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Methodological Issues
in the Exploration of
Teacher Thinking about Reading:
An Evaluation of the
Reliability and Validity of
Personal Construct Psychology

Thesis submitted for the degree of
Doctor of Philosophy
at the University of Leicester

by

Holly Jane Smith BSc (Leicester)
School of Education
University of Leicester

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Methodological Issues in the Exploration of Teacher Thinking about Reading: An Evaluation of the Reliability and Validity of Personal Construct Psychology

Holly J. Smith

Much research relating to reading has neglected to examine the attitudes and beliefs of teachers themselves. This study seeks to redress this imbalance by articulating and exploring teachers' personal theories in their own words. The pilot work compared the viability of using semi-structured interviews, repertory grid techniques and standardised questionnaires to achieve this aim. The results revealed the theoretical eclecticism and child centred pragmatism of participating teachers.

Considering the feedback from the pilot studies it was decided the main study should be undertaken within the theoretical framework of Personal Construct Psychology (Kelly, 1955). The participants were twenty KS1 and KS2 teachers drawn from eight Leicestershire Primary Schools. The main study followed these teachers over a 12 month period. At three points, approximately 6 months apart, the participants were interviewed in depth using an adapted form of Kelly's repertory grid technique.

Analysis of repertory grid structure revealed that the pattern of construct relationships for individual teachers remained stable over time as the mean Coefficient of Convergence was 0.77 over a 12 month interval. Intensity and the percentage variance accounted for by the first factor (PVAFF) of principal component analysis were highly correlated with values ranging between 0.89 and 0.95 at different phases of the study, confirming that they are both measures of cognitive complexity. They also proved to be stable characteristics of the individual with test-retest reliability for Intensity of 0.87, and 0.73 for PVAFF over a 12 month interval.

Thus this thesis makes a contribution to the study of reliability and validity of repertory grid techniques in a limited domain. The reliability of structural measures derived from the grid was shown to be comparable to most psychometric tests, and feedback interviews with teachers demonstrated validity in the recognition by teachers of the cluster analysis computed from their repertory grids. Directions for future research are discussed.

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Firstly, I would like to acknowledge the contribution of Dr Roger Merry my supervisor, who has encouraged me from the very beginning to the very end of my work on this thesis. He always had time to see me, always gave me good advice, and always returned my work unbelievably promptly. In fact he was in every respect an ideal supervisor. I consider myself very lucky to have had the opportunity to work with him.

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Holly J. Smith
5 September 1997

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1. Introduction

Reading is the single most important complex cognitive skill that most people in Great Britain today will ever learn. Reading is more important than ever before as technological advances have only increased the amount of information which has to be read, and varied the medium of presentation of the text. Our society demands universal literacy, and yet this has not yet been achieved. Those who cannot read fluently are denied access to almost every opportunity and so reading is a skill of enormous social and economic importance, for individuals and for our society.

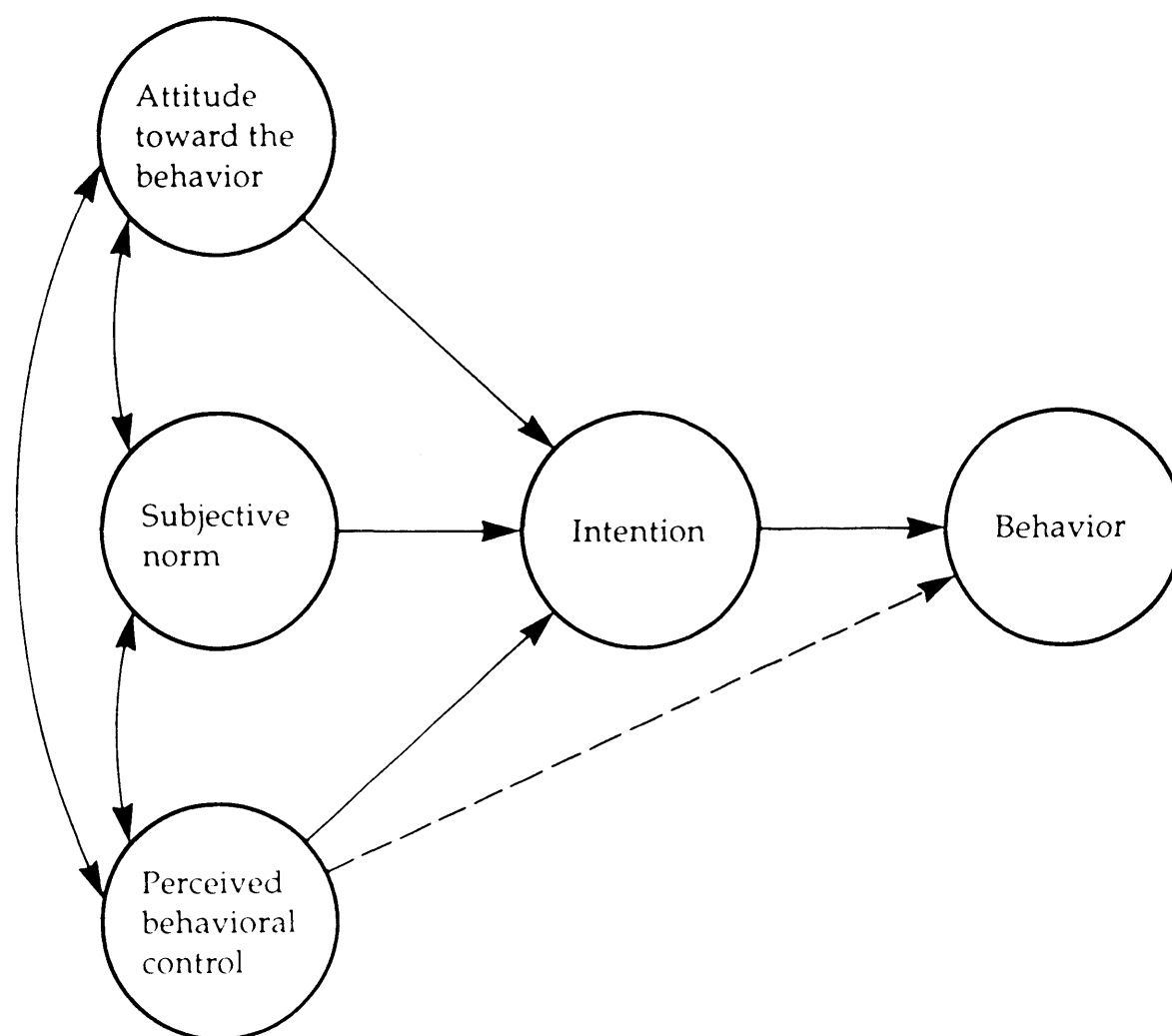
The failure to eradicate illiteracy in Great Britain in 1997 is perceived as a failure of teachers to teach children rather than a failure of government to address adult illiteracy. It is necessary to limit the discussion here, and so it will be confined to children learning to read in schools. The solution is perceived by our new government, as it was by the old one, to be higher standards in school. The solution is perceived by the teaching profession to lie in increased funding. The solution is perceived by various academics and educational experts as persuading teachers to change their behaviour and adopt their new teaching method.

This debate cannot move forward without considering why teachers may behave as they do. This question is of course no different from the more general question of why any human behaves as they do. The most relevant contribution to this area has been the conceptual framework provided by Ajzen & Fishbein's (1980) theory of reasoned action, later extended in Ajzen's (1988) model of planned behaviour.

Ajzen's model of planned behaviour recognises that many factors can come between the intention to carry out a behaviour and successful performance of that behaviour. The model also postulates three conceptually independent determinants of intention. These factors and the relationships between them are shown in figure 1-1 below. Perceived behavioural control refers to the perceived ease or difficulty of performing the behaviour, and it is assumed to reflect past experience as well as anticipated impediments and obstacles.

Attitude towards the behaviour is the individual's personal evaluation of performing the behaviour in question. Subjective norm is the person's perception of social pressure to perform or not perform the behaviour in question. Ajzen states that generally, the more positively an individual evaluates a behaviour, the more they believe that important others think they should perform it, and the greater their perceived behavioural control, then the stronger the individual's intention to perform that behaviour will be.

Figure 1-1 Model of Planned Behaviour, from Ajzen (1988).



I believe the missing link in the controversy about the teaching of reading is teachers' beliefs. The view of the teacher in the classroom has too often been ignored by the media and government, and neglected by researchers.

Therefore the aim of this thesis is to investigate primary teacher thinking about children learning to read. The following chapters describe the process by which I sought to achieve these aims in chronological order. Chapter 2 reviews the literature on reading, teacher

thinking and Personal Construct Psychology, closing with a definition of the research questions. Chapter 3 describes the pilot studies using semi-structured interviews, repertory grid techniques and questionnaires and closes with the recommendations for the main study. Chapter 4 outlines the method used in the main study to collect data and analyse the results. Chapter 5 describes the reliability and validity of repertory grids from previous research. Chapter 6 describes the results of the main study. Finally, chapter 7 concludes with a summary of the results and suggestions for future research.

2. Literature Review

2.1. Introduction

This chapter is divided into three sections, section 2.2. deals with reading and the enduringly controversial questions of how it takes place and how it is best taught. Section 2.3. presents the research on teacher thinking, particularly teachers' attitudes and beliefs. This focuses in some detail on methodology and reviews research specific to teacher thinking about reading. Section 2.4. presents Kelly's (1955) Personal Construct Psychology and repertory grid techniques, followed by a review of research into teacher thinking from this theoretical framework using these techniques.

2.2. Reading

2.2.1. Introduction

So much has been written on the subject of reading that it would be quite impossible to do justice to it here. The most thorough, exhaustive and balanced review of issues and research published to date is that of Adams (1990) and I do not hesitate to recommend it for further reference, although the history of the debate on reading is written from an American perspective. A very recent summary of the cognitive psychology of reading can be found in Underwood & Batt (1996), but this work is now widely disseminated and there are many good reviews. The aim of the following review is not to duplicate such work but simply to summarise what is relevant to set the background for the examination of teacher thinking that follows. In order to do this briefly and clearly many of the ideas are presented in a greatly simplified form. It seems useful to distinguish between theories about how the reading process takes place, how reading ability develops and theories about reading instruction, and so the material below is organised under these headings.

2.2.2.Theories of the Reading Process

Theories of how reading itself takes place can be divided into text-based, reader-based and interactive theories, but all remain within the paradigm of the information processing model of cognitive psychology. The information processing model of the reading process is now widely accepted and is supported by an ever growing body of research evidence from eye movement studies and computer programs which can simulate the reading process and deficits. The information processing model is best conceptualised as a useful tool to think about reading and it is not yet known whether the parts of these models will map directly onto the structure of the brain.

2.2.2.1.Text-Based

The most comprehensive and influential text-based model is that of Gough (1972). A representation of this model appears in figure 2-1. Gough claimed that information flows in a passive way through the human information processing system from the bottom-up. Thus visual information from print goes through a series of transformations with no influence from contextual information or higher order processing strategies. Gough's model stimulated a great deal of research because it made clear, testable predictions about what happens during reading, but this research has highlighted problems with the model. Gough (1985) has acknowledged that it is incorrect in claiming the phonemic route is the only one to the lexicon, and that individual letters are processed serially from left to right.

2.2.2.2.Reader-Based

The best known reader-based theories are those of Kenneth Goodman (1970) and Frank Smith (1971). A representation of Goodman's model appears in figure 2-2 below. To put it in a historical context it can be seen as a reaction in the 1970s against the mechanistic drill of much reading instruction. These models are also called top-down models because they stress that the 'top' of the information processing system, the part that is constructing meaning, which they claim controls the flow of information at all levels. Reader-based models contend that the reader forms hypotheses about what will be read next, in what Goodman called a 'psycholinguistic guessing game'. Goodman developed these ideas through observing beginning readers but there is convincing evidence that skilled readers do

Figure 2-1 The Gough (1972) Text-Based model of reading.

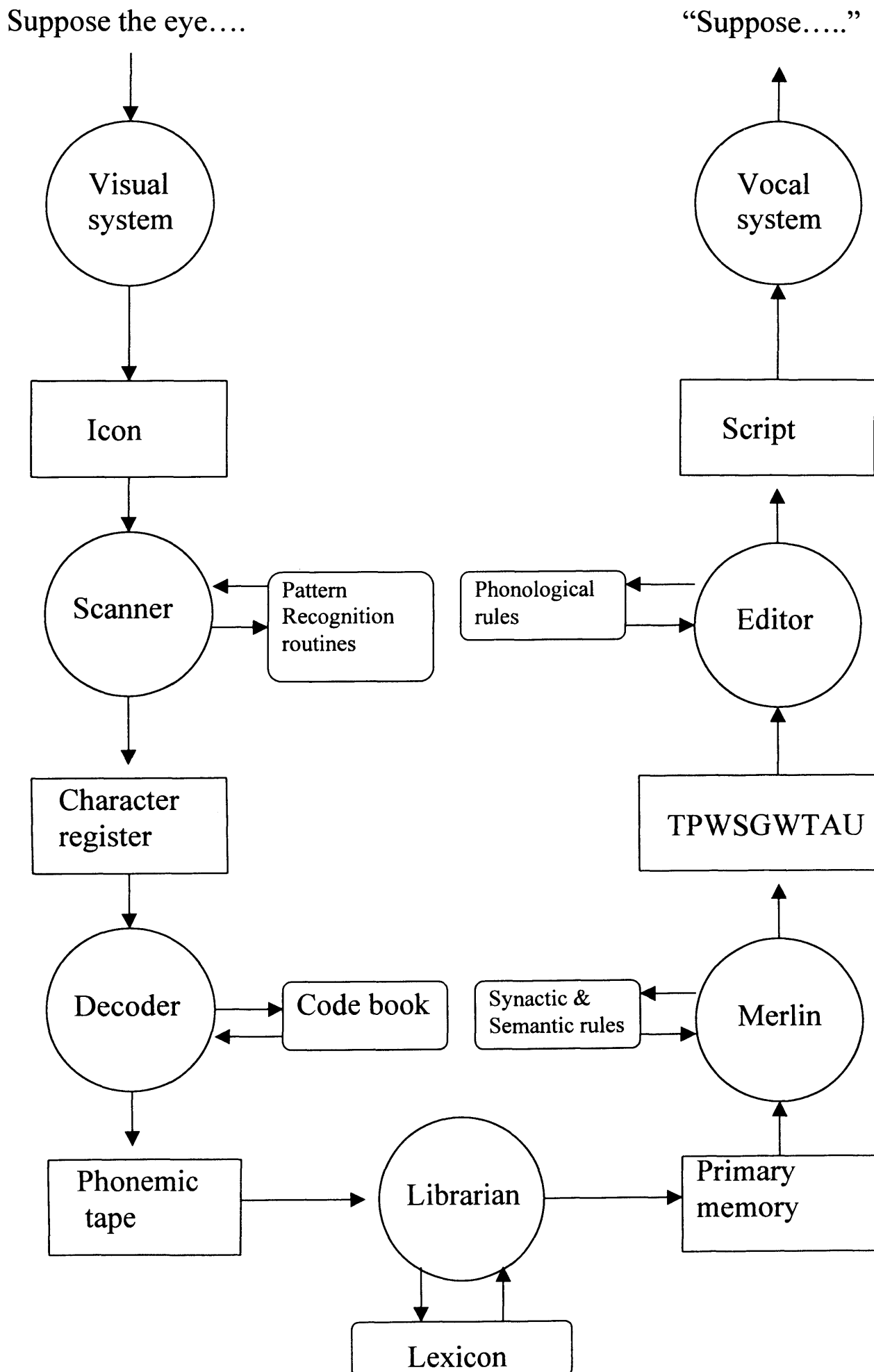
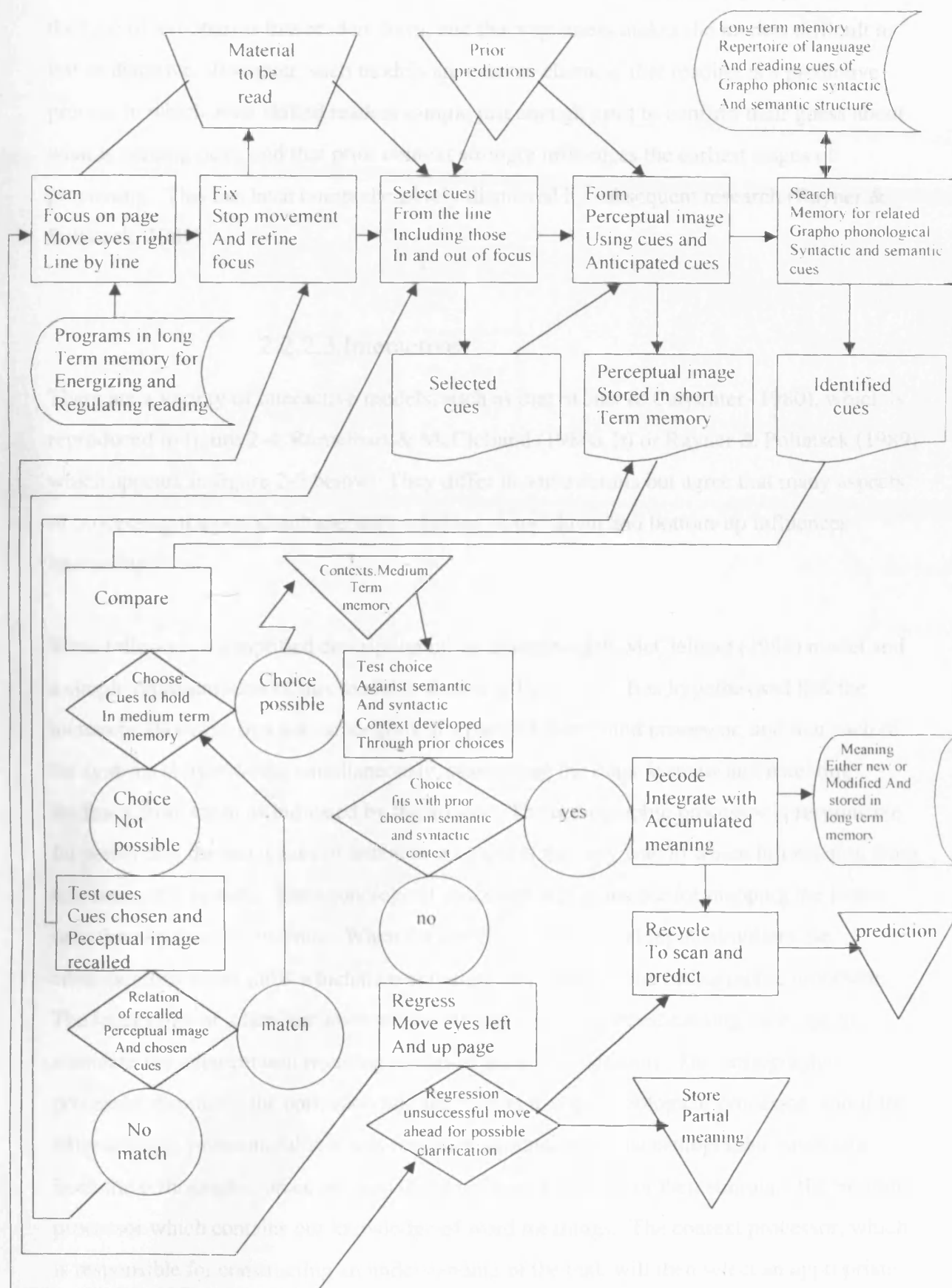


Figure 2-2 The Goodman (1970) Reader-Based model of reading.



not rely on context or engage in guessing in the same way as beginning readers (Stanovich, 1980). A problem with this model is that the authors have never been very explicit about the type of hypotheses that readers form, and this vagueness makes the models difficult to test or disprove. However, such models are clear in claiming that reading is a predictive process in which even skilled readers sample just enough print to confirm their guess about what is coming next, and that prior context strongly influences the earliest stages of processing. This has been comprehensively disproved by subsequent research (Rayner & Pollatsek, 1989).

2.2.2.3. Interactive

There are a variety of interactive models, such as that of Just & Carpenter (1980), which is reproduced in figure 2-4, Rumelhart & McClelland (1986a, b) or Rayner & Pollatsek (1989) which appears in figure 2-3 below. They differ in some details but agree that many aspects of processing happen simultaneously resulting in top-down and bottom-up influences interacting.

What follows is a simplified description of the Seidenberg & McClelland (1988) model and a simple representation of this model is shown in figure 2-5. It is hypothesised that the human brain works in a way analogous to a parallel distributed processor, and that each of the systems shown works simultaneously, stimulating the other systems and receiving feedback from them as indicated by the arrows. The orthographic processor is responsible for perceiving the sequences of letters in text, and is the only way in which information from text enters the system. The phonological processor is responsible for mapping the letters onto their spoken equivalents. When the eye fixates, the visual input stimulates the corresponding letter units which then stimulate word units in the orthographic processor. The letter units of a familiar word will be strongly interconnected causing each one to stimulate the adjacent unit resulting in almost instant recognition. The orthographic processor stimulates the corresponding letter units in the phonological processor, and if the letter string is pronounceable it will feedback stimulation to the orthographic processor. Both the orthographic processor and the phonological processor then stimulate the meaning processor which contains our knowledge of word meanings. The context processor, which is responsible for constructing an understanding of the text, will then select an appropriate

Figure 2-3 The Rayner & Pollatsek (1989) Interactive model of reading.

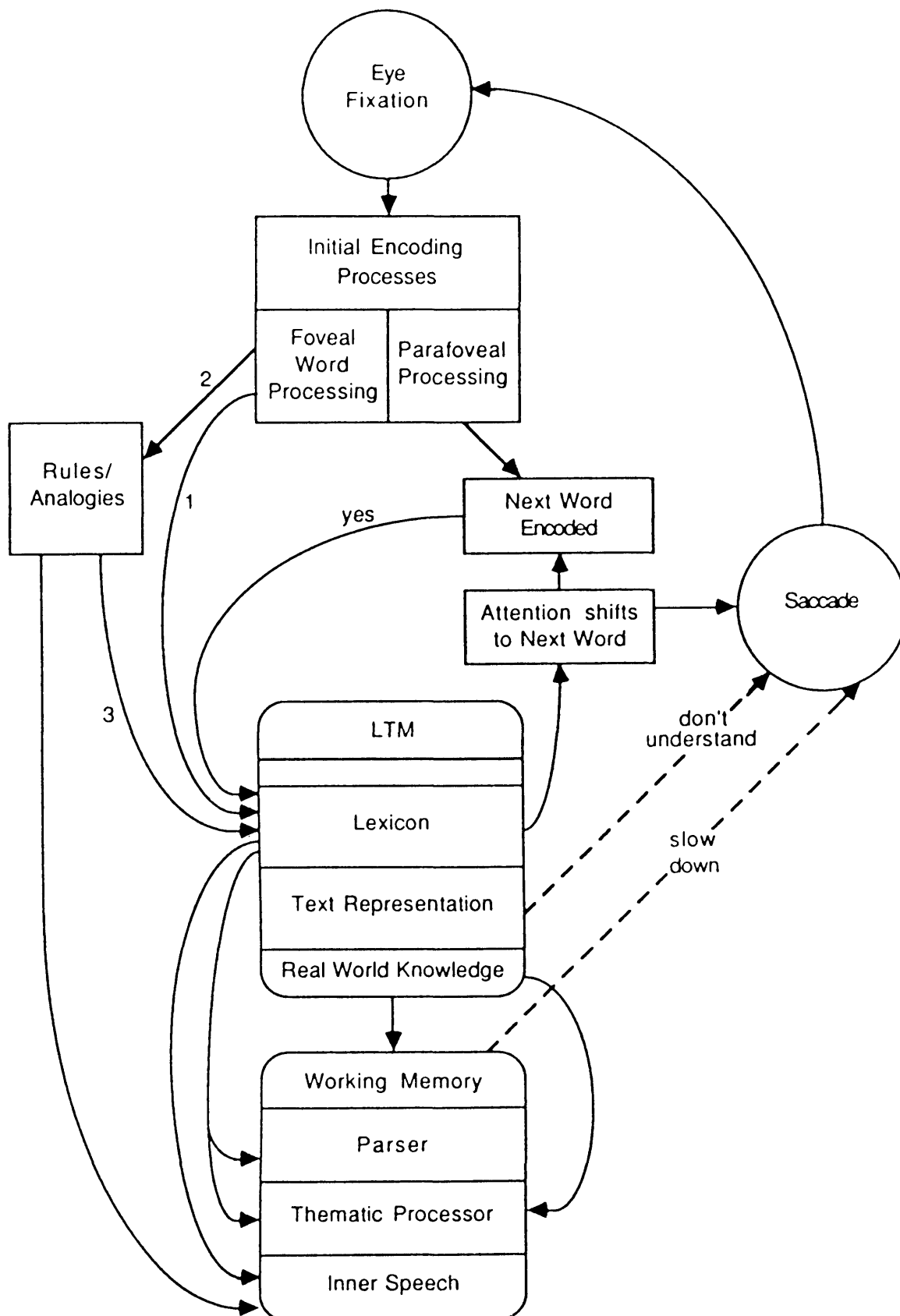


Figure 2-4 The Just & Carpenter (1980) Interactive model of reading.

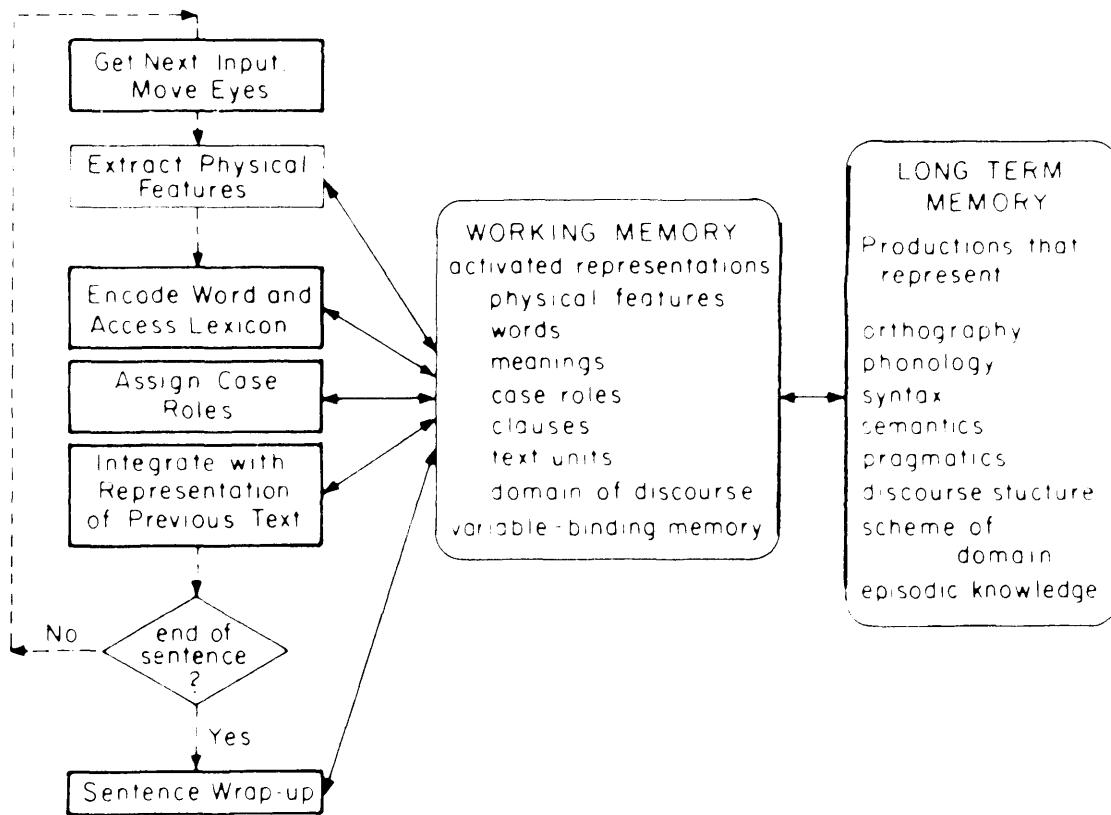
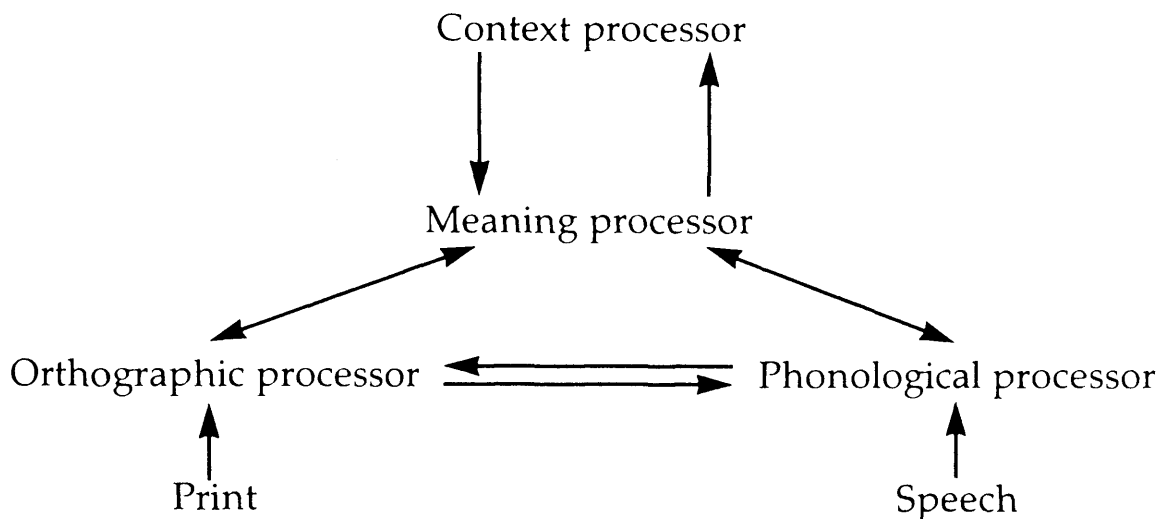


Figure 2-5 The Seidenberg & McClelland (1988) Interactive model of reading.



meaning from those stimulated which maintains the coherence of the text. This model is called interactive, as opposed to top-down and bottom-up, because each processor is simultaneously stimulating the processors above and below it, and if the processors agree then recognition is speeded up. All this takes place in a matter of milliseconds and so is not available to the conscious awareness of the reader. This recognition of the spelling, sound

and meaning of a familiar word is almost instantaneous and automatic for fluent readers, but crucially it depends on the strength of learned connections, and this learning can only take place through exposure to print.

2.2.3. How Reading Ability Develops

Marie Clay (1966) coined the term 'emergent literacy' to describe the reading and writing behaviours that precede and develop into conventional literacy. During this period children learn many concepts about print that could be considered pre-requisites to reading. Hall (1987) lists these concepts about print as follows:

- 1) when we read the print carries the message,
- 2) we read books from front to back,
- 3) we read print line by line, word by word,
- 4) books and print have a particular orientation, we read print from left to right from top to bottom,
- 5) print is made up of letters, words, punctuation and spaces,
- 6) print is different to pictures,
- 7) there is a special language associated with reading books: page, word, etc.

These understandings are often not explicitly taught but acquired by children through early experiences with adults and text.

A great deal of research in reading has focused on which skills children may have on entry to education best predict later achievement in reading. Chall (1967) reported that prereaders' knowledge of letter names was a strong predictor of success in reading. The huge United States Office of Education (USOE) Cooperative Research Program (Bond & Dykstra, 1967) also found that prereaders' letter knowledge was the single best predictor of reading achievement, while the second best was their ability to discriminate phonemes auditorily. More recently, Riley (1996) assessed 191 London reception children in September and again confirmed that their literacy skills (concepts about print, ability to write their name and ability to identify and name letters of the alphabet) were all positively related to reading ability in the following July. But Riley found the most powerful predictor of later success in reading was the child's knowledge of the alphabet. These findings have been extremely robust, reported in studies at different times in different countries, and are reported regardless of the type of reading instruction the children have received.

Adams (1990) reviewed the research regarding orthographic awareness which followed the publication of the USOE report examining the effect of training children in letter naming. She concluded that simply teaching children to name the letters of the alphabet does not improve reading achievement. She suggests that it is not just the accuracy with which children can name letters which seems to give them an advantage in learning to read, but the fluency or ease with which they can do so. Adams suggests this is because knowledge of the alphabet is a specific measure of the more general familiarity of the child with letters. It is this familiarity which makes it easier to remember sounds and thus gives the advantage in learning to read.

Bradley & Bryant (1983) began a whole series of studies regarding phonemic awareness and its relationship to reading achievement. Phonemic awareness can be assessed with phonemic segmentation tests, phoneme manipulation tests, syllable splitting tests and blending tests. Prereaders often find these very difficult so oddity tests, where children are presented with several spoken words and asked to identify the odd one out have also been used. Adams (1990) comments that while success on all these tests of phonemic awareness has been shown to predict success in reading it is also clear that reading experience improves performance on these tests. What is most exciting to the teacher is Bradley & Bryant's (1983) experimental study that demonstrated not only that these abilities grow together but that training in phonemic awareness can improve reading achievement. The children selected were 4-5 years old and identified as below average in phonemic awareness. The training was very limited (only 40 15 minute sessions over 2 years) but there were large, significant gains in reading achievement, and following them up at 13 years Bradley (1988) found some of this improvement remained. Maclean, Bryant & Bradley (1987), Bryant, Bradley & Crossland (1989) and Bryant, Maclean & Bradley (1990) have gone on to explore how traditional nursery rhymes provide exactly this sort of phonemic awareness training, and how it can lead to improved reading achievement.

For the child to move from emergent literacy to fluent reading Frith (1985) argues that the child learns to process print in qualitatively different ways through a series of stages. Frith (1985) describes the phases of development as follows:

- 1) The logographic phase, *where the child recognises words as a whole.*

2) The alphabetic phase, *where the child can distinguish individual letters of the alphabet and begins to apply grapheme-phoneme associations.*

3) The orthographic phase, *where the child has acquired sight memory for common orthographic units, which speeds up text processing as they do not have to resort to phonological processing.*

Frith believes that once a child has progressed through these phases they will then have all the strategies at their disposal and be able to integrate them resulting in fluency. Bradley & Bryant's collaborator Usha Goswami (1993) conceives of reading as a more interactive process where orthographic knowledge and phonemic awareness develop together and influence each other.

To summarise, it has been well established for a number of years that prereaders' orthographic awareness and phonemic awareness strongly predict later success in reading. It has been further demonstrated that training in phonemic awareness improves reading achievement.

2.2.4.Approaches to Reading Instruction

Theories about how reading takes place have implications about how reading should be taught, and so historically reading instruction has been subject to radical changes as ideas about how the process of reading happens have changed.

2.2.4.1.Skills Approaches

This approach is also known as word recognition or a 'look-and-say' or whole word approach. The rationale for such an approach is that many common English words are irregular. Therefore, it is argued that it is most useful to a child to learn complete words at the earliest possible stage. Appropriate methods for training children to associate a certain orthographic pattern with a familiar word might typically involve using 'flash cards' of common printed words. Problems with a skills approach are that they can be mechanical and meaningless to the child, and they do not explicitly encourage the child to make grapheme phoneme connections.

2.2.4.2.Holistic Approaches

The implication of reader-based theories of reading is that children should learn to read in the same way that they learn to speak, by enjoying interaction with a supportive adult. Waterland's (1985) apprenticeship model of reading is typical of this approach in its claims that reading cannot be taught in a formal sequenced way, that reading is extracting meaning rather than the fluent use of a series of subskills, and that reading can only be fostered by a friendly adult allowing the child to choose personally meaningful books from a wide range of 'real' books. The name of the 'real books movement' which is associated with Liz Waterland is so unfortunate it led the author herself, Waterland (1992), to redefine the distinction as 'battery books' and 'free-range books'. However, the implication remains that any book written for the purpose of assisting a child to learn to read is necessarily lacking in any literary value. The ideas of the apprenticeship and real books movement are shared by many approaches and there are many other proponents, such as Meek (1982, 1988). These ideas are known by many different names; what is called the whole language approach in America, and the minimal teaching movement. While this approach is rather nebulous, reading instruction based on these ideas could be categorised as a meaning emphasis approach. In an NFER survey of the texts set by teacher training institutions Gorman (1989) described it as "the orthodox academic approach to the teaching of reading" (p.8) at that time. However, critics such as Margaret Donaldson (1989) and Joyce Morris (1989) have argued successfully that reading differs from speaking in several crucial aspects and cannot be acquired in the same way.

2.2.4.3.Phonic Approaches

The implication of interactive information processing models of reading is that it is not possible to read fluently and accurately, and leave processing capacity for comprehension, without extremely fast and automatic letter-by-letter decoding. Therefore, explicit teaching about how the sounds in speech relate to print is recommended as early as possible. Interactive theories of reading recognise the reciprocal relationship between reading and the subskills of reading; that they are mutually reinforcing. Doing reading improves the subskills of reading by strengthening the association between common letter sequences which increases the rapid automatic recognition of words. Approaches using explicit instruction about phoneme grapheme relationships vary in exactly what they prescribe but

they could all be categorised as code emphasis approaches. A modern example of a rigorous phonic approach in the UK is the Phonics 44 program developed by Morris (1984).

2.2.5. Conclusion

A great deal is now known about the mechanics of how skilled reading takes place from information processing models, and an interactive model is widely accepted. It is also known what entry skills predict progress in reading, and what instructional methods have proved most useful in teaching reading.

The National Curriculum appears to be eclectic in the implicit assumptions about reading it makes. There is a great emphasis on stories and reading for meaning, but also the explicit requirement to focus on phonics. The importance of children's pre-school literacy experience is recognised, but the National Curriculum cannot legislate for parenting, so the problem of the gap in children's literacy experience when they arrive at school may be insoluble. The eclecticism of the National Curriculum is not without conflict but would seem to reflect most teachers' beliefs and practice which are pragmatic.

2.3. Teacher Thinking

2.3.1. Introduction

The research on reading described above is a product of research carried out in universities, published in learned journals and in many ways divorced from the everyday instructional practice of teachers. It is necessary to examine research on teacher thinking because it is the teacher who must understand the models of reading outlined above and put into practice the approaches to reading instruction. Therefore teachers' thought processes must surely be of interest. While the impact of the school relative to that of the home may be small in the early years of reading, parental thinking has been largely ignored, perhaps because of the difficulty for researchers in gaining access, or even because those commissioning research believe it is fruitless to examine parental thinking as it cannot be controlled. The aim of understanding teacher thinking has been to seek to influence it, because teachers are more amenable to this influence than parents as paid employees of the state, just as the content of

school dinners is more easily influenced by the state than what children eat at home, however many public information posters or leaflets on nutrition are produced. However, from a historical perspective neither teacher thinking nor parental behaviour has received a fraction of the attention which reading itself has attracted. In recent years this has begun to change, and it is valuable to consider the historical trends in academia which have led to a new interest in the vital area of teacher thinking.

2.3.2. History of Research on Teacher Thinking

According to Clark & Petersen (1986) teaching consists of two domains:

- 1) teachers' thought processes,
- 2) teachers' actions and their observable effects:
 - i) teacher behaviour,
 - ii) student behaviour,
 - iii) student achievement.

Teachers' actions and their observable effects have been the traditional focus of research, being more amenable to measurement. Such research has attempted to identify criteria for excellence in teaching by estimating the effect of teacher behaviour on student achievement. The aim of this kind of process-product research is to improve teacher effectiveness. It assumes that causality is unidirectional.

However, research into teachers thought processes has continued to grow since Jackson's (1968) attempt to describe and understand the mental constructs that underlie teacher behaviour. Recently this growth has been accelerated. In a very thorough review of the area Fang (1996) states that "the study of teacher cognition is receiving added attention in the literature on teaching in general and on the subject area of reading/literacy in particular." (p.48). This recent interest in a previously neglected area of research on teaching is attributable to several factors; changes in theoretical orientation in psychology over this period; the impact of the model of the teacher as a reflective practitioner after the publication of Schön (1983) and the interest in teachers' personal theories.

Psychology has always been a close influence on educational research, not only in the area of developmental psychology and child behaviour but more importantly in providing research paradigms and methodologies. Since the 1950s psychology in the West has moved

from the behaviourist paradigm to a cognitive paradigm. Behaviourist psychology ignored all cognitive processes using the 'black box' as a metaphor for the organism where only input and output can be observed, and maintaining that it was fruitless and misleading to speculate about such cognitive processes. Cognitive psychology broke radically from behaviourism insisting that behaviour cannot be understood without attempting to understand what goes on inside the mind of the organism. Cognitivism uses the computer as a metaphor and artificial intelligence as a model for human thinking. More recently, under the influence of postmodernism, there has been an increased interest in psychology in the individual's perceptions and greater privileging of more qualitative methodology.

Schön (1983) fundamentally questioned whether academic research yields useful professional knowledge, and whether the professional knowledge taught in universities prepares students for real-world practice. Schön believes that universities give privileged status to systematic, preferably scientific, knowledge over professional competence. He argues for a new epistemology of practice that starts from the artistry of skilful practice based on reflection-in-action. Schön's idea of the reflective practitioner has been enormously influential in education, but not psychology, as would be expected from their respective status as professional and vocational or academic subjects.

The historical roots of these ideas are traced by Cole (1990) writing about her concept of personal theories of teaching.

The concept of personal theory has its epistemological roots in the writings on personal knowledge of Ryle (1949), and Polanyi (1958) and in Kelly's (1955) theory of personal construct. Similar to the more recent notions of personal philosophy (Kroma, 1984) and personal practical knowledge, a term coined by Connelly & Diennes (1982) and developed by Connelly & Clandinin (1985), the concept of personal theory is most like Hunt's (1987) notion of implicit theories and Handal & Lauvas' (1987) practical theory.

Cole (1990) p. 204

All these authors do indeed appear to be seeking to describe the same concept, and demonstrate that while these ideas are not new, interest in them is growing.

These factors have combined in recent years in creating a new interest in research on teacher thinking from several perspectives. Clark & Petersen (1986) claim that this new

emphasis on the investigation of teachers' thought processes will lead to greater understanding of why the process of teaching appears as it does. Stern & Shavelson (1983) state that this new paradigm rests on two basic assumptions:

- 1) teachers are professionals who make reasonable judgements and decisions within a complex environment,
- 2) teachers' thoughts guide their classroom behaviour.

Clark & Petersen (1986) categorise teachers' thought processes into three types derived from Jackson's (1968) distinction between preactive, postactive and interactive phases of teaching:

- 1) teacher planning,
- 2) teachers' interactive thoughts and decisions,
- 3) teachers' theories and beliefs.

They state that theories and beliefs make up an important part of teachers' general knowledge through which they perceive process.

2.3.3.Methodology

One reason for the relative neglect of teacher thinking in research on teaching historically is the difficulty of gathering data on what is essentially a private, internal and invisible aspect of teaching. All research paradigms which attempt to gain access to the thoughts of teachers are subject to some criticism of their reliability and validity. However, the difficulty of data collection is not proportional to the value of the data. Thus it is worth considering the criticisms and claims of various methods which have been used to gather data on teachers' cognitions in some detail.

2.3.3.1.Questionnaires

Questionnaires are perhaps the simplest method of eliciting teachers' self-reports. They have the advantage of being fast which makes it easy to collect data from a large number of participants. They can have the disadvantage of poor returns if they are administered by post, making it difficult to generalise the results as they are not from a random sample. If questionnaires are administered one-to-one this usually removes this problem, but then they

cease to be a fast and cheap way to gather data. However, in such circumstances a questionnaire can become the basis of a structured or semi-structured interview.

The most serious difficulty with questionnaires as a research method is that they often depend on researcher determined statements or categories which may have little validity to the participant. By contrast the reliability of questionnaires is relatively easy to establish, split-half reliability can be part of the questionnaire design, alternate forms of the questionnaire can be administered or the same form simply repeated to get test-retest reliability.

2.3.3.2. Process Tracing

Such a description is used to cover a variety of procedures for eliciting self reports. Some commonly used are:

- 1) Thinking aloud, *where teachers are asked to verbalise their thoughts while actually carrying out an instructional task.*
- 2) Retrospective interview, *where teachers are asked to describe their thought processes after completion of an instructional task.*
- 3) Stimulated recall, *a form of retrospective interview where the teacher is played a recording of themselves performing an instructional task and asked to recall and describe their thought processes. This makes it more suitable for investigating interactive classroom tasks than thinking aloud. For greater detail on conducting stimulated recall sessions and analysis of the resulting protocols see Tuckwell (1980a, 1980b).*
- 4) Journal keeping, *where teachers are asked to keep a written record of their thoughts or actions about some aspect of their teaching.*

All methods can be used to produce a written protocol of teachers' thinking which can be analysed in different ways.

The validity of all such process tracing methods remains controversial. Nisbett & Wilson (1977) argued that verbal reports cannot be considered legitimate data because there is no evidence that humans have introspective access to higher order cognitive processes. They go on to suggest that such verbal reports are based on a priori, implicit, causal theories about whether a particular stimulus is a plausible cause for a particular response. They identified three problems with individuals' reports of their own cognitive processes:

- 1) unawareness of a stimulus,
- 2) unawareness of the existence of a response,
- 3) unawareness of the influence a stimulus has on a response.

However, Ericcson & Simon (1980) claim that process tracing data can be legitimate, but that the timing of verbal reports, the form of information being processed, the demands placed on the information, and the breadth of what is reported must be taken into consideration. According to information processing models of memory, what is in Short Term Memory (STM) is available for recall before it is processed and stored in Long Term Memory (LTM). Thus information processing theory has implications for the use of process tracing methods. Armour-Thomas (1989) has attempted to specify these implications and argues that thinking aloud may be more valid than retrospective interview, stimulated recall or record keeping as it probes STM which is directly available and closely related to ongoing cognitive processes. The other methods require the individual to retrieve information that is not readily available from LTM and so the amount of reconstruction and invention will be higher. However, the more immediate and direct the probes, the greater the likelihood of interrupting and distorting ongoing cognitive processes, the very data that these methods seek to access.

2.3.3.3. Policy Capturing

This method was developed in psychology and uses vignettes of hypothetical cases or situations to obtain teachers' judgements. In a typical policy capturing study the researcher has identified several features of a case or situation which may influence teacher judgement. Every possible permutation of features is arranged to produce a series of printed vignettes. These vignettes are presented to the teacher who is asked to make one or more judgements from the description which are often recorded on a Likert scale. For example, a teacher could be presented with a series of descriptions of children and asked to decide which reading group to put them into. The features being manipulated in the descriptions could be gender, reading test score, family background, enthusiasm for reading and so on. The teacher's judgements are recorded and transformed into linear regression equations where the relative weighting of the feature variables in the vignettes is described. The regression equation is a model of the teacher's policy about the features of the vignette about which they gave their judgements. So, in our example it might be found that the judgement about

which reading group the hypothetical child should be placed in depends more on enthusiasm for reading than reading test scores; the variable enthusiasm has a higher weighting in the regression equation than the variable test score.

Armour-Thomas (1989) highlights the problems with the ecological validity of policy capturing techniques. While the technique can simulate teachers' decision making it does not always allow teachers to give explanations for their policy and so it is limited in the extent to which it actually describes teachers' cognitive processes. Further, policy capturing is useful for predicting the effect of certain variables on teachers' decisions, but it does not allow the identification of the effect of any variable not included in the vignettes by the researcher. Finally, as Shavelson, Webb & Burstein (1986) observe, classroom teaching is very interactive and teachers' decision are rarely final but are continually revised in the light of new information.

Payne (1982) identifies three sources of error in the reliability of policy capturing studies:

- 1) variation in the teacher's judgement on the same vignette on different occasions,
- 2) inconsistencies in judgements due to slight changes in wording on equivalent vignettes,
- 3) variation in teacher judgement due to fatigue or boredom.

Of all the methods used to examine teacher thinking policy capturing depends least on self-report. It can be used to capture the policy of individuals or of a population. However, it is rather limited in application as it can only be used to obtain relatively simple judgements about cases or situations with a small number of features, typically five or less.

2.3.3.4. Concept Mapping

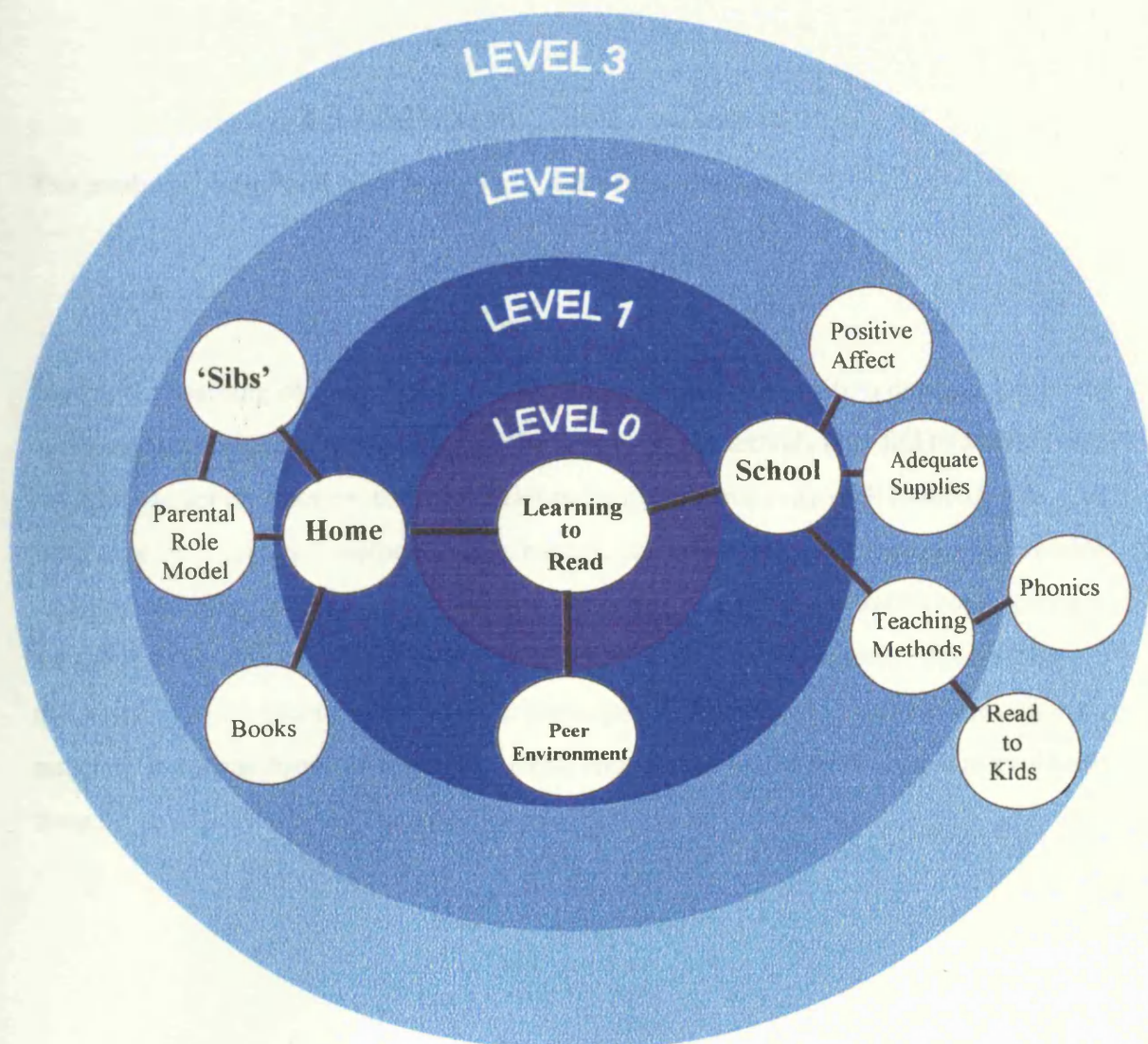
Concept maps, also called ordered trees, are a very new and exciting research method. They are elicited by asking participants to draw, literally to map, the relationships between various concepts as they perceive them. For example, Mergendoller & Sacks (1994) asked teachers why children struggle with reading, and elicited the example shown in figure 2-6. The terms to be organised and arranged could be supplied by the interviewer or spontaneously generated by the teacher.

The concept map elicited in this way can be analysed in terms of structure and content. The rationale for examining structure is that it the organisation reflects the complexity of the participants' thinking. Measure of structure which have been examined include:

- 1) Number of nodes, *the number of distinct concepts included in the concept map.*
- 2) Number of links.
- 3) Number of chunks, *which is the number of nodes which have 2 or more deeper level nodes attached to them.*
- 4) Total depth, *the sum of the level of depth multiplied by the number of nodes at that level for each level.*

Content can be examined by coding the content of the concepts if these were spontaneously generated by the participant. This overcomes many of the criticisms of the lack of personal meaning to teachers of questionnaire methods and policy capturing.

Figure 2-6 Concept Map, from Mergendoller & Sacks (1994).



The reliability of such measures over time could be simply established by repeating the procedure with the same individual, but the rationale for this procedure depends on the dubious premise that the structure and content of individuals' beliefs do not change over time. Perhaps it is better to consider concept mapping as a means to produce a snapshot of an individual's thinking at one moment. This permits the explicit study of changes in teacher thinking, an interesting and important topic for professional development which has previously proved difficult to measure.

The advantage of this method is that it can be totally open ended if participants generate their own content and structure, and this way of describing ideas certainly has some intuitive validity. However, if concept maps are entirely idiographic it makes comparisons between different individuals, or even between the same individual at different times, very problematic. Concept mapping has been employed successfully using various measures described above (Beyerbach 1988, Strahan 1989, Mergendoller & Sacks 1994) but a single established procedure does not yet exist.

2.3.3.5. Repertory Grid Techniques

This method is described fully in section 2.4.2. of this chapter.

2.3.3.6. Conclusion

Finally, the warning of Fang (1996) that the study of teacher cognition depends largely on various paper and pencil measures must be noted. Such methods may fail to address teachers' personal experience. Fang believes future research may seek to rectify this imbalance by using such methods as life history, narratives and autobiography to examine teachers' thought processes. Certainly I believe the greatest danger in current research is the threat to validity of using researcher defined questions and categories that may be meaningless to the practitioners who are participants. Idiographic methods like concept mapping and some forms of stimulated recall and repertory grid techniques can avoid this danger.

2.3.4.Review of Research on Teachers' Theories and Beliefs

Having considered the difficulties and advantages of various methods, the results of research into teachers' beliefs and theories using these methods can now be reviewed. This review will make particular reference to studies of teachers' theories and beliefs about reading instruction and how children learn to read.

2.3.4.1.Questionnaires

The earliest attempt to use a questionnaire to identify teachers' beliefs about reading took place at the Institute for Research on Teaching (IRT) at Michigan State University. Gerald G. Duffy was co-ordinator of the Conceptions of Reading (COR) project which ran from 1976-1980 and sought to investigate teacher thinking about reading. Duffy & Metheny (1979) describe how the Propositions about Reading Inventory (PRI) to identify teachers' beliefs about reading was developed over two years. This rather tortuous process began with the researchers' identification of five possible conceptions of reading from standard texts on reading. The five conceptions of reading were:

- 1) Basal textbook, *the English equivalent would be a reading scheme, so a scheme based approach.*
- 2) Linear skills, *a model of reading as a hierarchical set of skills.*
- 3) Interest based, *utilising pupils' preferences for non-scheme books.*
- 4) Natural language, *including both psycholinguistic and language experience approaches.*
- 5) Integrated curriculum, *a functional conception of reading as an activity that should be meaningful to pupils and used across the whole curriculum.*

The PRI underwent very many pilots and revisions having between 36 and 70 items and at one point including a sixth conception of reading; a confused, frustrated or non-reading based approach. Most of the revisions and rewritings were for pragmatic reasons and it is sometimes difficult to see any theoretical justification for them. After making observations of classroom teachers the researchers further identified six criteria used by teachers for judging pupil success in reading that cross the five dimensions of conceptions of reading. So, six new items were written to reflect these criteria and added, one for each of the five

dimensions. The final version consists of 45 items, 9 for each of the five dimensions above. They are in the form of propositions which teachers must rate on a 5 point Likert scale from strongly agree to strongly disagree. This final form of the questionnaire was piloted with 178 graduate and undergraduate students enrolled at MSU in the summer of 1978. The reliability coefficients for the five subscales (Cronbach's alpha) are shown in the table below.

Table 2-1 Reliability Coefficients for the PRI subscales, from Duffy & Metheny (1979).

basal text	0.78
linear skills	0.71
interest based	0.67
natural language	0.71
integrated curriculum	0.62

Duffy & Metheny (1979) also report that a factor analysis was conducted on the individual items and the five subscales using a varimax rotation. The authors state that a three factor rotation showed the clearest solution for the items. The interest based, natural language and integrated curriculum items load on the first factor while the basal text and linear skills items load on two separate factors but share some variation. A two factor and three factor solution was applied to the five subscales. In both cases the basal text and linear skills dimensions load on factor II while the interest based, integrated curriculum and natural language dimensions load on factor I, or factors I and III in the three factor solution. The results of the factor analysis do cast doubt on the validity of the five dimensions used in this questionnaire. Despite the great number of rewrites for which the sole aim was to produce five clearly distinguishable dimensions they have not emerged in the factor analyses.

The final version of the PRI published by Duffy & Metheny (1979) appears in full in appendix G. However, due to the lack of validity of the five dimensions it uses, it has not been taken up and used by other researchers to a great extent.

More successful and certainly more widely used is the Theoretical Orientation to Reading Profile (TORP) devised by DeFord (1978) in her doctoral thesis at Indiana University. This was eventually published by DeFord (1985) and this version consists of 28 propositions

about reading which teachers are required to rate on a 5 point Likert scale from agree strongly to disagree strongly. The TORP contains 3 subscales designed to tap three theoretical orientations to reading which DeFord derived from examining and categorising American instructional programs, which are described below. The phonic orientation programs initially emphasise smaller than word level language units with later movement towards larger units and comprehension. The skills orientation programs emphasise building an adequate sight word vocabulary. The whole language orientation programs provide quality literature from the outset with an initial emphasis on developing a sense of story as a framework for dealing with smaller units of text. The subscales have the following number of items and are presented in a randomised order.

phonics	8 items
skills	10 items
whole language	10 items

DeFord conceptualises these orientations as part of a continuum emphasising increasingly larger units of language rather than as distinct categories. DeFord states that there will be points of overlap between adjacent orientations and this is illustrated in figure 2-7. Reading instruction characterised as eclectic should fall in the middle of the continuum.

Figure 2-7 Continuum of Instruction, from DeFord (1985).

phonics	skills	whole language
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The TORP was validated with 47 teachers and experts in the field of known orientation and revised. It was further validated with another 90 teachers, $n=30$ for each of three groups identified as holding phonics, skills and whole language orientations. DeFord (1985) also reports that the TORP questionnaire is a reliable measure of differences in theoretical orientation to reading ($r=0.98$). In addition DeFord reports that 14 teachers were observed teaching reading and their responses to the TORP predicted by the observer. The teachers' actual responses to the TORP were then rank ordered and correlated with observers' predictions, producing a Spearman's rho of $r=0.86$, $p<0.001$. This suggests significant consistency between teachers' instructional practice and their theoretical orientation as measured by the TORP. Commenting on the lack of consistency found by Bawden, Buik & Duffy (1979) using the Propositions about Reading Inventory DeFord (1985) states "Their definition of conception of reading and the models of reading on which the TORP

are based are very different.” (p.364). She goes on to suggest that the consistency that she reports and the inconsistency reported by the COR team may be due to their differences in definitions of theoretical orientation.

The final version of the TORP published by DeFord (1985) appears in full in appendix F. It has not yet been revised or updated but many studies have used this questionnaire for a variety of purposes. For example, Hoffman & Kugle (1982) carried out a particularly relevant study to examine the relationship between teachers’ theoretical orientation to reading and the verbal feedback they gave to pupils reading aloud. The authors used both the DeFord TORP and Duffy & Metheny’s Propositions about Reading Inventory to measure 35 experienced teachers’ beliefs about reading. The relationship between the two questionnaires are shown in the table below.

Table 2-2 Correlations between TORP score and PRI subscales, from Hoffman & Kugle (1982).

	TORP score
basal text	0.17
linear skills	0.49**
interest based	-0.11
natural language	-0.47**
integrated curriculum	-0.06

** $p < 0.01$

Reviewing previous research Hoffman & Kugle (1982) conclude that evidence for consistency between theoretical orientation and instructional practices is mixed. However in their study they report finding a significant relationship between the linear skills, natural language and integrated curriculum subscales of the Duffy & Metheny (1979) PRI and the percentage of times each teacher waited longer than 3 seconds to respond to miscues with high meaning change. They report no significant correlations between any scale and the percentage of times each teacher gave no feedback to miscues with low meaning change, or the number of times each teacher gave contextual cues to miscues relative to all instances of sustaining feedback. There were no significant correlations between the TORP scale and any of these measures. So this study also appears to show very little evidence for consistency between teachers’ theoretical beliefs and their instructional practice, at least in

the domain of feedback to oral reading miscues. However, Hoffman & Kugle (1982) question the notion that teachers' beliefs can be validly assessed by paper and pencil questionnaires at all and point to the results of their focused interviews with the same teachers which did indeed produce far more theoretical explanations for the verbal feedback given to pupils. They also comment that most teachers find completing such questionnaires a very frustrating experience, frequently responding 'it depends' to the items.

More recent variations on the questionnaire method include an excellent study by Johnson (1992) which sought to extend the research examining consistency in beliefs and practice in reading instruction to English as a Second Language (ESL) teaching. She designed and piloted a multidimensional TESL Theoretical Orientation Profile (TOP) which is really more than a questionnaire. The TESL TOP consists of an Ideal Instructional Protocol, a Lesson Plan Analysis Task and a Beliefs Inventory. The aim was to determine whether teachers possess beliefs about the teaching of English as a second language which are skill-based, rule-based or function based. The Beliefs Inventory consists of 15 statements about ESL teaching, 5 reflecting a rule-based orientation, 5 skill-based and 5 function-based. The ESL teachers had to choose the 5 statements that most closely reflected their own beliefs and were assigned a percentage for each dimension based on the proportion of statements they selected. As the instrument was only used with 30 teachers no statistics for reliability or validity are provided, but 60% of teachers are reported as possessing a dominant theoretical orientation, defined as choosing four consistent statements selected from the Beliefs Inventory. Johnson (1992) went on to select three ESL teachers with different theoretical orientations to observe and judged their practice to be consistent with their theoretical orientation.

One of the latest attempt to measure teachers' beliefs in a questionnaire was by Muchmore (1994) who sought to explore the relationship between beliefs and practice in reading teachers. He states that the proposition inventory he developed to measure beliefs is similar to DeFord (1985) and Duffy & Metheny (1979). Muchmore's inventory has 4 theoretical orientations to compensatory reading instruction and consists of 12 propositional statements to which the teachers responded on a 5 point Likert scale. The 4 theoretical orientations are adapted from Wixon & Lipson's (1991) classification of perspectives on reading problems and are described as follows:

- 1) Perceptual deficit, *assumes reading is a complex neurological process and that reading problems develop when there are deficits in this area.*
- 2) Skills, *based on the assumption that reading consists of a discrete set of skills and reading problems arise when these skills have not been mastered.*
- 3) Strategies, *belief that reading is the appropriate use of strategies (such as asking if it makes sense) and reading problems arise through a lack of such strategies or their inappropriate use.*
- 4) Social, *defines reading as the construction of meaning through print in response to personal and social needs, thus reading problems develop when there is a mismatch between the reader's needs and the context of the reading situation.*

So Muchmore's proposition inventory is similar in methodological approach to other inventories, applied to the slightly different area of remedial reading instruction. Practice was assessed by 4 instructional vignettes each of which represented one of the 4 theoretical orientations. The proposition inventory and vignettes were validated by a panel of 7 experts. Muchmore (1994) found 82% of the 1045 Kentucky teachers could be classified as holding a dominant theoretical orientation. He also found considerable inconsistency between beliefs and instructional practice.

The move to using instructional vignettes represented by Johnson (1992) and Muchmore (1994) transforms the questionnaire method into a more powerful research tool for exploring consistency and inconsistency in teachers' beliefs and behaviour, but it does not overcome the dependence on paper and pencil measures and researcher defined categories.

2.3.4.2. Process Tracing

Although this method is widely used in education, so far it has been used for assessing teachers' decision making rather than their attitudes and beliefs. Therefore its potential for exploring teacher thinking has not been fully realised. An example of an archetypal process tracing study is the investigation of Savage & Desforges (1995) into teachers' judgements about children which involved video taping three teachers of 5-7 year olds, showing them the video and asking them to describe what they were thinking as they had acted. However, no studies have addressed reading instruction specifically using this methodology.

2.3.4.3. Policy Capturing

Perhaps due to the statistical complexity of analysis of this method it has hardly been used in education at all. However, a few studies have reported using policy capturing to investigate teachers thinking about reading. In her doctoral thesis at the University of California Russo (1978) produced vignettes of 32 children which varied on the dimensions of:

- 1) reading achievement,
- 2) math achievement,
- 3) gender,
- 4) class participation,
- 5) problematic behaviour.

The task for 32 teachers was to estimate the likelihood each of these hypothetical pupils would master the curriculum and sort them into 4 groups for reading instruction.

Borko & Cadwell (1982) asked 41 elementary teachers in the Southern California area to make decisions about classroom organisation and management. The descriptions of pupils were varied at two levels on the following six dimensions to produce 64 vignettes:

- 1) gender,
- 2) achievement,
- 3) rule following behaviour,
- 4) independence,
- 5) social competence,
- 6) self-confidence.

The authors cite Borko, Cone, Russo & Shavelson (1979) to justify this selection by stating that this is the information to which teachers attend in forming impressions and making educational decisions. The teachers were asked to make 3 judgements about student aptitude and 7 pre-instructional decisions about 32 student vignettes. As this study was not specifically about reading the most relevant finding is that individual teachers' policies varied widely. Also, the differences in policies could not be related to teacher characteristics such as progressive or traditional educational beliefs, teaching experience, involvement in peer tutoring programs, education, gender or whether they felt the study was realistic. The authors carried out cluster analyses to see if there were groups of teachers who shared the same policy but failed to find any for teachers' decisions about aptitude or pre-instructional decisions. Therefore it would appear that the extent of individual

differences in teacher thinking is so great that the unit of analysis for policy capturing must be the individual teacher.

Borko & Niles (1982) focus on teachers' decision making in placing 32 hypothetical students into 3 reading groups. The 32 vignettes are varied on 5 dimensions which are each described either positively or negatively, the 5 dimensions are:

- 1) standardised reading achievement score,
- 2) self-correction of errors during oral reading,
- 3) class participation,
- 4) social competence,
- 5) classroom behaviour.

Gender was not systematically varied as Russo (1978) had not found it to be a significant factor. The participants were 40 teaching students and 27 of their teacher tutors and they also completed Duffy & Metheny's (1979) Propositions about Reading Inventory. The policy capturing task was to judge on a 6 point Likert scale how likely it was that each child, as described in the vignette, would master the reading curriculum by the end of the school year, how likely the child would be to make a positive impact in classroom life and finally to group the 32 into 3 reading groups. The participants were given no criteria for forming these reading groups except that they should be of approximately equal size, but they were later asked to describe the groups, the criteria they had used to form them and any child for whom placement had been difficult.

The responses to the PRI were categorised not on the original 5 dimensions but on 2 dimensions subsuming these, either 'content centred' or 'pupil-centred'. It was found that the more experienced teachers placed equal emphasis on these two dimensions but that student teachers were more orientated towards pupil-centred approaches. The responses to the policy capturing task were not aggregated because the assumption of equality of regression coefficients across teachers was violated, so a separate regression equation was computed for each participant. Almost all (64 of 67) participants produced reading groups which they described as high, middle and low. Almost all used reading achievement scores (64 of 67) and self-correction of errors (57 of 67) in forming these reading groups. But the other variables were also used by some in making these decisions; 29 used information about class participation, 23 considered behaviour in class and 10 used the information about students' social competence. The teachers whose regression equations appeared to

show they had not used the information on reading achievement later explained their strategy in grouping students was to create groups that were balanced for ability. This does highlight a problem with this method which cannot distinguish between ignoring cues and using them to create heterogeneous groups. There were some differences between the teachers and student teachers but these did not generally account for a large proportion of the variance. The cue most affected (32% of the variance) was class participation as 63% of teachers but only 30% of student teachers used class participation in making their decisions about grouping pupils. These findings are very interesting, particularly the differences between experienced teachers and student teachers which many studies have failed to find.

2.3.4.4. Concept Mapping

There has been an explosion of work published using concept mapping techniques in the 1990s, mostly within the domain of science education, and possibly as a result of Markham, Mintzes & Jones's (1994) article about the validity of concept mapping appearing in the *Journal of Research in Science Teaching*. However, there have also been a small number of studies of teacher thinking about reading using concept mapping in recent years.

One of the earliest studies to employ concept mapping was reported by Beyerbach (1988), who allowed undergraduate teacher education students to produce their own content and structure of concept maps. This study examined concept maps completed by the students before and after they had taken courses and found that the concept maps changed to become more similar to that of the instructor for the course. Strahan (1989) gave experienced and novice teacher completing an inservice course a list of provided terms and asked them to produce concept maps. The experienced teachers produced more organised and complex maps and the content was judged to be more student-centred than that of the novice teachers.

More recently Winitzky & Kauchak (1995) investigated elementary student teachers' conceptions of classroom management and how they changed over 7 months. The 31 student teachers generated their own concepts and structure to produce a map on at 4 points in time. They were analysed in terms of the number of concepts, depth (number of levels), number of chunks and width (number of chunks at widest point). This revealed that

the concept maps became less complex at each successive time point on virtually every structural measure in virtually every case. The maps also exhibited great turbulence in a very high turnover in concepts. The authors also noted a thematic shift in content from a control orientation to classroom organisation to student responsibility and self-control. It is intriguing that the participants found it almost impossible to remember their previous maps of just 1 month earlier. The decreased complexity is in contrast to previous studies such as Strahan (1989) or Winitzky et al (1994). The authors argue that Anderson's (1983, 1987) Adaptive Character of Thought theory of skill learning would predict that later maps become simpler as students compile their knowledge. Winitzky & Kauchak (1995) hypothesise that their methodology accessed procedural knowledge while previous studies accessed declarative knowledge.

Jones & Vesilind (1996) aimed to examine how student teachers' concepts about effective teaching changed over 9 months in their final year of training using concept maps, a card sorting task and interviews. The 23 middle-grade teaching students generated their own content and structure to produce a concept map at 4 points in time. The structure of these concept maps was analysed using a slightly different procedure described by Novak & Gowin (1984) and Markham, Mintzes & Jones (1994) where subscales are generated for examples, relationships, hierarchies and crosslinks. The results showed that over time the student teachers' concepts maps used less examples but more crosslinks while the number of relationships and hierarchies was stable. The authors suggest that this indicates increasing integration in the concept maps. The students attributed change most often to their teaching practice and then to their university classes. The authors conclude that student teachers' knowledge becomes more coherent and integrated during their participation in teaching practice, although the results for the concept maps are in conflict with Winitzky & Kauchak's (1995) findings and interpretation.

Mergendoller & Sacks (1994) carried out a particularly relevant study investigating teachers' theoretical orientation to reading using concept maps. The study used DeFord's (1985) TORP to assess theoretical orientation and compared the concept maps of 60 teachers from 6 schools in the San Francisco Bay Area with different theoretical orientations. The teachers produced concept maps at 3 points in the academic year, which provides interesting reliability data over a relatively long period of 7 months, although only 14 teachers actually completed concept maps on every occasion. The teachers produced

their own content and structure from the starting node of 'children learning to read'. The authors report that the structural measures of nodes, links, chunks and total depth were stable over this period but content was not. There was no difference in structural measures between those with different theoretical orientations to reading. Analysis of content revealed there was some limited evidence that teachers with a whole language orientation to reading produced a higher proportion of nodes concerned with emotional support and individual differences. There were no significant correlations between years of teaching experience and any structural measure. Analysis of content revealed there was a correlation between years of teaching experience and a lower proportion of nodes concerned with emotional support and individual differences. Mergendoller & Sacks (1994) concluded that concept maps can be used to discriminate between teachers who hold different theoretical orientations to reading if content as well as structure is examined. However, it should be noted that the operational definition of theoretical orientation depended entirely on the DeFord (1985) TORP measures.

The most recent work published using concept mapping is Gupta & Saravanan's (1995) study of 96 students on a one year postgraduate course to certify them as secondary school teachers in Singapore specialising in English Language. They used a reading assignment with questionnaires and concept maps at the beginning and end of a module on reading to examine changes in students' beliefs. The students were asked to draw 2 concept maps based on the instructions 'How was reading taught to you when you were in school?' and 'How was vocabulary taught to you when you were in school?' at the beginning and end of the module. Comparing these maps the researchers claimed that there was substantial improvement (by which they appear to mean moving towards the authors' conceptions of these topics), but as they did not in any sense measure the concept maps the improvement could not be quantified. Instead Gupta & Saravanan classified the end of module maps into 3 types, described by the authors as follows:

- 1) Type I concept maps had two levels and used keywords that showed the students were essentially thinking in terms of lesson plans. The material they have covered during the module is organised using the lesson plan as a framework.
- 2) Type II concept maps had only one level. They consisted of a collection of ad hoc terms that cover processes, objectives and techniques that are not organised in any coherent way but fragmented.

3) Type III concept maps had two levels with 'reading' as level 0. At level 1 a variety of terms appear revealing internalisation of the information the students have received on the module and then Level 2 contained techniques related to these terms.

The authors concluded from their triangulation of sources that none of the students had succeeded in achieving a coherent representation of the field but that their instruction had made some impact, particularly in areas where the students had experienced very inadequate teaching themselves as students. These findings are interesting but this paper does not contribute greatly to concept map methodology.

Figure 2-8 Type I Concept Map, from Gupta & Saravanan (1995).

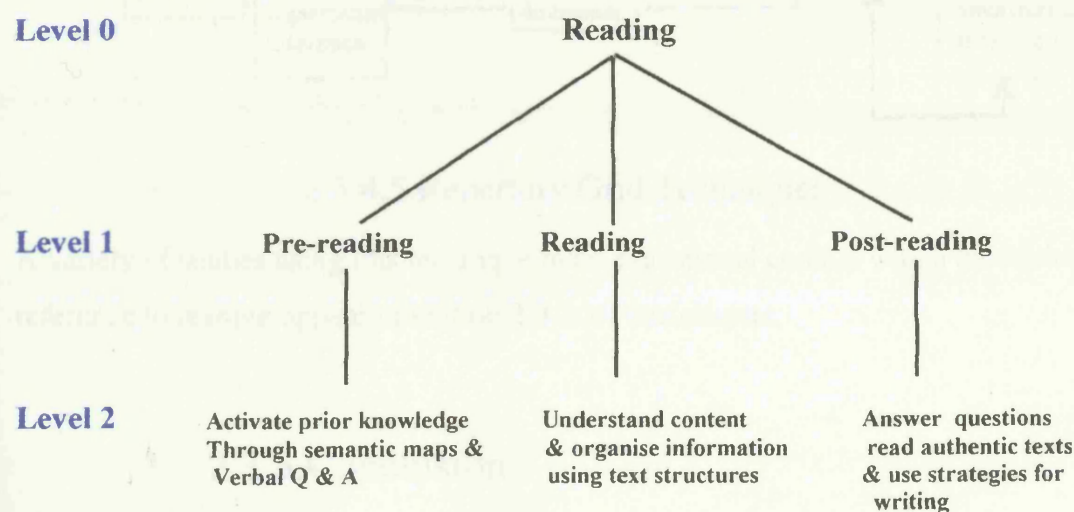


Figure 2-9 Type II Concept Map, from Gupta & Saravanan (1995).

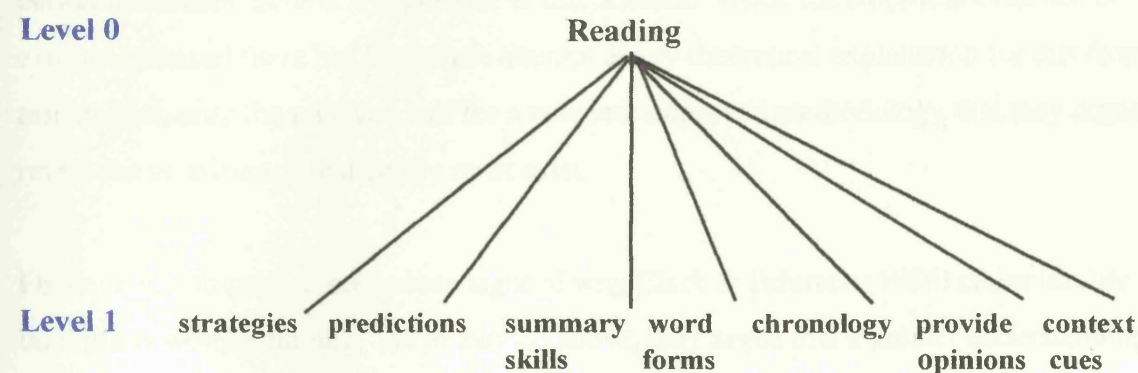
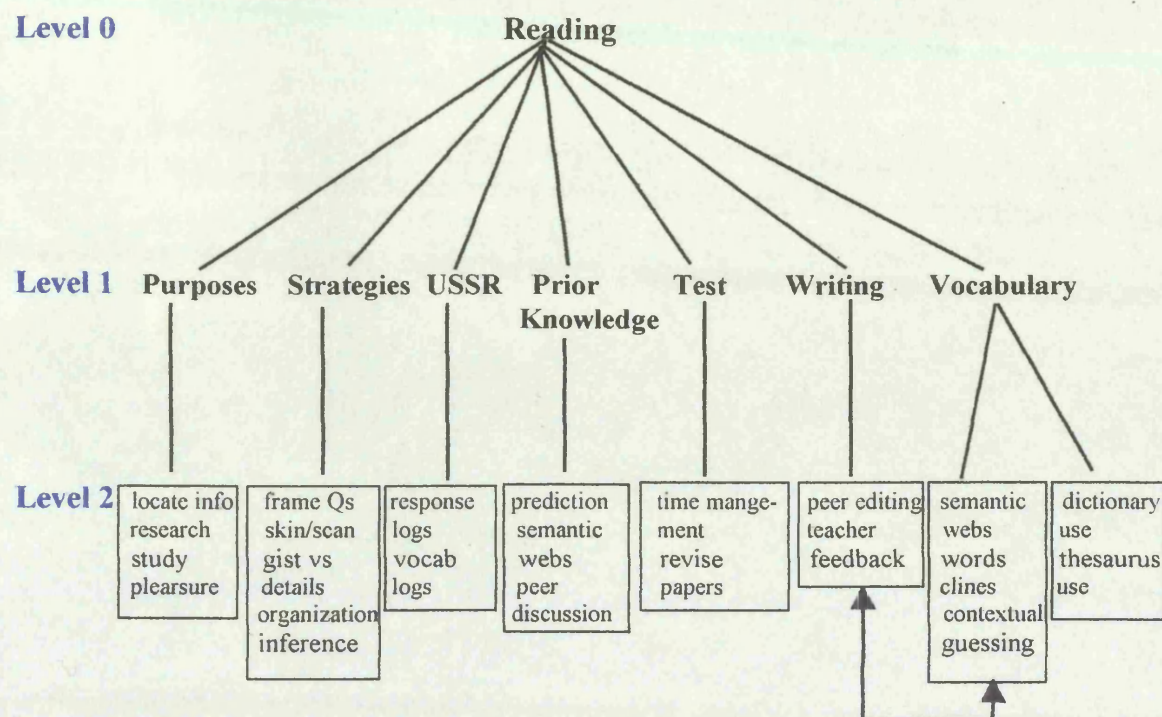


Figure 2-10 Type III Concept Map, from Gupta & Saravanan (1995).



2.3.4.5. Repertory Grid Techniques

A variety of studies using this technique in an educational context with a particular reference to reading appear in section 2.4.3. of this chapter.

2.3.5. Conclusion

Johnson (1992) wrote that “The most productive contributions to our understanding of the relationship between teachers’ beliefs and practices have taken place in the field of reading.” (p.84). Having reviewed the wealth of research evidence above I would question how close to any understanding of this relationship we really are. As Fang’s (1996) excellent review demonstrates, controversy continues to rage on the finding of consistency or inconsistency between teachers’ beliefs and practice in this domain. While the empirical evidence is extremely mixed there has been little attempt at any theoretical explanation for this from researchers, only the repeated call for a new and improved methodology that they argue will reveal the consistency that surely must exist.

I believe it is important not to lose sight of why Clark & Petersen (1986) claim teacher thinking is worth studying. As discussed above, they argue that a greater understanding of teachers’ cognitive processes will enhance our understanding of why the more easily

observable aspects of teaching appear as they do. This claim is predicated on the assumption that there is a simple, strong relationship between teachers' beliefs and their behaviour in the classroom. If this assumption is false then the value of studying teachers' beliefs and theories might be questioned. I suggest that there is no reason to believe that there is a stronger relationship between beliefs and behaviour in teaching than in any other human activity.

Since Ross (1977) first named the fundamental attribution error it has been known that the attributions of actors and observers about behaviour usually diverge in that the actor favours external causes and the observer favours causes internal to the actor such as attitudes and beliefs. This divergence is due to the observer's error in overestimating dispositional causes and underestimating situational causes and this is known as the fundamental attribution error. I suggest that there is no reason to believe researchers in schools are any less susceptible to this error than other human beings. Researchers are frequently observers of the behaviour of an actor; the teacher. I believe this has led to an underestimate of the influence of situational variables, such as the materials available, numbers, ability and behaviour of pupils, the constraints of school policy, the National Curriculum and many other factors by researchers observing teachers. Research which finds inconsistency between teachers' beliefs and practice does point to external and situational factors as discussed above.

In conclusion, research on teacher thinking is a relatively new and unexplored area, and its value as a contribution to changing classroom practice, as opposed to pure research, remains unproven. Much of the research to date on teachers' beliefs about reading has addressed the difficult question of the relationship between such beliefs and instructional practice. As yet the evidence for teachers' consistency or inconsistency between beliefs and practice has been mixed. One reason often cited by supporters of the consistency hypothesis is that the measurements of teachers' beliefs are insufficiently accurate, sensitive or idiographic to assess their complexities. So far the overwhelming weight of research into teachers' beliefs has been carried out using questionnaires, lending weight to this claim, but there are other methods. To resolve the question of the relationship between beliefs and behaviour requires an increased emphasis on methodology in exploring teacher thinking and greater attention to issues of reliability and validity in future research.

Research to date has almost exclusively used questionnaires, an approach which can be criticised for its lack of personal relevance to teachers, as discussed above. Of all the methodologies considered above Personal Construct Psychology appears unique in allowing a flexible, sensitive, idiographic approach within a fully developed theoretical framework. I believe its potential in exploring teacher thinking has not been fully realised. Therefore, I suggest that it is worth examining Personal Construct Psychology and the methodology associated with it in greater depth.

2.4. Personal Construct Psychology

2.4.1. Introduction

George A. Kelly (1905-1966) proposed Personal Construct Psychology as a complete theory of human behaviour in Kelly (1955). Personal Construct Psychology is formally stated as a fundamental postulate and eleven corollaries. The fundamental postulate is that a person's processes are psychologically channelized by the ways in which they anticipate events. Kelly believed that all human beings behave like scientists who observe the world, formulate and test hypotheses about it. Kelly asserted that we cannot contact an interpretation-free reality directly, we can only develop propositions and then proceed to discover how useful they are. Kelly believed that the psychologist's role should be to try and discover the dimensions individuals use to interpret the world. These dimensions were called personal constructs. These constructs will change continuously as the individual seeks to find meaning in new experience. Constructs can be conceptualised as bipolar dimensions which are organised hierarchically in a system unique to that individual, thus Personal Construct Psychology is idiographic. The social scientist is not like the natural scientist, in that the investigator is also the subject of investigation, and can influence the phenomenon they seek to observe. Thus theories of human behaviour must be reflexive, as Personal Construct Psychology is explicitly reflexive. Unlike many psychological theories it does not account for all human behaviour except the formation of the theory. The philosophy of Personal Construct Psychology, constructive alternativism, is the assumption that our experience is subject to as great a variety of constructions as our mind allows us to conceive. This is contrasted with the prevalent philosophy of the era, which Kelly called

accumulative fragmentalism, which assumes that truth or knowledge is a growing collection of substantiated facts.

2.4.2. Repertory Grid Techniques

Kelly developed an instrument for eliciting an individual's personal constructs, the Role Construct Repertory Test. Kelly (1955) described many forms in which the Role Construct Repertory Test had been used, but listed these only as suggestions, as the procedure is flexible and can be varied greatly. Essentially the grid form of the repertory test consists of a list of roles believed to be of psychological significance to the individual (such as mother, brother, ideal self) which form the elements of the grid. The grid consists of combinations of three of these elements, called triads. Constructs are elicited by the individual indicating the ways in which the elements of a triad are similar or different. Each similarity forms the emergent pole of a construct, while the difference forms the implicit pole of the same construct. All the elements are rated as characterised by the construct or not. Sorting can continue until the individual has described their constructs exhaustively. The output is the completed grid which can be analysed in many ways.

Kelly actually developed a method of non-parametric analysis for extracting the major dimensions the individual uses to order their world. Principal component analysis, factor analysis and cluster analysis have all been used to analyse grids. Such analyses are based on the assumption that psychological space can be represented by mathematical space. Kelly (1955) describes the repertory grid as "a premathematical representation of an individual's psychological space, and it is designed to set the stage for a mathematical analysis of that space. As we see it, it is essentially multidimensional in character" (p.304). Reflecting on the work that has been carried out since Kelly wrote these words Fransella & Bannister (1977) warn that the usual rules of statistics should not be forgotten in grid analysis and that correlations occur by chance unless they reach significance, and even when they do there is little psychological significance in a relationship which only accounts for a small percentage of the variance. Many different forms of the repertory grid have been developed since Kelly first suggested them, and these are most clearly described by Fransella & Bannister (1977).

Mischel (1980) credits Kelly as the founder of cognitive psychology because Kelly had created a truly cognitive theory of personality based on how people construe long before

Figure 2-11 Role Construct Repertory Grid, from Kelly (1955).

CONSTRUCTS																						EMERGENT POLE	IMPLICIT POLE
Self	Mother	Father	Brother	Sister	Spouse	Ex-flame	Pol	Ex-pol	Rejecting Person	Pitied Person	Threatening Person	Attractive Person	Accepted Teacher	Rejected Teacher	Boss	Successful Person	Happy Person	Ethical Person	Sort NO.				
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1	Don't believe in God	Very religious		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	2	Same sort of education	Complete different education		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	3	Not athletic	Athletic		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	4	Both girls	A boy		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	5	Parents	Ideas different		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	6	Understand me better	Don't understand at all		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	7	Teach the right thing	Teach the wrong thing		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	8	Achieved a lot	Hasn't achieved a lot		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9	Higher education	No education		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Don't like other people	Like other people		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	11	More religious	Not religious		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	12	Believe in higher education	Not believing in too much education		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	13	More sociable	Not sociable		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	14	Both girls	Not girls		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	15	Both girls	Not girls		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	16	Both have high morals	Low morals		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	17	Think alike	Think differently		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18	Same age	Different ages		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	19	Believe the same about me	Believe differently about me		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	20	Both friends	Not friends		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	21	More understanding	Less understanding		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	22	Both appreciate music	Don't understand music		

cognitive psychology existed.

Kelly's first principle was that if you want to know why a person has behaved in some way, then you should ask them as they may just tell you. Although subject to criticisms of naiveté this has remained an attractive idea to social scientists. Kelly's repertory grid techniques provide an ingenious way to reveal a person's perceptions, beliefs and theories in a way that it is possible to analyse mathematically. For these reasons Personal Construct Psychology and repertory grid techniques have become widely known outside the field of personality theory.

Many of the different forms of the Role Construct Repertory Grid which have been developed arose from an attempt to deal with the problem of 'lopsidedness'. With the dichotomous grid form of the repertory test sometimes an individual would see very few elements, or almost every element, as characterised by a particular construct. For example, with the construct 'kind-cruel' an individual might characterise most of the role title list as kind and perhaps only a few as cruel. This could be an artefact of the role title list, which consists mostly of intimates of the individual, rather than the insignificance of the construct. This created the problem of lopsidedness in analysis. Several ways to deal with this have been tried. Kelly suggested simply eliminating from the analysis any construct which applied to practically none, or almost all of the elements. However, this means an important construct must be ignored.

Bannister (1959) suggested that the individual could be asked to allocate the elements equally to the emergent and implicit poles of each construct. The advantage is that no construct need be eliminated from the analysis, but it places great constraints on the individual's application of the construct which may be inappropriate.

Rank order grids were suggested by Phillida Salmon and first described by Bannister (1963). They deal with the problem of lopsidedness by asking the individual to rank the elements from those most representative of the emergent pole to those most representative of the implicit pole. The use of the role title list has been abandoned by some researchers using this variation. It is then possible to use a wide range of people, objects or even abstract ideas as elements. But Fransella & Bannister (1977) caution that the purpose of the role title list is to ensure that elements are representative of the area of construing under

consideration and this remains vital. They give an example of using a ranking grid to investigate people's attitude to bread. In such a case it would be reasonable if the elements were different types of bread. Such a representative group of elements should elicit constructs concerning the properties of bread.

In the rating grid, instead of ranking elements in terms of constructs each element is rated on a scale defined by the poles of the construct. Rating is on a Likert scale defined by the researcher. As with the ranking grid the elements can consist of any representative sample of the population under consideration. For example, Parkinson & Lea (1991) used rating grids to investigate emotions by using eight emotions as elements. The advantage of the rating grid is that it allows more flexibility than the ranking grid, but it may produce lopsided constructs like the original grid form, although the individual can be quite exact.

Hinkle (1965) developed the implications grid and the related resistance-to-change grid. The implications grid has no elements in the traditional sense as all contrasts are made in relation to the self. Thus its application outside the therapeutic context is limited.

Finally, despite the widespread application of repertory grid techniques in a variety of fields it is important to consider the warnings of Fransella & Bannister (1977). They identify the greatest controversy as the relationship of Personal Construct Psychology to grid techniques. Grid techniques were originally developed within Personal Construct Psychology but have subsequently been widely used independently of the theory. They see this as the source of many practical difficulties where researchers use grid techniques as a glorified semantic differential (Osgood, Suci & Tannenbaum, 1957) and fail to provide a large enough variety of elements and so fail to representatively sample the individual's constructs. A fundamental conflict lies between Personal Construct Psychology, which explicitly states individuals will have different constructs and will apply them differently, and researchers who seek generalisable results. Thus Hargreaves (1977) argues that if researchers relabel participants' constructs or make judgements about the similarity of different individuals' constructs they violate the assumptions of Personal Construct Psychology.

2.4.3. Personal Construct Psychology in Education

2.4.3.1. Introduction

During the 1970s Personal Construct Psychology and repertory grid techniques became fashionable in education. This work has been admirably reviewed by Pope & Keen (1981) who examine the relevance of Personal Construct Psychology to many educational topics and applications of repertory grid techniques in educational research. They provide a practical guide for those in educational research wishing to use the technique. Novak (1990) reviews educational applications of Personal Construct Psychology and Bannister & Fransella (1986) also mention topics of interest to education. Thus what follows serves only to illustrate the range of studies that have been reported and the methods used.

2.4.3.2. History of Personal Construct Psychology Research in Education

David E. Hunt was an educational psychologist who had adapted the repertory grid techniques for use by teachers. Hunt appears to have been a graduate student of Kelly's and Kelly (1955) cites his work on the reliability of repertory grid techniques, Hunt (1951). Hunt (1975, 1976) was attempting to see how teachers thought about children.

Nash (1973) carried out an early study of teachers' perceptions of children using repertory grid techniques and combined this with participant observation to examine how teacher perceptions affected children. Nash (1976) used a grid where the elements were children in the class to elicit teachers' constructs which were used to rate the elements.

Taylor (1976) used such techniques to study teachers' perceptions of their pupils. Forty eight primary teachers completed repertory grids with their pupils forming the elements. The constructs elicited in this way were classified into seven broad categories by the author. An attempt was made to relate characteristics of the teacher to measures derived from the grid and the Minnesota Teacher Attitude Index (MTAI Cook, Leeds & Callis, 1951). In actual fact the only teacher characteristic considered was gender, and male teachers produced significantly more constructs than female teachers (24 males produced an average of 10.25 constructs, while 24 females produced an average of 8.33, $t=13.91$, $p<0.001$).

This was interpreted as an indication of male teachers' greater cognitive complexity. No significant differences between male and female teachers were found in their MTAI scores. Taylor concluded that the relationship between the gender of teachers and their perceptions and beliefs was a neglected area and could be more important than previously believed.

A more recent study using repertory grid techniques was reported by Munby (1982). Munby reviewed recent research on teacher thinking and described the two models that have produced it. These are the decision making model of Shavelson (1976, 1978, 1981) and the cognitive information processing model based on the work of Newell & Simon (1972). Both models agree that the importance of teachers' beliefs and implicit theories cannot be over-emphasised. Munby concluded that conflicting results on the relationship between teachers' beliefs and classroom practice are a result of the inadequacy of the methods used to assess what teachers believe. Munby criticised traditional attitude scale measurement, such as the MTAI, and put forward his own adaptation of Kelly's repertory grid techniques. Munby described a case study to exemplify his procedure. This consisted of two interviews, of about 90 minutes each, with an elementary teacher which were recorded on audio tape. In the first interview the teacher was asked to provide brief statements describing what might be observed in her classroom over the next week. These formed 20 elements that the teacher was then asked to group. Her statements while grouping the elements were written down by Munby and formed 16 constructs. Finally the teacher completed a rating grid with these 20 elements and 16 constructs by rating the extent to which each construct was associated with each element on a scale of one to three. A principal components analysis with varimax rotation was performed on the completed grid using the package PRIME, (Veldman 1978). The second interview used the results of this analysis as a basis for exploring the meaning of the factor groupings it produced, and eventually for labelling them. Munby (1984) reported using the same procedure with a science teacher as a case study.

2.4.3.3. Review of Personal Construct Psychology Research in Education

The review of research on teacher thinking which appears in section 2.3.4. of this chapter described many studies of teacher thinking about reading using a great variety of research methods. Despite exhaustive searches of the literature only one report of using repertory

3) Type III concept maps had two levels with 'reading' as level 0. At level 1 a variety of terms appear revealing internalisation of the information the students have received on the module and then Level 2 contained techniques related to these terms.

The authors concluded from their triangulation of sources that none of the students had succeeded in achieving a coherent representation of the field but that their instruction had made some impact, particularly in areas where the students had experienced very inadequate teaching themselves as students. These findings are interesting but this paper does not contribute greatly to concept map methodology.

Figure 2-8 Type I Concept Map, from Gupta & Saravanan (1995).

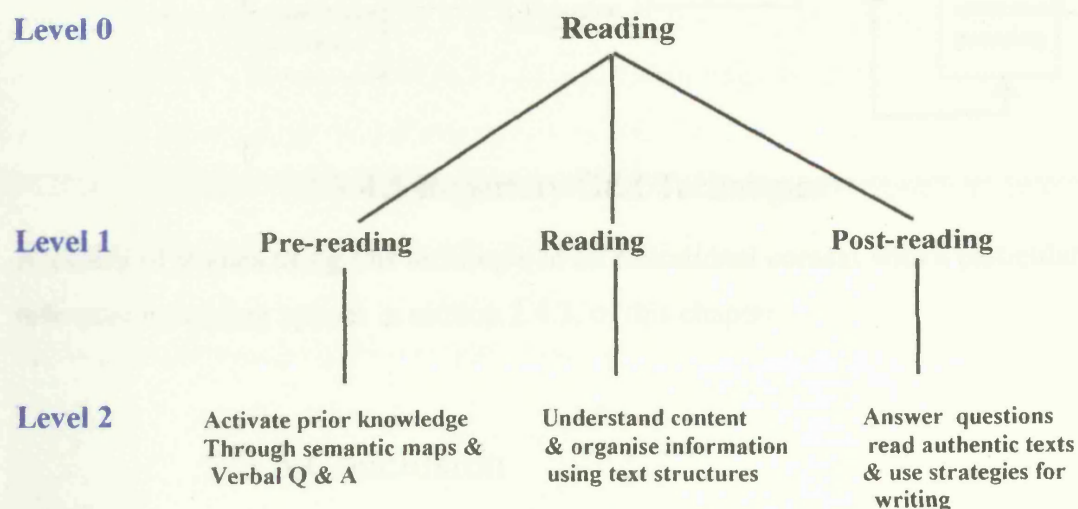


Figure 2-9 Type II Concept Map, from Gupta & Saravanan (1995).

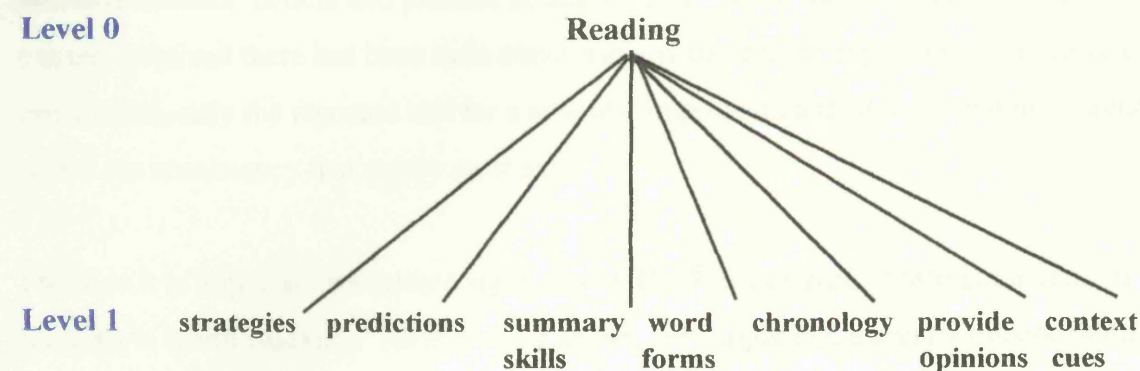
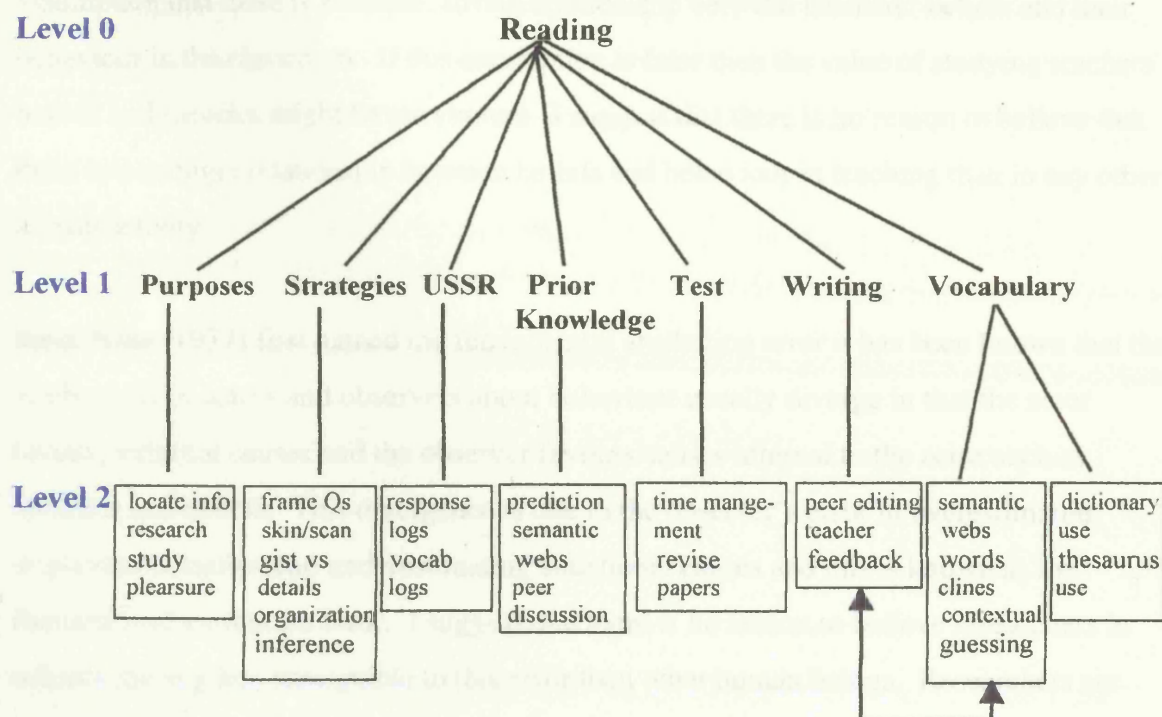


Figure 2-10 Type III Concept Map, from Gupta & Saravanan (1995).



2.3.4.5. Repertory Grid Techniques

A variety of studies using this technique in an educational context with a particular reference to reading appear in section 2.4.3. of this chapter.

2.3.5. Conclusion

Johnson (1992) wrote that “The most productive contributions to our understanding of the relationship between teachers’ beliefs and practices have taken place in the field of reading.” (p.84). Having reviewed the wealth of research evidence above I would question how close to any understanding of this relationship we really are. As Fang’s (1996) excellent review demonstrates, controversy continues to rage on the finding of consistency or inconsistency between teachers’ beliefs and practice in this domain. While the empirical evidence is extremely mixed there has been little attempt at any theoretical explanation for this from researchers, only the repeated call for a new and improved methodology that they argue will reveal the consistency that surely must exist.

I believe it is important not to lose sight of why Clark & Petersen (1986) claim teacher thinking is worth studying. As discussed above, they argue that a greater understanding of teachers’ cognitive processes will enhance our understanding of why the more easily

observable aspects of teaching appear as they do. This claim is predicated on the assumption that there is a simple, strong relationship between teachers' beliefs and their behaviour in the classroom. If this assumption is false then the value of studying teachers' beliefs and theories might be questioned. I suggest that there is no reason to believe that there is a stronger relationship between beliefs and behaviour in teaching than in any other human activity.

Since Ross (1977) first named the fundamental attribution error it has been known that the attributions of actors and observers about behaviour usually diverge in that the actor favours external causes and the observer favours causes internal to the actor such as attitudes and beliefs. This divergence is due to the observer's error in overestimating dispositional causes and underestimating situational causes and this is known as the fundamental attribution error. I suggest that there is no reason to believe researchers in schools are any less susceptible to this error than other human beings. Researchers are frequently observers of the behaviour of an actor; the teacher. I believe this has led to an underestimate of the influence of situational variables, such as the materials available, numbers, ability and behaviour of pupils, the constraints of school policy, the National Curriculum and many other factors by researchers observing teachers. Research which finds inconsistency between teachers' beliefs and practice does point to external and situational factors as discussed above.

In conclusion, research on teacher thinking is a relatively new and unexplored area, and its value as a contribution to changing classroom practice, as opposed to pure research, remains unproven. Much of the research to date on teachers' beliefs about reading has addressed the difficult question of the relationship between such beliefs and instructional practice. As yet the evidence for teachers' consistency or inconsistency between beliefs and practice has been mixed. One reason often cited by supporters of the consistency hypothesis is that the measurements of teachers' beliefs are insufficiently accurate, sensitive or idiographic to assess their complexities. So far the overwhelming weight of research into teachers' beliefs has been carried out using questionnaires, lending weight to this claim, but there are other methods. To resolve the question of the relationship between beliefs and behaviour requires an increased emphasis on methodology in exploring teacher thinking and greater attention to issues of reliability and validity in future research.

Research to date has almost exclusively used questionnaires, an approach which can be criticised for its lack of personal relevance to teachers, as discussed above. Of all the methodologies considered above Personal Construct Psychology appears unique in allowing a flexible, sensitive, idiographic approach within a fully developed theoretical framework. I believe its potential in exploring teacher thinking has not been fully realised. Therefore, I suggest that it is worth examining Personal Construct Psychology and the methodology associated with it in greater depth.

2.4. Personal Construct Psychology

2.4.1. Introduction

George A. Kelly (1905-1966) proposed Personal Construct Psychology as a complete theory of human behaviour in Kelly (1955). Personal Construct Psychology is formally stated as a fundamental postulate and eleven corollaries. The fundamental postulate is that a person's processes are psychologically channelized by the ways in which they anticipate events. Kelly believed that all human beings behave like scientists who observe the world, formulate and test hypotheses about it. Kelly asserted that we cannot contact an interpretation-free reality directly, we can only develop propositions and then proceed to discover how useful they are. Kelly believed that the psychologist's role should be to try and discover the dimensions individuals use to interpret the world. These dimensions were called personal constructs. These constructs will change continuously as the individual seeks to find meaning in new experience. Constructs can be conceptualised as bipolar dimensions which are organised hierarchically in a system unique to that individual, thus Personal Construct Psychology is idiographic. The social scientist is not like the natural scientist, in that the investigator is also the subject of investigation, and can influence the phenomenon they seek to observe. Thus theories of human behaviour must be reflexive, as Personal Construct Psychology is explicitly reflexive. Unlike many psychological theories it does not account for all human behaviour except the formation of the theory. The philosophy of Personal Construct Psychology, constructive alternativism, is the assumption that our experience is subject to as great a variety of constructions as our mind allows us to conceive. This is contrasted with the prevalent philosophy of the era, which Kelly called

accumulative fragmentalism, which assumes that truth or knowledge is a growing collection of substantiated facts.

2.4.2. Repertory Grid Techniques

Kelly developed an instrument for eliciting an individual's personal constructs, the Role Construct Repertory Test. Kelly (1955) described many forms in which the Role Construct Repertory Test had been used, but listed these only as suggestions, as the procedure is flexible and can be varied greatly. Essentially the grid form of the repertory test consists of a list of roles believed to be of psychological significance to the individual (such as mother, brother, ideal self) which form the elements of the grid. The grid consists of combinations of three of these elements, called triads. Constructs are elicited by the individual indicating the ways in which the elements of a triad are similar or different. Each similarity forms the emergent pole of a construct, while the difference forms the implicit pole of the same construct. All the elements are rated as characterised by the construct or not. Sorting can continue until the individual has described their constructs exhaustively. The output is the completed grid which can be analysed in many ways.

Kelly actually developed a method of non-parametric analysis for extracting the major dimensions the individual uses to order their world. Principal component analysis, factor analysis and cluster analysis have all been used to analyse grids. Such analyses are based on the assumption that psychological space can be represented by mathematical space. Kelly (1955) describes the repertory grid as "a premathematical representation of an individual's psychological space, and it is designed to set the stage for a mathematical analysis of that space. As we see it, it is essentially multidimensional in character" (p.304). Reflecting on the work that has been carried out since Kelly wrote these words Fransella & Bannister (1977) warn that the usual rules of statistics should not be forgotten in grid analysis and that correlations occur by chance unless they reach significance, and even when they do there is little psychological significance in a relationship which only accounts for a small percentage of the variance. Many different forms of the repertory grid have been developed since Kelly first suggested them, and these are most clearly described by Fransella & Bannister (1977).

Mischel (1980) credits Kelly as the founder of cognitive psychology because Kelly had created a truly cognitive theory of personality based on how people construe long before

Figure 2-11 Role Construct Repertory Grid, from Kelly (1955).

CONSTRUCTS																			
										EMERGENT POLE		IMPLICIT POLE							
Self	Mother	Father	Brother	Sister	Spouse	Ex-flame	Pal	Ex-pal	Rejecting Person	Pitied Person	Threatening Person	Attractive Person	Accepted Teacher	Rejected Teacher	Boss	Successful Person	Happy Person	Ethical Person	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	SORT NO.
						✓			✓	✓	✓					⊗	⊗	○	1
		✓	✓	✓			✓					⊗	⊗	○		✓			2
✓	✓	✓	✓	✓	✓			✓	⊗	○	✓	⊗	✓			✓			3
	✓				⊗	⊗						✓							4
✓	⊗	⊗	○	✓	✓		✓					✓	✓	✓	✓	✓	✓		5
			✓	○			✓						⊗	✓			⊗		6
	⊗	✓	✓	✓				○				⊗	⊗	✓	✓		✓		7
	✓	○	✓									✓	✓		⊗	✓	✓		8
		⊗	⊗	✓			✓	○	○			✓	✓	⊗	✓				9
				⊗		✓		⊗					○	○					10
✓	✓	✓		⊗	✓		✓		✓	○	✓	✓	✓	✓	✓	✓	✓		11
✓	✓	✓	⊗				✓	○	✓	✓	⊗	✓	✓	✓	✓	✓	✓		12
✓	✓	✓	✓		○				✓	✓	⊗	✓	✓	✓	✓		⊗		13
	○				⊗	⊗						✓							14
	✓	○			⊗	⊗					✓	✓							15
✓	✓	✓	✓	✓		⊗						⊗	✓	✓	✓	✓	✓		16
⊗			⊗	○	✓		✓		✓		✓	✓	✓	✓					17
				✓									✓	✓	⊗	✓	○		18
	⊗	⊗		✓					✓	✓	○	✓	✓	✓	✓	✓	✓		19
				✓		✓	✓	⊗	✓										20
							○						⊗	✓	✓	✓	✓		21
⊗		✓					✓	⊗				✓		✓					22

cognitive psychology existed.

Kelly's first principle was that if you want to know why a person has behaved in some way, then you should ask them as they may just tell you. Although subject to criticisms of naiveté this has remained an attractive idea to social scientists. Kelly's repertory grid techniques provide an ingenious way to reveal a person's perceptions, beliefs and theories in a way that it is possible to analyse mathematically. For these reasons Personal Construct Psychology and repertory grid techniques have become widely known outside the field of personality theory.

Many of the different forms of the Role Construct Repertory Grid which have been developed arose from an attempt to deal with the problem of 'lopsidedness'. With the dichotomous grid form of the repertory test sometimes an individual would see very few elements, or almost every element, as characterised by a particular construct. For example, with the construct 'kind-cruel' an individual might characterise most of the role title list as kind and perhaps only a few as cruel. This could be an artefact of the role title list, which consists mostly of intimates of the individual, rather than the insignificance of the construct. This created the problem of lopsidedness in analysis. Several ways to deal with this have been tried. Kelly suggested simply eliminating from the analysis any construct which applied to practically none, or almost all of the elements. However, this means an important construct must be ignored.

Bannister (1959) suggested that the individual could be asked to allocate the elements equally to the emergent and implicit poles of each construct. The advantage is that no construct need be eliminated from the analysis, but it places great constraints on the individual's application of the construct which may be inappropriate.

Rank order grids were suggested by Phillida Salmon and first described by Bannister (1963). They deal with the problem of lopsidedness by asking the individual to rank the elements from those most representative of the emergent pole to those most representative of the implicit pole. The use of the role title list has been abandoned by some researchers using this variation. It is then possible to use a wide range of people, objects or even abstract ideas as elements. But Fransella & Bannister (1977) caution that the purpose of the role title list is to ensure that elements are representative of the area of construing under

consideration and this remains vital. They give an example of using a ranking grid to investigate people's attitude to bread. In such a case it would be reasonable if the elements were different types of bread. Such a representative group of elements should elicit constructs concerning the properties of bread.

In the rating grid, instead of ranking elements in terms of constructs each element is rated on a scale defined by the poles of the construct. Rating is on a Likert scale defined by the researcher. As with the ranking grid the elements can consist of any representative sample of the population under consideration. For example, Parkinson & Lea (1991) used rating grids to investigate emotions by using eight emotions as elements. The advantage of the rating grid is that it allows more flexibility than the ranking grid, but it may produce lopsided constructs like the original grid form, although the individual can be quite exact.

Hinkle (1965) developed the implications grid and the related resistance-to-change grid. The implications grid has no elements in the traditional sense as all contrasts are made in relation to the self. Thus its application outside the therapeutic context is limited.

Finally, despite the widespread application of repertory grid techniques in a variety of fields it is important to consider the warnings of Fransella & Bannister (1977). They identify the greatest controversy as the relationship of Personal Construct Psychology to grid techniques. Grid techniques were originally developed within Personal Construct Psychology but have subsequently been widely used independently of the theory. They see this as the source of many practical difficulties where researchers use grid techniques as a glorified semantic differential (Osgood, Suci & Tannenbaum, 1957) and fail to provide a large enough variety of elements and so fail to representatively sample the individual's constructs. A fundamental conflict lies between Personal Construct Psychology, which explicitly states individuals will have different constructs and will apply them differently, and researchers who seek generalisable results. Thus Hargreaves (1977) argues that if researchers relabel participants' constructs or make judgements about the similarity of different individuals' constructs they violate the assumptions of Personal Construct Psychology.

2.4.3. Personal Construct Psychology in Education

2.4.3.1. Introduction

During the 1970s Personal Construct Psychology and repertory grid techniques became fashionable in education. This work has been admirably reviewed by Pope & Keen (1981) who examine the relevance of Personal Construct Psychology to many educational topics and applications of repertory grid techniques in educational research. They provide a practical guide for those in educational research wishing to use the technique. Novak (1990) reviews educational applications of Personal Construct Psychology and Bannister & Fransella (1986) also mention topics of interest to education. Thus what follows serves only to illustrate the range of studies that have been reported and the methods used.

2.4.3.2. History of Personal Construct Psychology Research in Education

David E. Hunt was an educational psychologist who had adapted the repertory grid techniques for use by teachers. Hunt appears to have been a graduate student of Kelly's and Kelly (1955) cites his work on the reliability of repertory grid techniques, Hunt (1951). Hunt (1975, 1976) was attempting to see how teachers thought about children.

Nash (1973) carried out an early study of teachers' perceptions of children using repertory grid techniques and combined this with participant observation to examine how teacher perceptions affected children. Nash (1976) used a grid where the elements were children in the class to elicit teachers' constructs which were used to rate the elements.

Taylor (1976) used such techniques to study teachers' perceptions of their pupils. Forty eight primary teachers completed repertory grids with their pupils forming the elements. The constructs elicited in this way were classified into seven broad categories by the author. An attempt was made to relate characteristics of the teacher to measures derived from the grid and the Minnesota Teacher Attitude Index (MTAI Cook, Leeds & Callis, 1951). In actual fact the only teacher characteristic considered was gender, and male teachers produced significantly more constructs than female teachers (24 males produced an average of 10.25 constructs, while 24 females produced an average of 8.33, $t=13.91$, $p<0.001$).

This was interpreted as an indication of male teachers' greater cognitive complexity. No significant differences between male and female teachers were found in their MTAI scores. Taylor concluded that the relationship between the gender of teachers and their perceptions and beliefs was a neglected area and could be more important than previously believed.

A more recent study using repertory grid techniques was reported by Munby (1982). Munby reviewed recent research on teacher thinking and described the two models that have produced it. These are the decision making model of Shavelson (1976, 1978, 1981) and the cognitive information processing model based on the work of Newell & Simon (1972). Both models agree that the importance of teachers' beliefs and implicit theories cannot be over-emphasised. Munby concluded that conflicting results on the relationship between teachers' beliefs and classroom practice are a result of the inadequacy of the methods used to assess what teachers believe. Munby criticised traditional attitude scale measurement, such as the MTAI, and put forward his own adaptation of Kelly's repertory grid techniques. Munby described a case study to exemplify his procedure. This consisted of two interviews, of about 90 minutes each, with an elementary teacher which were recorded on audio tape. In the first interview the teacher was asked to provide brief statements describing what might be observed in her classroom over the next week. These formed 20 elements that the teacher was then asked to group. Her statements while grouping the elements were written down by Munby and formed 16 constructs. Finally the teacher completed a rating grid with these 20 elements and 16 constructs by rating the extent to which each construct was associated with each element on a scale of one to three. A principal components analysis with varimax rotation was performed on the completed grid using the package PRIME, (Veldman 1978). The second interview used the results of this analysis as a basis for exploring the meaning of the factor groupings it produced, and eventually for labelling them. Munby (1984) reported using the same procedure with a science teacher as a case study.

2.4.3.3. Review of Personal Construct Psychology Research in Education

The review of research on teacher thinking which appears in section 2.3.4. of this chapter described many studies of teacher thinking about reading using a great variety of research methods. Despite exhaustive searches of the literature only one report of using repertory

grid techniques to study teachers' constructs specifically about reading has been found. Thus it seems appropriate to consider it in some detail.

The study was conducted as part of the Conceptions of Reading (COR) project at the Institute for Research in Teaching (IRT) at Michigan State University. The COR project resulted in many publications in the IRT Research Series and this work is probably best summarised in Duffy & Anderson (1982). The results of their attempt to produce a conceptions of reading questionnaire are reviewed extensively in section 2.3.4.1 of this chapter. The work reported using repertory grid techniques was carried out by Michelle H. Johnston, a research student and later research associate with the IRT, and a member of the COR team. The procedure was developed by Johnston (1977) to elicit teachers' conceptions of reading and she describes it as a further modification of Hunt (1975, 1976). This adaptation of the repertory test was used with teachers who had already exhibited strong views about the teaching of reading in their scores on the Propositions about Reading Inventory (PRI) developed by Duffy & Metheny (1979). It is worth remembering at this point that it was Kelly's dissatisfaction with this kind of 'trait psychology' which led him to develop Personal Construct Psychology. Johnston's adapted procedure took place within a more general interview about teaching reading and involved the sorting of 15 cards representing pupils. This produced audio tape recordings of the interviews and the investigator's accompanying notes. No grids were completed and only six triads of pupils were considered. The interview transcripts were examined for statements in which the teachers described their conceptions of reading. These were classified by the six dimensions of the attitude scale. No coding scheme is supplied, but the six categories used by the COR group were:

- 1) natural language,
- 2) basal,
- 3) linear skills,
- 4) interest,
- 5) integrated whole,
- 6) confused/frustrated/non-reading based.

These results were used to screen teachers for selection for the next phase of the COR project, which was observation. The COR team only wanted to observe teachers who closely fitted one of their six conceptions of reading. In several reports of this work, (Bawden, Buike & Duffy 1979, Duffy & Anderson 1982) it is claimed that observation

revealed that the teachers' conception of reading was reflected in their classroom practice. Johnston (1978) concluded that this adaptation of the repertory test was a useful screening tool. Due to the very inadequate reporting of the COR project it is difficult to assess their contributions, however there are several points to be made.

The methodology described appears far removed from Kelly's Personal Construct Psychology, which sees the aim of any research as the making explicit of individuals' constructs about the area under investigation. Given that the teachers only completed six sorts, their constructs may well not have been exhausted, or even sampled representatively. Also, by not using any grid form of the repertory test the possibility of any quantitative analysis of an individual's constructs has been eliminated.

The aim of the research was not the recording or analysis of teachers' constructs but simply to compare and match their statements with conceptions of reading described by the researchers. These had not come from teachers at all but were written by experts as a result of a review of the literature on reading. Personal Construct Psychology aims to collect the individual's constructs and analyse them to find the principal dimensions by which the individual understands the world. It appears a perverse reversal of this procedure to produce the dimensions before ever approaching a teacher, and the COR team only analysed the teachers' constructs in terms of these predetermined factors. Thus the validity of these six categories is extremely questionable. Evidence for the lack of validity of the 6 dimensions comes from the factor analysis of the responses of hundreds of teachers to Duffy & Metheny's (1979) PRI which consistently produced only 2 or 3 factors as described in section 2.3.4.1. above. This is congruent with the 3 factors produced by DeFord (1985) in her development of a similar attitude scale.

There are also grounds to be extremely sceptical about the simple and clear way that teachers' theoretical conceptions were supposedly reflected in their classroom practice. The relationship between attitude and behaviour is extremely complex as discussed in section 2.3.5 above. However the absence of any detailed reporting of observations makes it difficult to criticise the COR project in depth. However, it is clear that this body of work leaves many possibilities for utilising repertory grid techniques to examine teacher thinking about reading unexplored.

2.4.4. Conclusion

A review of Personal Construct Psychology research has revealed an apparent omission in the research on teachers' constructs about reading. Repertory grid techniques, although well known in education research, have not been applied in the area of teacher thinking about reading instruction. This has only been reported once, by Johnston (1978) and has never been reported in Great Britain. Applying a new methodology to the investigation of teachers' beliefs about reading could make a valuable contribution to this important area. Although every individual's constructs are unique, it is possible to make comparisons between individuals in some measures of cognitive complexity. If such comparisons are possible between teaching students and experienced teachers then the hypothesis that these groups will differ in some systematic way may be addressed. Hargreaves (1977) has been very critical of the interpretation and re-classification of constructs by experimenters. However, by so doing it may also be possible to study recurrent themes across individuals.

2.5. Summary and Conclusion

Developments in research on reading have led to a greater understanding of the reading process and how reading ability develops in children. However, this appears to have had relatively little impact on the controversy about how best to teach reading. Teachers themselves remain unconsulted and little is known about their beliefs.

A new interest in teacher thinking has generated much recent research in this previously neglected area. Much of this research has focused on the domain of literacy instruction and the question of consistency or inconsistency between teachers' beliefs and practice. Research findings have so far been ambiguous, resulting in calls for a move away from questionnaire based methods to more idiographic methods which allow teachers to construct personally meaningful data.

Personal Construct Psychology appears to offer just such an idiographic methodology which has not yet fulfilled its potential. Repertory grid techniques have the advantage of producing both qualitative and quantitative data, and the possibility of making comparisons across individuals and between individuals over time.

Therefore, the research questions for this thesis are first to discover by what method teachers' thinking about reading can be assessed, and to examine the reliability and validity of such methods. Only when a sufficiently sensitive and accurate method has been achieved can the relationship between teachers' beliefs and practice be understood.

3. Pilot Studies

3.1. Introduction

This chapter describes the pilot studies that were carried out to compare different methods of examining teacher thinking about children learning to read. Section 3.2. describes the pilot interviews, section 3.3. the pilot repertory grid study and section 3.4. the pilot questionnaire study using DeFord's (1985) TORP. The pilot studies were carried out over the Spring and Summer terms of 1994. The schools in which the studies were conducted are described in appendix B, along with a profile of every teacher who participated.

3.2. Pilot Interviews

3.2.1. Introduction

This section describes the development and pilot of a semi-structured interview schedule with primary teachers. The aim of these interviews was to gain some insight into the way in which teachers teach reading and their knowledge, attitudes and beliefs about teaching reading. The pilot interviews took place within a single primary school in Leicester. The participants were already known to the interviewer from visits made to the school for general orientation.

The objective of the interview was to gather information in the teachers' own words about their own classroom practice and how it is informed; their beliefs about practice and theory, their aims and their opinions about theory, research, practice, the media and fashions in the teaching of reading. These aims, combined with the exploratory nature of the inquiry, suggested an unstructured interview format. It was hoped that this might provide the basis for categories of a coding scheme or a more structured interview. However, the advantages of standardisation for making comparisons between teachers resulted in the decision to use

a semi-structured interview. Each topic was broached with an open-ended question which could be followed up with prompts.

3.2.2.Method

3.2.2.1.Participants

The pilot interviews took place at Orange Primary School in Leicester. The school has a good relationship with the School of Education at Leicester University, regularly taking PGCE students on teaching practice. Through this contact it was arranged for the interviewer to make regular weekly visits to the school throughout the Spring Term of 1994. On each occasion the day was spent with one year group, starting with Year 1 and finishing with Year 6. During these visits the interviewer volunteered to do anything of assistance to the class teacher, generally listening to children reading aloud. The staff were generally friendly and keen to explain how their classroom was organised and happy to answer questions.

The participants were five female teachers with between 3 and 27 years of teaching experience with an average of 14.2 years. All were full-time class teachers except for Mrs OD P16 who was a part-time reading support teacher. Full details appear in appendix B. I carried out all interviews, and the timing of the interviews was as follows:

Mrs OD P16 the part-time reading support teacher interviewed on 1.3.94.

Miss OR P17 refused the interview but returned written answers on 16.3.94.

Mrs OC P18 interviewed on 16.3.94.

Mrs OB P19 interviewed on 22.2.94.

Mrs OT P20 interviewed on 22.2.94.

3.2.2.2.Materials

An initial list of possible interview questions was drawn up with the Dr Roger Merry and Dr Martin Cortazzi, staff at the School of Education at the University of Leicester having research interests in language and reading. Mrs Jane Hislam and Mrs Fiona White, also

staff at the School of Education specialising in English, examined these drafts and passed them on to two primary teachers for comment. Several alterations were made during discussions following this feedback resulting in the final draft of the semi-structured interview which was used with all teachers appearing in full in appendix C. The handout presented to the teachers consisting of the interview questions without the prompts is also given in appendix C.

3.2.2.3.Procedure

The head teacher was approached for permission to interview members of staff about reading. Having examined the interview schedule (see appendix C) permission was granted. The individual teacher was then approached and asked whether they would mind answering some questions about reading. If they agreed, as all five teachers did initially, a suitable time was arranged at their convenience. The teachers generally wanted to know what kind of questions we would be discussing in advance. This seemed an entirely reasonable request and so Mrs OB P19 and Mrs OT P20 were shown a copy of the interview schedule. The advantages of this was that the teachers felt reassured, and had time to make a considered response to Q5 and Q6 which do require reflection. However there were disadvantages. Many of the questions start with a very open-ended question to which the teacher can make a free response, and then go on to prompt with specific cues that may or may not have been spontaneously mentioned by the teacher. This was designed to combine the benefits of unstructured and semi-structured interviews. But the teachers' free response to the open-ended question would be contaminated by having read the prompts which should follow it. To deal with this problem a handout (see appendix C) was prepared which only contained the initial open-ended questions. Mrs OD P16, Miss OR P17 and Mrs OC P18 received this handout prior to the interview. All teachers completed a personal information sheet, Mrs OD P16 and Miss OR P17 completed this prior to the interview and Mrs OC P18, Mrs OB P19 and Mrs OT P20 completed it after the interview.

Before the interview started the interviewees were asked for permission to record the interview on audio tape. The teachers were all extremely reluctant to agree despite reassurances of confidentiality and anonymity. As a result the interviewer agreed to start the interview without the tape or switch it off at various points if requested. It is likely that this was due to more to participants' self-consciousness than a desire to stay 'off the

record'. Evidence for this opinion is that no teacher asked to hear the tape or read a transcript of it. It is possible that the teachers did not realise that they could do so. However, most people find listening to themselves on tape a very unpleasant experience, and so I did not suggest this, believing it was embarrassment not confidentiality which caused the teachers' reluctance to be recorded. The interview with every teacher (except Miss OR P17) was recorded on audio tape and lasted between 20 minutes and 30 minutes. A complete transcript of each interview appears in full in appendix C. Notes were also made of the teachers' responses during the interview, but this was largely as a strategy to distract the teacher from remembering that they were being recorded. From these notes the interviewer frequently read back a reformulation of the teacher's words as a question, so the teacher could correct or confirm this interpretation. During the interview both the interviewer and the teacher had a copy of the interview schedule in front of them. This resulted in many references to the questions in transcripts which require a copy of the interview schedule (see appendix C) to make sense of them.

3.2.3.Results

A summary of each teacher's responses appears below, and the complete transcripts are available in full in appendix C.

3.2.3.1.Mrs OD P16

Mrs OD was the part-time reading support teacher with 17 years teaching experience.

Q1 What approaches and materials do you use to teach reading?

Mrs OD replied "I rack my brains and use every kind of approach I can think of" and then went on to describe her practice as reading support teacher. The children with the lowest reading ages in each class are identified by standardised reading tests from Year 3. These children then come to Mrs OD for two 15 minute session per week. Mrs OD said that her "first approach is the story method" because she wants the children to learn that books can be fun. She selects all her books herself, and they are bought from a special budget. They are non-scheme books intended to be irresistible to children; humorous and suited to the interests of their age group but with very simple vocabulary. She starts with paired reading, which may simply be reading aloud to the child at first so they can become familiar with books and how they work. Using exciting stories and without the pressure to perform by

reading aloud, she encourages the child to use context and make predictions. This is aimed at achieving a large sight vocabulary, and if this is unsuccessful she may use flash cards. Only once a sight vocabulary has been achieved does she begin to work on phonics. She does use the Upstarts scheme and the Ladybird 'Read It Yourself' books. She also implied that children are only given a book to read when they can recognise most of the words out of context, so they do not experience failure and frustration. This is more typical of a skills approach than the story method. She communicates with parents through an exercise book where teacher and parent can write to each other, and strongly encourages parents to praise their children to build the self-esteem of those who see themselves as failures. This account reveals a child-centred approach that is theoretically eclectic as Mrs OD is explicit about using a holistic approach combined with whole word and phonic approaches. Mrs OD particularly emphasises the importance of building the self-esteem and confidence of children who are failing at reading throughout the interview through her use of praise, stickers, certificates and special bookmarks.

Q2 How did you learn how to teach reading?

Mrs OD responded "Just by experience over the years." She felt her teacher training had prepared her to teach reading as a class teacher, but she felt she needed the many inservice courses she had attended to become a specialist.

Q3 Has there been a significant event which made you re-evaluate the way in which you teach reading?

Mrs OD replied that having children of her own, and observing them learning to read had made her look at the children differently and appreciate the parental input.

Q4 Describe your experience of a success and failure in teaching reading?

Mrs OD explained that she has many successes because the children keep coming to her for reading support until they are actually reading. She described one child whose reading age had gone up by two years in the last term. She attributed her success to the individual attention the children receive, the good rapport she has with them, and the change in parental behaviour she encourages.

Q5 Mrs OD said that she ignored the National Curriculum as her work was a special case. She thought newspaper coverage of reading was generally useful for parents, although

newspapers can also be critical of teachers. Mrs OD said that parents' role was absolutely crucial. She approved strongly of the school reading policy. She was particularly pleased with the variety of reading schemes available within the school, although she stressed children always have access to real books through the library. She saw phonics as useful, but suggested class teachers must make a judgement about when "the children are ready for phonics". She said that she did not work on phonics with the children who were failing until they were reading real books with enthusiasm; an interesting implication that phonics can be unpleasant for children and should be introduced with caution for fear of putting them off reading. She said that she would use flash cards as a last resort but highlighting individual differences, suggesting that some children cannot learn words out of context.

Q6 How do you define reading?

After consideration Mrs OD responded "being able to put into words the symbols written on a page, and to make sense of the words, and to understand the meaning of those words." She also believes there are pre-requisites to reading; language ability and vocabulary, clear pronunciation and familiarity with books and stories.

Q7 How confident do you feel about your own expertise in teaching reading?

Mrs OD replied "I still don't feel very confident" because she only deals with children who are failing. She said that she did draw confidence from the children's progress on the Burt reading test, and from the head's encouragement, but was always eager to "pick the brains" of other teachers.

The interview given by Mrs OD is full of paradoxes; she is more explicit about approaches than most of the other teachers, but uses elements from radically opposed approaches. The undoubted success of her interventions (reported by class teachers and measured by standardised reading test results) is perhaps more attributable to the warmth and sensitivity of the interactions rather than any single approach or method.

3.2.3.2.Miss OR P17

Miss OR was a Year 3 class teacher with 3 years teaching experience, she returned written answers to the interview questions as follows:

Q1 What approaches and materials do you use for teaching reading?

“Reading Scheme cloze procedures picture clues context clues phonics Story books sound sense Look and Read (TV programme)”

Q2 How did you learn how to teach reading?

“By using a variety of approaches. 4 cue system (pictures, context, etc.) Look and Say Story method + Phonics”

Q3 Has there been a significant event or experience which has made you re-evaluate the way in which you teach reading?

“no”

Q4 No response.

Q5 What is your attitude towards

i) Reading in the National Curriculum?

“Gives a good guide for you to follow”

ii) Current controversies in the newspapers about reading?

No response.

iii) Parents role in teaching reading?

“V. important to have home link with reading”

iv) School policy on reading?

“very positive”

v) Reading schemes?

“can be good for children who need structure and repetition of various words”

vi) Real books?

“v. positive - good for all ages”

vii) Phonics?

“- need to teach this alongside other methods”

viii) Flash cards?

“not really very useful - out of context. - don’t use them at all”

Q6 How do you define reading?

“Decoding what is written on a page to get meaning. Recognising that print carries meaning using this print for information enjoyment etc.”

Q7 How confident do you feel about your own expertise in teaching reading?

“Varies! Sometimes quite confident when children are successful but not very when they are struggling - even when you use a variety of strategies.”

Miss OR’s responses reveal an eclectic mix of elements from phonic approaches, whole word approaches and holistic approaches.

3.2.3.3.Mrs OC P18

Mrs OC was a Year 5 class teacher with 20 years teaching experience, including 7 years as a reading tutor with Literacy Support.

Q1 What approaches and materials do you use to teach reading?

Mrs OC emphasised variety in both materials and approaches. Reading materials included newspapers, periodicals, puzzle books, poetry books, plays, non-fiction and picture books. Mrs OC said approaches should be “wide and varied, it depends what the children need.” She mentioned phonics, at this level chunking longer words and blending, and using context and picture cues. In response to the probes Mrs OC explained that she does not use any reading scheme, instead the children are taught how to select a book for themselves at an appropriate level by sampling a page to check if there are more than five words they cannot read. The children are also responsible for keeping a record of what they have read, with the date, title, author and a 3 star rating of how much they enjoyed it. Communication with parents is through written comments in a book which goes home with the reading book the child has chosen to take home. The children are tested with the NFER Group Reading Test twice each year using the alternate forms to identify children who are struggling. Mrs OC said that she did not hear the children read very often as they are in Year 5, but she set up many opportunities for reading in the class with silent reading 3 or 4 times per week and play reading in groups. She emphatically stated her belief that it is totally inappropriate to use flash cards with any child. Mrs OC believes parents’ role at this stage is to help children build up reading stamina, perhaps by reading alternate pages or reading the first chapter of a book to their child and asking them to tell them about the story. Mrs OC clearly expressed

several aspects of a holistic approach to reading, however she also acknowledged the usefulness of phonics.

Q2 How did you learn how to teach reading?

Mrs OC responded “By doing it really”. She explained she had a few lectures during teacher training where they were told about flash cards and phonics, which she didn’t consider very useful. She considered her 7 years with Literacy Support as the source of her expertise.

Q3 Has there been a significant event which made you re-evaluate the way in which you teach reading?

Mrs OC replied that there had been two such events, the first had been starting to teach reception after teaching upper juniors for many years which had made her start to question why some children learned to read easily and others did not, although she said “nobody really comes up with any concrete answers” to these questions. The second event was going to work for Literacy Support which she described as “like a mega sort of course, in a way, just on how to teach reading, because different children respond to different approaches.”

Q4 Describe your experience of a success and failure in teaching reading?

Mrs OC described flash cards as an example of an utter failure “Utter, underline that numerous times.” She described her experience of attempting to use them with a reception class where the school method was to give each child a word tin with flash cards in, and not allow them to read a book until they could read the words. Mrs OC said that it quickly became apparent to her that some children would never learn the words out of context, and so would never get to read a book. Her described her greatest sense of success as coming when a child who has had chronic reading difficulties becomes “a readerholic.”

Q5 Mrs OC said that the amount of subject content in National Curriculum was squeezing out reading. She approved of the what the NC did say about reading because it encourages a very broad conception of reading. She thought newspaper controversies tend to blame teachers for everything and lead parents to panic. While she believes parents’ role is crucial she said it is vital for the teacher to communicate with them and support them, so that

reading does not become a cause of tension between the parent and child. Mrs OC commented that the school policy needs revising, which she will tackle after completing a similar review of spelling and restocking the library. She acknowledged phonics were crucial but warned that they should not be considered the only way of reading, explicitly mentioning the apprenticeship approach.

Q6 How do you define reading?

Mrs OC responded “It’s being able to decode what is on a page in front of you” but went on say that reading was not just decoding, but interacting with the text. She did believe that a child needed to reach what she called a certain state of maturity before they were ready to read, but that teachers could intervene to develop this maturity. The pre-requisites to reading she mentioned were oral language, rhyming and visual memory, and she saw their relationship with reading as mutually reinforcing. She also perceived the ability to use appropriate cues as a component skill of reading which must be taught.

Q7 How confident do you feel about your own expertise in teaching reading?

Mrs OC felt confident but remained open minded because “what works for one doesn’t work for another.” She was happy with her own practice but preparing to change the school’s practice.

Mrs OC presented the most clearly defined approach to reading instruction, explicitly citing the apprenticeship approach and describing how she practised it in examples like her modelling of enjoyment of books during silent reading time. It can only be speculated whether her emphasis on the child taking responsibility for selecting their own reading material and keeping their own reading records was influenced by the age group or not. Despite her advocacy of many elements of a holistic approach, such as rejecting schemes and flash cards, Mrs OC did not reject phonics. Her response to Q6 mentioned the importance of phonemic awareness in an account of the development of reading which was congruent with that given by Adams (1990).

3.2.3.4.Mrs OB P19

Mrs OB was a Year 1 class teacher with 3 years teaching experience.

Q1 What approaches and materials do you use to teach reading?

Mrs OB responded “everything and anything” and this pragmatism was a recurrent theme throughout the interview. She spontaneously commented that the school’s approach is very phonic. She described herself as using both a phonic approach, doing lots of sound work, and using a whole word approach for high frequency words and vocabulary from the reading scheme. She also demonstrated her use of the whole language approach in getting her class to create their own storybooks and use them as reading material. In response to the probes Mrs OB responded that she did use ‘real’ books in the book corner, for reading aloud and in the library. She elaborated on her teaching of phonics, explaining that she starts with initial sounds, moving on to end sounds and then middle sounds and combining this with the teaching of handwriting. The scheme used with this age group are Ginn and Link Up. She reported listening to each child reading aloud at least twice per week. Their progress is recorded in individual records which document what was read, and when, and the teacher’s comments after hearing them read aloud. Reading tests are not used with this age group as they are considered too young, but the school does test all children from Year 2. Parents are encouraged to share the books children take home with their child. Mrs OB appears to show an eclectic approach using elements of whole language, phonic and whole word approaches but with an emphasis on skills and individual differences.

Q2 How did you learn how to teach reading?

Mrs OB responded that she was not sure, at college she said she had lots of theory thrown at her, but only through hearing her own class read had she really learned what to do. She believes her teaching only takes place in the one-to-one time when she is hearing children read. She described what she had learned at college and the arguments in the press as very abstract. She believes “every child is completely different” and will learn to read in different ways, so the teacher must be prepared to try everything. The college encouraged the students to be eclectic and never to think there is just one right way to teach reading.

Q3 Has there been a significant event which made you re-evaluate the way in which you teach reading?

Mrs OB said that there had not as she had only been teaching 4 years and she still held the attitude of her college course that there is no one right way to teach reading so you should try everything. She did identify a difference in school approaches, reporting that her previous school left the teacher with more responsibility about what approaches they used.

Q4 Describe your experience of a success and failure in teaching reading?

For an example of a success Mrs OB described a non-reader who could not apply her phonic knowledge and “had come to a bit of a dead stop”. Mrs OB tried using a whole word approach to encourage recognition of common two letter words which often form the rime of three letter words, with some success. As another example she described a child who had a good sight vocabulary for unusual words but who could not read very high frequency words. She tried using flash cards for the high frequency words, with some success. Mrs OB could not think of a failure because she said she would never leave it at that, but would try out different strategies until she found something that worked. She believes children generally find word building difficult, and expression in reading aloud, so these could be considered common failures.

Q5 Mrs OB’s attitude towards the National Curriculum was that it needed to be interpreted in terms of individual children’s needs. Her attitude towards newspaper controversies was that they are simply opinion, because reading is so abstract “people have opinions but nobody actually knows” how it takes place. She believes parents greatly influence children’s attitude towards reading, and their success. She described parents’ crucial role in providing literacy experience, but said they sometimes need to be educated about how best to help their child through the school video and booklet. She also stressed the importance of the relationship in which reading experience takes place, for parents and teachers. She was also happy with the school policy on reading.

Q6 How do you define reading?

Mrs OB began by saying reading could not be defined easily, but went on to say “the ability to read is an ability to look at a word and know what it says or know what it means and be able to ... get the meaning from it.” This is very interesting as her definition starts with simple decoding but moves to extracting meaning. Mrs OB did believe that there were some pre-requisites to reading, she described reading readiness skills in terms of rhyme, letter matching, word matching and awareness of concepts like letters and words. She did believe that there are component skills of reading, “for some children”. She did not advocate teaching reading as component skills, but when probed also rejected a holistic approach preferring to take the best from both approaches. This seemed to be in contradiction to her answer to Q4, where Mrs OB implied that children should not be given

a book until they can read, which very much suggests that reading is taught as component skills, and only once these are mastered can the child move on to actually reading a book.

Q7 How confident do you feel about your own expertise in teaching reading?

Mrs OB replied that it depended on the child, some giving her confidence and some not, but she was confident in her ability “to try to use everything to teach it”.

Careful reading of the interview script seems to reveal an apparent discrepancy between declared eclecticism and an implicit emphasis on training in the component skills of reading. This is combined with a very pragmatic attitude that is not based in theory, but in the belief that all children are different and different methods should be used for different children. Again and again in the interview Mrs OB returned to the example of an actual child to make her points clear. She never talked in the abstract terms of theory or approaches but preferred the concrete example of a child. This is interesting because it removes responsibility from the teacher for subscribing to any theory or practice if it is the child who dictates this by their own approach to reading.

3.2.3.5.Mrs OT P20

Mrs OT was a Year 1 class teacher with 27 years teaching experience.

Q1 What approaches and materials do you use to teach reading?

Mrs TO replied “everything” to this question but in response to the probes she said that she did use ‘real’ books and phonics depending on what the children need. She said that she used whole word and phonic approaches together. The reading schemes Mrs OT used were the school schemes Link Up and Ginn 360, and also Sunshine Spirals for strugglers. Mrs OT described Sunshine Spirals as using a whole word approach aimed at high frequency words. She reported that she only used flash cards in the context of a story to get children to build sentences. Mrs OT listens to children read aloud at least twice each week, every day for those who need it. Individual reading records are kept detailing what the child has read and the teacher’s comments after hearing them read aloud, but reading is not tested until Year 2. Parents are encouraged to hear their children read aloud from books that the children have chosen to take home from a graded selection of non-scheme books. To summarise Mrs OT uses a variety of approaches based on skills with an emphasis on her own professional judgement in identifying what is most appropriate to the individual child.

Q2 How did you learn how to teach reading?

In response Mrs OT said that she is learning nearly all the time. She said that these changes came from experience, trying out ideas from courses or friends. She did not feel her teacher training in 1963-1966 had been useful preparation because it had not looked at reading schemes at all. Mrs OT also discussed the circularity of fashions in the teaching of reading which she had observed in her career, with approaches such as phonics going in and out of fashion.

Q3 Has there been a significant event which made you re-evaluate the way in which you teach reading?

Mrs OT replied that going to a really good course had led her to try the Sunshine Spirals reading scheme.

Q4 Describe your experience of a success and failure in teaching reading?

Mrs OT said every year there were some of both. Her example of a success was a child who came back to school after the weekend able to read fluently. She did not attribute this to anything in particular that she had done, but to an insight on the child's part, saying "suddenly it all clicked and fell into place for him" "the pattern just unravelled for him" "you put the last piece in the jigsaw eventually". Mrs OT said she could usually identify children at the beginning of the year who would not be able to read at the end of the year. She reiterated that methods that work for one child may not for another. But she did mention that the small number of children who fail to learn to read tend to share the same problems with pattern matching, shape matching and following stories through pictures.

Q5 Mrs OT was not unhappy with the National Curriculum, except the time scale. Her attitude to current controversies about reading was that "there's no sure fire way" to teach reading as there is no one method that works for every child, but she perceived experts as trying to dictate one right way. She did suggest while most children will learn to read eventually, providing specific help to individuals when they needed it could facilitate this. She saw parents' role as making reading an enjoyable experience for their children. She was concerned that sometimes parents pushed children too hard, leading to negative feelings and reluctance to read. She said that she sought to remedy this through discussion at parents evenings where she emphasises pleasure and the importance of building children's

confidence. She was happy with the school policy on reading and approved of the emphasis on enjoyment and independence. Mrs OT said she found reading schemes essential, citing the importance of reading material graded in terms of difficulty and her own lack of time to grade non-scheme books, although she does use them. Her emphasis was on the functional nature of reading which she saw as leading to flexibility and variety in reading material. She saw phonics as essential, but also mentioned using picture and context cues.

Q6 How do you define reading?

Mrs OT at first replied “deciphering a written code”, but then went on to say there was much more to it than that; communicating and understanding. In response to Q4 Mrs OT had mentioned the importance of sharing books with children from their first year of life and the development of concepts about literacy for later reading success. In response to the probe about pre-requisites she identified the importance of language as well as exposure to books. She believes there are very many component skills to reading at every level, from using pictures to making judgements about what has been read.

Q7 How confident do you feel about your own expertise in teaching reading?

Mrs OT replied “Not at all!” despite her experience because she said the challenge is to meet the different needs of each individual child. She also commented that she knew she could not get every child reading by the end of the year because she felt sometimes it depends on their own maturity.

Mrs OT demonstrates an eclecticism which cannot be easily categorised in terms of theory, but emphasised skills and individual differences.

Having spent some time observing and assisting four of the five teachers before the interviews took place in some ways made the interview more difficult, because although a good rapport had been established it highlighted the artificiality of the interview. On several occasions when asking a question which the teacher had answered on a previous occasion I felt compelled to say that I remembered being shown this or discussing that, just to indicate that I had been paying attention previously! The interview with Mrs OB P19 was the only one where I had not met the teacher prior to the interview and I felt a good relationship was established. Throughout all the interviews I tried to give positive feedback, by saying ‘right/mm/yes’ and through non-verbal communication, as one would naturally in a

conversation. This did seem to produce a conspiratorial confidentiality, in which teachers were forthcoming about their feelings and opinions. However I did find it difficult at times, where I would naturally disagree with some statement, and I think it very likely that teachers might sense this and only expand where we were in harmony. This kind of demand characteristic could bias results. Further, this raises ethical questions about unconditional positive feedback during the interview, even if it is implicit by not challenging some statement. For example in the case of sexist or racist opinions it can be argued that the interviewer does have a moral duty to challenge such statements. Other aspects of the interactive nature of an interview allow less problematic conclusions. The continual reformulation of a teacher's statements as questions did result in much clarification. Where the teacher's meaning was ambiguous or where the interviewer had misunderstood, this process was essential to record the teacher's views explicitly. I believe this process is to be preferred to a non-directive interview technique, where the participant simply speaks uninterrupted by the interviewer, because it allows the ambiguities and misunderstandings characteristic of all communication to be resolved.

In the case of Mrs OR P17, the least experienced teacher, the presence of the interviewer appeared to cause anxiety, which was indicated by her only permitting children to read aloud to me outside her classroom in the corridor. A good rapport was obviously not established and this resulted in her withdrawing from the interview and only completing it in writing. It is possible that if a better rapport had been established then the reassurances about the interview would have been more effective and the teacher would not have changed her mind and refused.

In other cases too much rapport resulted in a lot of non-verbal communication and shared meanings, references to discussions and events outside the formal interview. This makes the transcripts difficult to understand in isolation. There was far more of my speaking, and far more interrupting each other, as in a natural conversation. This makes the transcript an incomplete record of the interaction without further information, which in this case was not recorded. It could take the form of notes made by the interviewer throughout the period of contact with the teacher and visits to the school. With Mrs OC P18 this good rapport actually resulted in the interviewer being interviewed about the research, the School of Education and the interview schedule. The teacher took a copy of the interview schedule (see appendix C) for her own work as reading co-ordinator within the school.

3.2.4. Discussion

As the entire pilot study took place within a single school it is best considered as a case study of an entirely descriptive nature. The school and teachers interviewed were not representative of primary teachers or primary schools in several ways. The school has recently identified reading as its main priority, the head was described as “having a real thing about reading” by the staff. Mrs OP P16 and Mrs OC P18 were also specialists in teaching reading, having a great deal of expertise and experience. Despite these cautions which must qualify the results there were many ways in which the teachers revealed similar attitudes and marked differences.

All the teachers interviewed shared the conviction that they had learned how to teach reading by experience rather than their initial teacher training. This in very much in keeping with the results of previous surveys reported by Brooks, Gorman, Kendall & Tate (1992), Lambley (1995). However they were more positive about inservice training. The teachers were similarly unanimous in their concern about the results of pressure about reading from parents, potentially damaging their work to make children enjoy learning to read. Perhaps this is a reflection of the high socio-economic status of most parents at Orange Primary School and relatively high levels of achievement in reading. Most striking was the teachers’ eclecticism, none except Mrs OC P18 rejected any aspect of any approach to reading instruction. Their attitudes were not based on research, in fact demonstrating ignorance or scepticism about its existence, describing it as abstract and theoretical. Linked to this, all the teachers emphasised individual differences and professional judgement in selecting the most appropriate method for child. This is in conflict with research findings as Adams (1990) comments that the idea that instruction should be tailored to the aptitudes of individual children has been disproved by research, citing eight separate reviews (see Barr 1984, Stahl 1988, or Tarver & Dawson 1988 for the more recent) concluding that the same approach is best for all children, explicit teaching about the sounds in speech as early as possible.

There were also striking differences between the teachers in their attitudes to reading out of context and the use of flash cards. There was in fact some tension in the school between the newly appointed Mrs OC P18, with a more explicitly holistic approach, and long

standing members of staff such as Mrs OT P20 with a phonic emphasis. At the time of the interview there was some polite disagreement over changes associated with the restocking of the library, and anticipated conflict over the future review of the school reading policy. But I think it is fair to say that all the teachers were pragmatic in practice and eclectic in theory, there was certainly no evidence from these interviews for the conflict between theoretical orientations which is found in the literature. The teachers interviewed saw no contradiction between using phonic approaches, whole word approaches, and a holistic approach to language and literacy aimed at seeking meaning and pleasure in reading.

In conclusion, the pilot interviews provided a very rich source of data in the form of a case study of a school. However, they may not be the best way to extract information about teachers' attitudes and beliefs because teachers, or at least the teachers in this pilot study tend to think in concrete terms, more about actual children than ideas. Another practical difficulty is the necessity of transcribing the interviews, which is extremely time consuming. Notes made at the interview were very unsatisfactory and my initial impressions of the interview were also very unreliable. Only through careful examination of the transcripts could an account emerge, and only then were certain inferences or comments identified. In future research using interviews it is suggested that a second interview is arranged so that after transcription the interviewer can return to explore such interesting points initially overlooked. Future research should also ensure that several schools are sampled as the similarities in these interviews may be a product of the coherent school policy on reading and unrepresentative of teachers in general.

3.3. Pilot Repertory Grids

3.3.1. Introduction

This section describes the pilot of an adaptation of the group form of Kelly's role construct repertory test with primary teachers and student teachers. This form of the repertory grid uses triads of elements to elicit constructs from the participant. The elements are then assigned by the participant to one of the poles of the construct to form a binary matrix. This remains more faithful to the original grid form than later developments such as the ranking or rating grid, although it may present difficulties in analysis. Although every

individual's constructs are unique, it is possible to make comparisons between individuals in structural measures of their cognitive complexity. Thus the aim of this pilot study is to explore repertory grid techniques as a method for probing teachers' beliefs about reading, and to examine individual differences in the structure of repertory grids.

3.3.2.Method

3.3.2.1.Participants

The subjects were 4 PGCE students at Leicester University School of Education and 15 full-time teachers working at seven Leicestershire schools. The schools reflected the diversity of Leicestershire in the representation of ethnic minorities, language communities and range of rural, urban and differing socio-economic status of the schools. All participants were volunteers and so are unlikely to be representative in many respects. The teachers were recruited through the School of Education as they were all acting as teacher-tutors to primary PGCE students on teaching practice at the time of the study. The teachers were generally very experienced. Data were available in 13 cases, these teachers had between 2 and 30 years experience with a mean of 15.5 years. There were 12 female and 3 male teachers, reflecting the gender distribution of the profession. The PGCE students had all successfully completed their course and there were 2 female and 2 male students. The repertory grid interviews were all carried out by the author acting alone between the 6 June and 29 June 1994.

3.3.2.2.Experimental Design

In order to ensure standardisation of the procedure with each participant the interviewer kept closely to a check list of instructions and prompts. A copy of this was kept on hand during the interview procedure so each item could be checked off as it was covered. Thus each participant received the same instructions and prompts from the same interviewer, although the form of words might vary. A possible example of wording used is given in the procedure in italics.

3.3.2.3.Materials

The grid was adapted from the group form of the Role Construct Repertory Test described by Kelly (1955). The grid consisted of fifteen elements, who were fifteen randomly selected pupils from the class register. The constructs were supplied by the participant as described in the procedure. The form used appears in figure 3-1 below.

3.3.2.4.Procedure

The first teacher completed fifteen sorts from a grid of fifteen elements, but all subsequent participants completed just ten sorts. The standard procedure for each participant was as follows:

Before starting the procedure an introduction was made to the teacher and a brief explanation of the task given. This was to be quite flexible in detail and duration as the teacher's questions had to be answered to their satisfaction. It was also an opportunity to help the teacher feel comfortable and reassure them that they are not being tested. Throughout this procedure the interviewer tried to remain unconditionally and uncritically positive about the teacher's statements, without adding comments. The rationale for this was the aim to encourage the teacher to enlarge upon their statements, which should be facilitated by positive feedback, without contaminating them with the interviewer's knowledge or judgements. It was anticipated that it would probably be necessary to question, repeat or rephrase the teacher's words in order to obtain clarification and confirm mutual meaning. Suggestions of appropriate words to fulfil the aims stated above will be printed in italics throughout.

Hello I'm HJS, before we start we'll need the register or class list. I'm a research student at the School of Education and I'm studying reading. I want to talk to teachers because you are the experts about reading. What I would like to do is talk to you about the children in your class, because you must know them pretty well by now and I'm interested in what you think about their reading. This usually takes about three quarters of an hour, I do realise how busy you are and I really appreciate you giving up your time to talk to me.

Check that the teacher's name, the school's name and the date are written clearly on the paper. Other important data like the age of the children in the class, the teacher's experience and so on should be recorded on the sheet with the DeFord (1985) TORP.

Figure 3-1 Blank repertory grid used in the pilot study.

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Name:

Date:

School:

Introduce the repertory grid.

This is a repertory grid, Have you seen one before? It was first used by a psychologist called George Kelly and all it is is a way of getting people to describe their ideas. I hope it will be interesting to do!

Emphasise that it is the teacher's thoughts and beliefs which are of interest and they are to be recorded in writing in their own words.

Now what I'm interested in is your ideas about reading, so I thought it would be good to use a repertory grid to get you to do all the work and write down what you think in your own words.

Explain the elements of the repertory grid.

Along the top of the grid you have 15 children each represented by a number. What I'll do is sort out three of the children at a time and ask you to tell me some way those particular children are similar and different. What it means by a construct is an idea, and what it means by a contrast is whatever the opposite of that idea is. Where it says construct you write the similarity and where it says contrast you write the difference. I think the best way to explain it is to do one.

The teacher should feel free to change what they have written after further thought by simply crossing it out and adding as much as they feel is necessary to make it clear.

Feel free to change anything you have written, just cross it out and add as much as you feel you need in order to make it clear.

The teacher should be encouraged to address their writing, and the interviewer as if they were the teacher who would take the class next year.

In deciding how much you need to write to be clear you might want to think about who you are writing for. You can assume that the person reading your constructs is another teacher, perhaps the teacher who would take the class next year.

The names of 15 children should be numbered and recorded on a separate piece of paper.

In order to ensure that the 15 children are truly representative of the class the names should be drawn from the register not selected by the teacher. If the first name on the register is chosen as child 1, and each alternate name following as child 2, 3 and so on then most of

the 15 can be elicited in this way and should be truly random. Any more children's names required to make 15 will have to be picked out from the remaining children on the register. *Now, we need the names of 15 children in your class. Here is a piece of paper. Now if you write number one and then the first child's name by it then you will know which child is which but I can just call them by their number. If we use numbers instead of names then anything you say remains completely confidential as I don't need to know who the children are, and you can keep this or throw it away when we've finished.*

Establish what is expected of the teacher, and what is legitimate as a construct.

Because I'm interested in reading I want you to think of constructs which are something to do with the child and reading, but that is the only limit. They can be anything you like.

Establish recording procedure and complete first sort.

Here's another piece of paper, if you divide it in half you can write your similarity on the left side and the difference on the right. So if you label the columns and write 'one' for the first sort we can start. We have three children from your class we want to focus on x, y and z. Can you tell me in what important way two of these three children are alike and at the same time essentially different from the third?

Which two are similar?

What is the similarity?

And how is the third child different?

Are you happy with that and can you write it down for me?

Once the construct is recorded ask the teacher to go through their list of children and see if the construct applies to any other children. If so tick the box in the repertory grid. Be careful to look for patterns or inconsistencies in the teacher's application of similar constructs to the children.

Now, can you tell me if any of the other children are as _____ as x and y.

Repeat for ten sorts.

So that is the basic idea and we can just continue looking at different sorts of three children. If you find you want to write a construct which is similar or the same as one you've already written that is absolutely fine and just go ahead.

If the teacher remarks how difficult the sort is, prompt.

Why is it difficult, are they all too similar or too different?

Perhaps you can think of just one thing they have in common, maybe for very different reasons?

It can be anything to do with reading, their attitude, motivation, success, preferences, anything at all.

Establish which construct the teacher feels is the most important, or the most widely applicable, and record this. Check that the grid is complete and that the teacher has reread their statements and made any amendments they wish to.

Now we've finished, looking at all the children together what do you think is the most important difference that you have come up with, if you could just say one thing?

Why?

Right, just checking over what you have written, are you happy with it?

Do you feel this sums up what you think, or would you like to make any changes?

Thank you very much indeed for helping me, It's been really interesting. Thank you for letting me take up so much of your time.

3.3.3.Results

3.3.3.1.Quantitative Analysis

The completed repertory grids generated in this way consisted of a matrix of 15 elements and 10 constructs for most participants. This matrix was binary as participants were simply asked whether each element was characterised by the construct (represented by a tick in the grid) or by the contrast (represented by a blank cell in the grid). In some cases the categorisation of elements in this way was not completed due to time constraints. The table below summarises this data for each participant.

Table 3-1 Results of the pilot repertory grids.

	elements	written constructs	completed constructs	distinct constructs	Year Group

Miss SW P1	15	10	8		Year 4
Miss SP P2	15	10	0		Year 5/6
Mrs SS P3	15	10	9		Year 6
Mr RM P4	15	10	5		Year 3/4
Mr RT P5	15	10	10	9	Year 5/6
Mrs GF P6	15	15	15	12	Year 5
Mrs VH P7	15	10	10	7	R
Miss VP P8	15	10	10**	6	Year 4
Mrs IB P9	15	10	9		Year 4/5
Mrs IG P10	15	10	10*	8	R
Mrs IT P11	15	10	10	9	Year 4/5
Mr WP P12	15	10	10	8	Year 3
Mrs WB P13	15	10	9		Year 5
Mrs PJ P14	15	10	10	7	R
Miss PT P15	15	10	10	9	Year 4
PGCE 1	15	10	10	6	
PGCE 2	14	10	10*	10	
PGCE 3	15	10	9		
PGCE 4	15	10	10	9	

* one construct was not binary but rated 0, 1, 2

** two constructs were not binary but rated 0, 1, 2

Where all the elements had been categorised for ten constructs with verbal labels the matrix was subjected to quantitative analysis. The grids were analysed using SPSS. This analysis proceeded by calculating a correlation matrix for all constructs for each matrix. Because of the non-parametric nature of the data Spearman's rank order correlation coefficient was calculated. The square of the correlation coefficient is the variance, and the sum of the variance for all the constructs is the Intensity score, a measure of cognitive complexity. A full discussion of measures of cognitive complexity is included in chapter 5. Cognitive structure was explored by performing a principal components analysis using varimax rotation with SPSS. While non-parametric data is not usually considered suitable for such multivariate analysis, statisticians such as Slater (1976, 1977) have set a precedent for the

use of such methods with repertory grid data. The results of the principal components analysis are summarised in the table below.

Table 3-2 Intensity and percentage variance accounted for by the factors of principal component analysis form the pilot repertory grids.

	Intensity	I	II	III	IV	V	VI	VII
Miss SW P1								
Miss SP P2								
Mrs SS P3								
Mr RM P4								
Mr RT P5	3641.6	56.1	23.2	8.0	4.5	2.8	2.3	1.6
Mrs GF P6								
Mrs VH P7	2938.5	40.7	28.6	20.2	8.1	1.4	1.0	0.0
Miss VP P8	4448.6	61.5	23.5	9.1	3.9	1.2	0.8	0.0
Mrs IB P9								
Mrs IG P10	3981.6	59.1	27.4	6.1	3.5	1.7	1.4	0.5
Mrs IT P11	2521.0	38.9	26.1	13.7	9.3	6.2	3.2	2.5
Mr WP P12	3039.5	42.3	31.3	15.8	7.1	2.5	1.0	0.0
Mrs WB P13								
Mrs PJ P14	4285.8	61.9	17.9	9.2	6.0	3.8	1.2	0.0
Miss PT P15	2846.8	44.8	21.3	17.0	7.2	5.1	4.2	0.4
PGCE 1	4901.6	67.2	14.1	13.0	3.7	1.7	0.4	0.0
PGCE 2	2592.7	40.4	25.4	18.5	5.3	4.5	3.4	2.0
PGCE 3								
PGCE 4	3382.0	49.6	22.7	13.2	7.7	5.1	0.9	0.7

There were considerable individual differences in both Intensity and the percentage variance accounted for by the first factor of principal components analysis (PVAFF). These measures were very highly correlated with Pearson's product moment correlation coefficient $r=0.98$, $p<0.001$, which is congruent with theoretical predictions as they have both been used as indicators of cognitive complexity in previous research. The mean Intensity was 3507.2, with a standard deviation of 805.2 and the mean PVAFF was 51.1 with a standard deviation of 10.3. If only components with an eigenvalue greater than one are considered significant then seven of the eleven completed grids had a three factor solution and four had

a two factor solution to the principal components analysis. This does suggest that despite individual differences all teachers whose completed grids were analysed in this way are thinking about reading in a complex and multidimensional way. The components can only be interpreted by close examination of the factor loadings of the written constructs towards the components for each individual teacher.

As only three PGCE students fully completed grids there is too small a sample to compare experienced teachers with student teachers. However it is possible to correlate participants' years of teaching experience with Intensity and PVAFF if PGCE students are considered to have zero years of teaching experience. The Pearson product moment correlation between years of teaching experience and both Intensity and PVAFF was negative but nonsignificant.

3.3.3.2. Qualitative Analysis

Examining the content of teachers' written constructs the following coding scheme was developed to categorise constructs. The constructs appear in full in appendix E exactly as they were written by the participants.

Figure 3-2 Coding scheme for teachers' constructs about reading.

A Achievement

achievement at an appropriate level, from mastering initial letter sounds to becoming a mature independent reader

- a 1 performance reading aloud
- a 2 reading comprehension
- a 3 support received with reading through school
- a 4 achievement fulfilling potential, or underachieving
- a 5 rate of progress with reading
- a 6 independence in selecting reading materials
- a 7 confidence

B Motivation

pleasure, enjoyment and enthusiasm for reading

- b 1 intrinsic

- b 2 needing encouragement
- b 3 preferences for reading material

C Strategies

access to a range of strategies

- c 1 phonic cues
- c 2 sight vocabulary
- c 3 picture cues

D Pre-requisites for success in reading

any skill or trait identified by the teacher as important

- d 1 parental support
- d 2 English language proficiency and vocabulary
- d 3 concentration
- d 4 effort

E Other

- e 1 SEN
- e 2 reading limits access to the curriculum

Using these content categories the written constructs and contrast of every teacher were coded. As many of the constructs and contrasts contained more than one idea they were coded more than once. This makes it almost impossible to quantify the relative frequencies with which different teachers generated statements in each category. However, some more qualitative observations can be made. There were no KS1 teachers in the pilot sample at all, but three reception teachers and twelve KS2 teachers. There was an enormous difference between them in terms of the content of construct and contrast statements. Many of the reception teachers' constructs were concerned with aspects of reading readiness; exposure to books, experience of drawing and scribbling, spoken vocabulary, recognition of their name and so on, or very simple constructs such as whether the children had started the school reading scheme, or were attending school full-time or part-time. Teachers of the upper juniors, where most children have mastered the mechanics of reading, mentioned more constructs involving preferences in fiction genre or performance in reading aloud.

However there were many universal themes that emerged in teachers' constructs across the age range. The themes mentioned by most of the experienced teachers were:

- 1) Children's motivation towards learning to read. Many constructs were concerned with the enjoyment of books and pleasure in reading. One aspect of this was the extent to which children's enthusiasm for reading needed to be encouraged by the teacher.
- 2) Achievement of fluency and independence in reading, and the extent to which children had become mature readers. Comprehension of text remained an important construct at all levels of reading ability.
- 3) Parental support was frequently seen as the most important factor for success in reading, not just for children at the early stages of learning to read.
- 4) Teachers also emphasised the range of strategies which children seemed to have at their disposal, including sight vocabulary, phonic skills and the use of other cues such as context or pictures.

3.3.4. Discussion

Assessment of teachers' perceptions of the utility of repertory grid research as a method was not the primary aim of the pilot, but there was some incidental data collection on this point in teachers' feedback. Statements spontaneously volunteered by teachers suggest that they found it a very interesting experience in terms of the development of their own professional thinking.

When considering the possibilities of future research using repertory grid techniques, there are several questions which arise as a result of this pilot work. The first question to consider is how many sorts are necessary.

The time required to conduct sorts is a very important practical constraint. Interviews of longer than one hour are simply impossible given the time pressure under which most primary teachers find themselves, and the fact that they are giving up their time voluntarily. However, from a theoretical viewpoint it is desirable to know how many sorts are required to exhaust the teachers' supply of constructs. Practically, in future research it may be most efficient to conduct a preliminary interview before attempting to use the repertory grid. This would allow the clarification of many aspects of the teacher's work (such as the

materials available, reading support provision, whole school reading policies) prior to the repertory grid procedure. In this pilot some considerable time was spent on such issues during the procedure and covering them separately could allow more sorts to be conducted. According to Personal Construct Psychology, the number of constructs may be different for each teacher, and so the number of sorts necessary will also be different for each teacher. However, if standardisation of the procedure is desirable then it is worth considering the results of the analysis of the pilot grids. If we consider the total number of constructs each participant produced, then assuming they are representative of the population to be sampled, it would be possible to calculate how many sorts might be needed to elicit that number of constructs, assuming for the purposes of this calculation that those constructs having a perfect correlation are in fact the same. This would suggest that, for this sample of teachers, with this procedure where ten constructs were fully completed the number of distinct constructs ranged between 6 and 10. The mean, median and mode were 8 distinct constructs. However, Mrs GF P6 who completed 15 constructs produced 12 distinct constructs so perhaps this is an underestimate.

Another important question is how to record teachers constructs. There are essentially three ways of doing this:

- 1) by audio taping the interview and transcribing it,
- 2) by asking the teacher to write down the constructs in their own words, or
- 3) by the interviewer recording the constructs in writing after verbal clarification from the teacher.

In this pilot methods 2) and 3) were used in all cases and so are available for comparison, and transcriptions are available in three cases (they appear in full in appendix D). One difficulty which arose during this pilot is that teachers were not writing down very much of what they expressed verbally as constructs and contrasts. There was a great deal of variation from one individual to another. Some participants, having discussed and clarified their constructs wrote a clear and legible summary. However, some participants, having talked fluently, jotted down a tiny fraction of what they had said in incomprehensible notes, for example 'comp.' was written down as a complete construct with no indication that comprehension was good, poor or indifferent despite extensive verbal elaboration on this. Although these shared meanings are temporarily available during the interview they cannot be analysed. Another problem that arose from poor recording of constructs was that sometimes teachers struggled to remember the direction of the construct, and were forced

to look back to the previous sort to recall which extreme had been the construct and which the contrast.

The final issue to consider is how reliable and valid are these repertory grid procedures. The work reported by Fransella & Bannister (1977) on the reliability of constructs elicited found reasonably high reliability after short time intervals. Because the reliability of constructs elicited is so specific to the precise form of the grid employed and the population from which the participants are drawn, such research is of dubious relevance to the current study. However, in order to gather data on the reliability of this adaptation of the repertory grid with a population of primary teachers it might be fruitful to use the same method and repeat the repertory grid procedure.

3.3.5.Recommendations for Future Research

3.3.5.1.Participants

The repertory grid technique seems particularly suited to a descriptive case study approach to the area of teacher thinking about how children learn to read. The unit of analysis is the teacher but there is also a case to be made that the school could also be the unit of analysis. Therefore a sample of schools should be selected that is representative of what it is to be studied, in this case teachers' beliefs about reading. Because the purpose of this study is to gather just this information this will be impossible. However, the schools should reflect the diversity of Leicestershire in the representation of ethnic minorities, language communities and range of rural, urban and differing socio-economic status of the schools. Within the school an assessment of whole school reading policies, materials and reading support provision would be a useful preliminary to the focus on the individual teacher.

3.3.5.2.Form of the Grid

A rating or ranking grid would have many advantages over the dichotomous repertory grid used in this pilot. It allows the teacher to make much finer distinctions, while constructs may be dichotomous (bipolarity corollary) the teacher does not appear to perceive a class as dichotomous in terms of their constructs. From the way in which several teachers

spontaneously attempted to make ranking distinctions it would appear that individual children are perceived on a continuum of the construct. Using a rating or ranking grid would also allow a more meaningful analysis of the teachers' grid matrix. In choosing between the ranking or rating grids, the most important factor to consider is the size of the grid. A 12x12 ranking grid would require participants to rank twelve elements, which is extremely difficult because it involves the mental manipulation of so many elements simultaneously. The reliability of the rank for so many items is low. Thus a rating grid, which only requires the participant to think about one element at a time should be simpler to complete. Using a 7 point Likert scale should produce maximum reliability as Miller (1956) demonstrated that short term memory holds about 7 items.

With respect to recording the constructs it would appear that maximum clarity could be achieved by the researcher recording the teachers' construct and contrast statement in writing on the grid. It might also be useful to rearrange the grid so that the list of contrast and construct statements appear on the opposite sides of the grid to avoid confusion between the poles.

3.3.5.3. Retesting

Repeating the repertory grid procedure at different points throughout the school year will allow calculations of the reliability of constructs elicited, if the same elements are used on each occasion. Perhaps more interestingly it may result in a picture of the children's progress and development in reading throughout the year and the teachers' changing conceptions of this. The apparent contradiction between these aims was noted by Kelly, who is quoted by Fransella & Bannister (1977) "Reliability is that characteristic of a test which makes it insensitive to change" (p. 82).

3.4. Pilot Questionnaire

3.4.1.Introduction

This section describes the pilot of the DeFord (1985) Theoretical Orientation to Reading Profile (TORP) questionnaire. This pilot compares the responses of PGCE students and their teacher tutors to the questionnaire.

The Theoretical Orientation to Reading Profile (TORP) has been discussed in detail in chapter 2. But to repeat the relevant details, the TORP is a questionnaire designed to assess teachers' attitude to the teaching of reading. The TORP is designed to tap three theoretical orientations to reading; a phonic orientation, a skills orientation and a whole language orientation. The TORP contains 28 items where respondents are asked to endorse statements about reading on a 5 point Likert scale, from agree strongly to disagree strongly. The phonic subscale has 8 items, the skills subscale has 10 items and the whole language subscale 10 items, all presented in a randomised order. The TORP appears in full in the form in which it was administered in the pilot study in appendix F.

3.4.2.Method

3.4.2.1.Participants

The participants were 12 PGCE students at Leicester University School of Education and 12 of the 15 full-time teachers working at seven Leicestershire schools who had completed the pilot repertory grid interviews. The schools reflected the diversity of Leicestershire in the representation of ethnic minorities and range of rural, urban and differing socio-economic status of the schools. All participants were volunteers. The teachers were recruited through the School of Education as they were all acting as teacher-tutors to primary PGCE students on teaching practice at the time of the study. The teachers were generally very experienced. There were 10 female and 2 male teachers, reflecting the gender distribution of the profession. The PGCE students had all successfully completed their course and there were 5 female and 4 male students with 3 cases where data was unavailable. The participants completed the TORP between 6 June and 29 June 1994.

3.4.3.Results

The results were analysed using SPSS. Twelve of the twenty-four participants failed to give a clear response on 1 or more of the 28 items, but to avoid discarding these cases entirely the midpoint of the Likert scale was used as a substitution. With this substitution the following results were obtained.

The group of teachers endorsed the whole language subscale items significantly more than the group of PGCE students, ($t=2.16$, $p<0.05$) but there were no significant differences between the group of teachers and PGCE students on the other subscales or on the total score.

Table 3-3 Group means and standard deviations on the TORP subscales from the pilot study.

	phonics		skills		whole language		total
teachers n=12	29.88	3.54	28.21	4.76	20.50	3.32	78.58
students n=12	29.33	3.87	28.08	4.42	23.45	3.38	80.86

Table 3-4 Group means and standard deviations on the TORP subscales from DeFord (1985).

group	phonics		skills		whole language		total
phonics n=30	19.47	3.34	24.37	3.18	30.37	2.59	74.21
skills n=30	26.87	5.50	23.87	5.60	28.23	4.01	78.97
whole language n=30	48.40	2.08	47.50	3.06	9.13	1.38	105.03
Total n=90	31.58	12.93	31.91	11.81	22.58	10.01	86.07

These results were quite comparable with DeFord's (1985) figures for the whole sample and quite different to the pattern of the group of whole language orientated teachers. The standard deviations from the pilot study are very much smaller than DeFord's for the whole sample. However, this is only to be expected as DeFord chose teachers with strongly contrasting views to form the three groups in the validation study. When the standard deviations for these three groups are examined they are of a similar order to the standard deviations in the pilot study.

In order to examine the relationship between the subscales of the TORP, Pearson's product moment correlation coefficient was calculated and the results are shown in the table below.

Table 3-5 Pearson correlations between the subscales of the TORP from the pilot study n=24.

	phonic	skills
skills	0.64 p=0.001	
whole language	-0.65 p=0.001	-0.46 p=0.023

Table 3-6 Pearson correlations between the subscales of the TORP from DeFord (1985) n=90.

	phonic	skills
skills	0.92 p<0.01	
whole language	-0.95 p<0.01	-0.91 p<0.01

The pattern of correlations from the pilot study was similar to DeFord's (1985) findings for the whole sample in the validation study. The relationships in the present pilot study were generally weaker, but in the same direction. The explanation for this may again lie in the fact that DeFord selected three groups of teachers known to hold very strong and coherent theoretical orientations to reading, which may well not be the case for the teachers in the pilot sample here.

3.4.4. Discussion

Feedback from teachers completing the TORP was very negative. Many found it very difficult to simply pick one point on the scale. They felt the statements were ambiguous and repeatedly when asked whether they agreed or disagreed they wanted to write 'it depends on the individual child'. Hoffman & Kugle (1982) also report teachers' frustration and dissatisfaction with using the TORP and the similar Propositions about Reading Inventory.

The teachers found it very hard to generalise from individual children to categorical statements about reading. This gave rise to missing data and a large proportion of responses at the midpoint of the Likert scale. While the TORP may be a useful instrument for assessing the theoretical orientation of teachers committed to one philosophy or another, it would appear that the teachers in the pilot study were sufficiently eclectic in their approach, putting the learner's individual needs, strengths and weaknesses first, to be flexible and were not committed to any one philosophy. Therefore the TORP may not be a particularly appropriate tool to investigate individual differences, at least in these participants' theoretical orientation to reading. The pilot sample appear to be homogenous in their eclecticism.

A further criticism of any questionnaire research which is particularly relevant in the present context is that it cannot reveal anything new, anything that is not included in the provided questions. In an exploratory study, such as the present case, where the constructs teachers use to think about reading are relatively unknown, it may be premature to use an instrument consisting entirely of closed questions. Because such questions require participants only to tick a box they can provide no insight into the thoughts of those completing the questionnaire. It is this lack of interaction which causes teachers difficulty in completing the TORP, as it cannot allow them the provisos, exceptions and illustrations they wish to make in describing their thinking about reading.

3.5. Conclusion

Reflecting upon the findings of these pilot studies it appears that there is a wide gulf between teachers and researchers in their knowledge, attitudes and beliefs about the teaching of reading. At times they hardly seem to be talking the same language. Teachers are child centred and provide pragmatic, eclectic, largely non-theoretical statements about reading based on concrete experience. Researchers tend to start from abstract theories about reading and produce exclusive recommendations about reading instruction. Teachers and researchers also demonstrate little awareness of each other's activities. Generalising from the tiny pilot interview sample is unjustifiable, but every teacher clearly expressed their belief that there is no one right way to teach reading that works for all children.

Researchers have reached consensus about how reading takes place and express surprise at the continued controversy (Merritt, 1985) and concern about the failure of the fruits of their

research to be translated into classrooms (Stainthorp, 1992). Therefore it is unsurprising that attempts to assess teachers' beliefs in terms of theory have been so problematic, including the pilot questionnaire study.

Having conducted field trials using interviews, repertory grids and questionnaires and weighed up the advantages and disadvantages of each method, the repertory grid technique appears to offer the most promising avenue for further research. The summary of recommendations for future research from the pilot repertory grids provides the basis for the main study of this research project.

4. Method

4.1. Introduction and Rationale

Personal Construct Psychology is a complete and explicit theory and methodology. While there are criticisms to be made, it is broadly accepted here as the theoretical framework within which the main study was conceived and carried out. However, Personal Construct Psychology is extremely flexible in the application of its methodology, and some justification of the particular approach adopted here may be required.

Personal Construct Psychology in itself cannot be categorised as either quantitative or qualitative. It is idiographic and does not seek to produce generalisable results, but its goal is the mapping of an individual's psychological space and it does permit quite precise measurement of change within the individual.

The approach in the main study, as in the pilot repertory grid work, was to allow teachers to produce and record their own personal construct system by triadic elicitation. There seemed no value at all in providing constructs, as that was the very object of the investigation. The elements were selected from the children the teacher was currently teaching, as in the pilot study. These elements had met Kelly's prescription for the range of convenience for examining teachers' thinking about children learning to read.

Some participant observation was also involved, but this was only a small part of the research. The research questions define teacher thinking as the area of investigation. Therefore the emphasis of the research is on gathering teachers' thoughts about children learning to read, rather than observing the process. Although observations provide the researcher with a context for teachers' accounts, observation alone cannot reveal the teachers' thoughts and beliefs. With such a complex cognitive skill as reading, and in such a complex social context as the classroom, any observer's inferences will be of limited value. The best way to achieve insight and understanding of the teachers' thinking is to ask them, and repertory grids provide a useful way to help them make this thinking explicit. Thus the

main functions of the participant observation are to establish the participants' trust so they may confide their thoughts to the observer, and to provide a shared experience to draw upon during interviews. For example, a teacher might say “well, like today, you saw for yourself when A. was...” seeking the observer's confirmation of their interpretation of events. The period of observation allows the observer to see teachers' accounts in the context of their own experience and this shared meaning is the basis for understanding. The value of this was clearly demonstrated in the pilot studies, see section 3.2. of the previous chapter.

The participant observation is certainly not ethnographic in nature, being very structured. The research questions were clearly formulated before any research was undertaken. The observations were limited and no attempt was made to follow teachers to school fêtes or staff meetings (although fitting into the school routine did sometimes involve eating school dinners with the staff and pupils or accompanying staff to the pub for lunch). Further, changes were imposed upon the normal routine of the teachers and children by the research, through the repertory grid interviews and by the completion of reading tests by classes not normally expected to do so. Indeed the main study was designed to keep variables such as the age of children and the time between repertory grid interviews constant.

Thus it was decided that the main study should utilise repertory grid interviews with as large a sample as was feasible for a case study approach. Using a longitudinal design would also allow assessment of change in the teachers' perceptions of pupils, and of stability in their personal construct systems. This methodology is neither experimental nor generalisable, but the results produce a unique portrait of each teachers' thoughts and beliefs in this area.

The main study designed to achieve these research objectives was organised into three phases of data collection. The timetable for these is shown below:

Phase 1	from half term in the Autumn Term 1994/5 ¹
Phase 2	from half term in the Summer Term 1994/5
Phase 3	from half term in the Autumn Term 1995/6

¹ Due to unanticipated delays Phase 1 actually continued into the first weeks of the Spring Term.

4.2. Summary and Aims

4.2.1. Phase 1

In the first phase the researcher spent at least one day with each teacher as a participant observer. The aim of Phase 1 was to establish a good relationship with the participant where they had not been previously involved with the research, collect some background information about the teacher, the class and the school, and elicit the first repertory grid.

For each teacher:

- 1) The background information questionnaire was completed.
- 2) The first repertory grid was completed, with twelve children as elements and twelve constructs provided by the teacher by triadic elicitation.

4.2.2. Phase 2

The second phase again involved some participant observation, but there were three separate strands to the data collection. They were carried out in the following order for each teacher:

- 1) The repertory grid elicited in Phase 1 was repeated, this involved re-rating the same twelve children in terms of the twelve constructs previously elicited.
- 2) Feedback was provided for each teacher from their first repertory grid. The feedback consisted of an explanatory handout and their own FOCUSED grid, which was then discussed in a semi-structured interview. The teachers were also asked to produce a concept map using the constructs from the repertory grid, and any others they felt might have been omitted.
- 3) A semi-structured interview about the new National Curriculum in English was completed, focusing on how the themes within the Attainment Target Reading related to the teacher's own constructs.

In addition to the data collected from each teacher a measure of the children's general reading ability was also collected. For this purpose the NFER-NELSON Group Reading Test 6-12, formerly known as the Macmillan Group Reading Test (Macmillan Test Unit, 1985) was administered to the children. It yields a standard score and a reading age.

4.2.3. Phase 3

The aim of the third phase was to establish the representativeness and stability of the personal constructs about reading teachers had previously provided. Before visiting the participants again in Phase 3 they had all received feedback from their second repertory grid in the same format as the feedback they received in Phase 2 with a letter thanking them again for their participation. For each teacher:

- 1) A completely new repertory grid was elicited following the same procedure as Phase 1.
- 2) The first repertory grid was completed for a third time, which involved rating 12 new children on the 12 constructs previously elicited in Phase 1.

4.3. Participants

The participants in the main study were 20 primary teachers at 8 different Leicestershire schools. The schools and teachers are described in some detail in appendix A. In order to maintain their anonymity the schools are only identified here as Green, Blue, Red, Violet, Yellow, White, Pink and Orange, and the teachers as Miss GM at Green Primary School or Mrs BS at Blue Primary School. The schools were selected to reflect the diversity of Leicestershire schools in terms of the representation of ethnic minorities, the size of the school, the type of catchment area, and rural, urban or suburban location of the school. The schools were all in regular contact with the University School of Education, and all regularly took PGCE students through the partnership scheme and supervised students on teaching practice. The participants were all primary teachers employed by Leicestershire LEA who had volunteered to participate in the study. Many of the teachers had acted as teacher-tutors to PGCE students on teaching practice (one was responsible for a student during the study), and some had been involved in research or teaching with the School of Education. Many of the participants had previously taken part in research, five had actually completed the pilot repertory grid work, two had taken part in the pilot interviews and a further six had been involved in observation prior to being approached to take part in the main study. The teachers were thus probably not typical of primary teachers, many being very experienced, holding positions of responsibility within the school and volunteering to supervise students. They were also unusual simply by volunteering to participate in the study. More schools and teachers had been approached and those who did participate were particularly keen, some also had a special interest in reading. Given that the Times

Educational Supplement reported an NUT survey of its members which found primary teachers working an average of 52 hours per week in term time, it may be considered surprising that so many did offer to give up their own time so generously. There was also very little participant attrition, all the participants completed Phase 1 and Phase 2 of the study, and 17 completed Phase 3. The participants had between 1 and 35 years of teaching experience with a mean of 14.4 years. They also covered the complete age range of KS1 and KS2, at least two teachers of every year group were included in the sample. There were 16 female and 4 male teachers, all were British with English as their first language.

4.4. Materials

4.4.1. The Background Questionnaire

The background questionnaire consisted of three sections, about the teacher, their class and the school. It was designed to gather the information which appears in full in appendix A. A copy of the background questionnaire appears in figure 4-1.

4.4.2. The Repertory Grid

The repertory grid was a blank grid with 12 elements, which were simply coded by number so that no child's name would appear, and with space for 12 constructs to be provided by the teacher. The triads to be used to elicit these constructs had already been randomly assigned and appeared on the grid. A copy of the blank repertory grid used in the main study appears in figure 4-2.

Figure 4-1 Background questionnaire used in the main study.

About your school

School

How many pupils attend your school?

What age groups attend your school?

nursery R Y1 Y2 Y3 Y4 Y5 Y6

How many classes are there?

How many teachers work at your school?
 full-time?
 part-time?

Have I got a copy of the prospectus?

Is there a reading policy statement?
 did you have any input in formulating it?
 are you happy with it?
 have I got a copy of it?

Does the school ever use reading tests?
 which reading tests?
 with what age groups?
 how often?

Do parents receive any guidance from the school about helping their child with reading?

About Your Class

What year(s) are your class?

Y1 Y2 Y3 Y4 Y5 Y6

How many children are there in your class?

Are they grouped?
on what basis?

Is there a whole school reading scheme?
do I have a copy of it?
do the children in your class follow this scheme?
how are books for the reading scheme organised?
how do the children choose their reading book?
how often do they take their reading book home with them?

What non-scheme books are available to children in the classroom?
how can they use them?

How are books kept and displayed in the school library?
when do the children have access to the library?
how do the children choose their library book?
how often do they take their library book home?

What reading records are kept by the school?
what information is recorded?
are they passed on to the next teacher?
who has access to them?

Have I got an example of reading records?

How often do you hear children read?

Do any children have extra help with reading at school?
If yes how many/who?
how were they identified?
what is the extra help?
how often?
who provides it?

How do you communicate with parents about children's reading?
are you happy with this?

About You

Male/Female

In what year did you qualify as a teacher?

What is your teaching qualification?

Certificate of Education BA/BSc plus PGCE BEd

Other, please specify

Have you recently attended any courses about language and literacy/

How many years of teaching experience do you have?

What age groups do you have experience of teaching?

nursery R Y1 Y2 Y3 Y4 Y5 Y6 secondary

What is your current position at the school?

Do you have any special responsibilities within the school?

Have you had another career outside teaching, or a break from your teaching career?

How do you anticipate your future career in teaching or outside teaching?

Name
School

Date

1st 2nd 3rd grid completed

Triad	1	Construct	1	2	3	4	5	6	7	8	9	10	11	12	Contrast	7
5 7 10																
2 4 9																
1 7 12																
3 6 8																
1 2 7																
3 4 12																
3 5 10																
6 10 11																
2 8 12																
5 9 11																
4 6 8																
1 9 11																

The most important similarity or difference between these children in terms of reading is

Figure 4-2 Blank repertory grid used in the main study.

4.4.3. The Reading Test

The reading test was not an integral part of the research and the choice of test was for pragmatic reasons rather than a commitment to any theory of reading professed by the test designers. It is not intended to discuss here the great difficulties involved in testing reading as others have dealt with these issues thoroughly elsewhere, for example Raban (1983). However, the requirements of a reading test for use in the study were difficult to meet. In order to test 240 children in a limited time period it must be a group administered test. It must be possible to administer it within a reasonably short time and in normal classroom conditions as children would be required to complete it within their normal school day. It should be suitable for use with the full ability range and the full age range of the children participating in the study, who were Year 1 to Year 6 pupils. One important consideration was which reading tests the schools were already using.

Brown and Pink Primary Schools were not currently using any reading test with all pupils, although this was under review at the time of the study. Brown Primary were carrying out trials with different reading tests in the 1994/5 academic year. Pink Primary School used the Burt Word Reading Test (Burt, 1976) with individual pupils with reading difficulties.

The Green, Yellow and Orange Primary Schools were using the NFER-NELSON Group Reading Test 6-12, formerly known as the Macmillan Group Reading Test (Macmillan Test Unit, 1985). Green Primary School gave the test to all pupils twice yearly in Year 3, 4 and 5. Yellow Primary School gave the test to all pupils in Year 3, 4 and 5 near the end of the Summer Term, and used the Burt Word Reading Test for diagnostic purposes with pupils having difficulty with reading. Orange Primary School gave the test to all pupils twice yearly in Year 2, 3, 4, 5 and 6. Any pupils scoring below the 80th percentile were also given the Burt Word Reading Test by the reading specialist. The NFER-NELSON Group Reading Test is untimed, although it is expected that most pupils will have fulfilled their potential within 30 minutes. The test consists of 48 multiple choice items; 5 picture word recognition items and 43 sentence completion items. It is designed for administration to a whole class in normal classroom conditions and is available in parallel forms A and B. It can be used with children with a reading age between 6 years 3 months and 13 years 3 months. It yields a standard score and a reading age. It was standardised in 1983 with some 7 500 pupils from five of the largest LEAs in England representing different regions.

This test is very widely used, the publishers claim it was administered to over 150 000 children in 1994 alone.

Red Primary School was using the Schonell Graded Word Reading Test (Schonell, 1955). It was given to all pupils in Year 3, 4, 5 and 6 once yearly at the beginning of the Autumn Term. The school also used the Burt Word Reading Test with some pupils who were struggling with reading. The Schonell test is an untimed individually administered test consisting of 100 words presented out of context in order of increasing difficulty. Revised norms were published by Schonell & Goodacre (1974). It is now rather out of date and consequently not very widely used, so that the school was considering changing the test at the time of the study.

Blue Primary School were using Young's Group Reading Test (Young, 1968, revised as the SPAR Reading Test Young, 1976) with all pupils at the end of Year 2, 3 and 4. Year 5 children completed a different test requested by the secondary school that they would go on to. The Young Group Reading Test is timed and can be administered in about 20 minutes. The test consists of 45 multiple choice items; 15 picture word recognition items and 30 sentence completion items. It is designed for administration in normal classroom conditions and is available in parallel forms A and B.

White Junior School were using the Primary Reading Test (France 1979, revised France 1981). It was administered to all pupils twice yearly in Year 3, 4, 5, and 6. The Primary Reading Test is untimed, although it is expected most pupils will have fulfilled their potential within 30 minutes. The test consists of 48 multiple choice items; 15 picture word recognition items and 30 sentence completion items. It is designed for administration to a whole class in normal classroom conditions. It can be used with children with a reading age between 5 years 9 months and 12 years 2 months. However, this range is achieved by having two overlapping levels with separate tests in the same format; Level 1 for 6-10 year olds and Level 2 for 7-12 year olds. It yields a standard score and a reading age. It was validated in 1977 and 1978 with more than 20 000 children. The test was revised and new parallel forms included in France (1981). It is also very widely used, the publishers claim it was administered to around 250 000 children in 1994 alone.

After considering all this information the NFER-NELSON Group Reading Test 6-12 was chosen as the most suitable for the purposes of the study. It has the widest age range of any single test. It is the most recently developed and standardised reading test in common usage. In actual fact the results of the test correlate very highly with the other tests used by the schools in the study, as demonstrated in the table below.

Table 4-1 Validity of the Group Reading Test 6-12.

"Validity of the GRT 6-12" taken from the Teacher's Guide to the GROUP READING TEST 6-12 © 1992 NFER-NELSON. Reproduced by permission of the publishers NFER-NELSON, Darville House, 2 Oxford Road East, Windsor SL4 1DF.

Number of pupils in the validity study	Year 2	Year 3	Year 4	Year 5	Year 6
Teacher's estimate	91	317	145	130	133
Schonell Graded Word Reading Test	.85	.78	.89	.76	.81
Young Group Reading Test	.85			.75	.75
Primary Reading Test	.65		.66		
		.78	.77		

The NFER-NELSON Group Reading Test was already being used by several of the schools in the study. By choosing this test it would not be necessary to disrupt the normal school practice by administering the test in those schools who already used it.

4.5. Procedure

All research was carried out by the author alone and all interviews were recorded on audio tape, excepting technical failures. Transcripts of examples of the interviews can be found in appendix H.

4.5.1. Phase 1 Procedure

Phase 1 was not actually the first contact between the participant and researcher in most cases as 13 of the participants had been previously involved in other work with the researcher. But in all cases at least one more day of participant observation was carried out. It was considered of paramount importance to win the trust of the participating teachers, no deception was used and at every stage of the research the aims were explained and the

participants' questions were answered. It may be useful to describe the participant observation in more detail. What precisely this consisted of varied enormously, but it was always stressed that I was happy to do whatever teachers would find useful. Some of this involved little contact with children, such as photocopying worksheets, covering books, assembling and mounting children's work, or putting up and taking down displays. More often it meant working with small groups of children. But most frequently I was sharing books with children. Teachers valued the one-to-one time I could give and appreciated that reading was my main interest in coming into schools. I did not want to take notes during this time as I felt this would be obtrusive, prevent me from participating interactively by making me an observer, and differentiate me from the ancillary staff, parents, students and volunteers that children were accustomed to having in their class. However, I did want to record these experiences, as I understood them, and so I did bring a notebook into school whenever I visited. I sometimes used this to make notes when free during breaks or after school, although most was written outside the school. These records are of course very limited and subjective, but do provide a vivid reminder for me of my experiences in schools. Although staff may have seen me writing, I was never questioned about my notes and no one else has had access to these private records.

4.5.1.1. Completing the Background Questionnaire

The background information questionnaire consisted of three sections, about the school, the class and the teacher as described in section 4.4.1. It took no more than 15 minutes to complete at any convenient moment before or after the grid elicitation.

4.5.1.2. Eliciting the first Repertory Grid

The first task was the random sample of 12 children as elements. Each child's name was written on a card which had already been assigned a coded number. The children were generally selected by writing down every second name in the register, in the case of a very large class nearer to 36 in number than 24, every third child was selected in this way. However this procedure was flexible and the teacher had ultimate control of the selection. Teachers were asked to exclude children from the sample on the following grounds:

- 1) If the child had not been present from the beginning of the academic year.

2) If they knew the child was going to leave the school permanently, or take extended leave, before the end of the current academic year.

Practically no children were actually excluded on these grounds, but there were other miscellaneous reasons that teachers occasionally perceived a child as unsuitable for inclusion in the research. Next the teachers were shown the blank grid and had a brief introduction to Personal Construct Psychology. It was explained that the 12 children are elements and that by comparing and contrasting them the teacher can generate dimensions that can be used to think about all the children. It seemed the easiest way to explain this was by demonstration, so the first three cards were picked out and the participant was asked if there was one important way in which two of them were similar to each other and at the same time different to the third that was something to do with reading. The participant was told that was the only limitation, the construct could be anything at all that is relevant to reading. If the teacher provided a similarity immediately they were asked to provide the difference. These formed the first construct and contrast, but they were then clarified by questioning to make sure the construct was explicit and had not been misinterpreted by the interviewer. After some discussion the clearest, briefest wording for the construct and contrast were agreed and written down by the researcher. If the teacher did not produce a similarity straight away, they were given time to consider this for a minute and then prompted with the following prompts:

“It can be anything at all that is to do with reading”

“It can be just one small aspect of their reading”

“Two children can be similar for different reasons”

A particularly effective prompt was to simply read back the constructs and contrasts that had already been written down along with similarities and differences that may have been mentioned but discarded by the teacher. Another prompt was:

“Is this difficult? Is it because they are all too similar or completely different?”

This prompt usually resulted in the teacher producing several constructs; the similarities all three share or the differences between them, and these could then be discussed and negotiated. Once the first construct had been clarified and the agreed form written down the rating scale was introduced and explained. They were asked to think of the construct as a 7 point bipolar dimension from construct to contrast where a rating of 1 is most like the construct and a rating of 7 most like the contrast, so a rating of 4 was at the midpoint. The teacher was then asked to arrange all the elements on this dimension, although they did not have to use all 7 ratings. When they had done this the interviewer checked that there were

7 points, even if not all were applied to the elements, and that the extremes of the scale were correctly matched with the construct and contrast. The ratings were then written on to the grid. After the first construct it was emphasised to the teacher that this was the only procedure, and that it would simply be repeated with different groups of three children. They were told that if they wished to use the same similarity again that was perfectly all right, they should just describe the most important or striking similarity in terms of reading. This procedure was repeated until 12 constructs were elicited in this manner. Finally, after completing the whole grid teachers were asked to identify their single most important construct. Every participant was heartily thanked for their time and effort, and any questions the participants had were answered as fully as possible as they arose. They were assured that in Phase 2 they would receive the results of the analysis of the repertory grid they had just completed.

4.5.2.Phase 2 Procedure

The second phase again involved spending at least a day with each teacher, usually in participant observation during contact time, and completing interviews during lunch hours and after school. The few teachers who had some non-contact time were kind enough to be interviewed during this time.

4.5.2.1.Repeating the Phase 1 Repertory Grid

After the completion of the repertory grid in Phase 1 the teachers' constructs had been typed up, creating a unique blank grid for each participant. Where there was any ambiguity about the constructs, the tape recording of the original elicitation was consulted. The teachers were each presented with their own blank grid and the same 12 element cards with children's names that they had used originally. If any child had left the teacher's class a note was made of this and, unless they had left very recently, they were excluded from the subsequent rating. The teacher was reminded of the repertory grid rating procedure and the rationale for this; that by assessing the same children with the same dimensions we can see how they have changed. When they had completed the ratings they were asked to identify their most important single construct again.

4.5.2.2. Feedback and Concept Mapping

As soon as possible after the completion of the repertory grid the participant was given the feedback from the grid they had originally produced in Phase 1. This consisted of the FOCUSED grid together with an explanatory sheet. Participants were given the opportunity to read this while the interviewer remained to answer any questions, but I believe the best way to explain the feedback is to consider the FOCUSED grid and that was attempted. A copy of the handout for participants which was attached to their FOCUSED grid is shown in figure 4-3.

Starting with the elements it was suggested the teacher wrote the children's actual names on to their personal copy of the grid. Explaining the results of the cluster analysis started with the element cluster highlighting the most similar children and the most different. The teachers were then asked whether they felt this was an accurate representation of the children in terms of their reading as they were in Phase 1. Following this discussion the teachers were asked to predict how the cluster pattern might have changed for the repertory grid they had just completed. Moving on to the construct cluster the most closely related and most dissimilar constructs were highlighted. In some cases the teacher spontaneously started to interpret the clusters, but more often they were asked by the interviewer to explain the relationship between apparently closely related constructs. The aim of these discussions was to reveal the teacher's interpretation of the construct clusters and the hierarchy of their construct systems.

Some laddering techniques were used to help clarify the superordinate and subordinate relationships between constructs. Personal Construct Psychology explicitly states that constructs are organised in a hierarchy, as the cluster analysis used here does also. To discover a superordinate construct the interviewer asks "why is this child x?", and the teacher might respond, "because they are y". The interviewer can pursue this by asking "why is the child y?", and the teacher might respond, "because they are z", and so on. Thus z is superordinate to y, which is superordinate to x. Each "why" response develops another superordinate connection in the construct hierarchy. To discover subordinate constructs the interviewer asks "how" questions, such as "how do you know z?", or "what is your evidence that they are y?", or "what do you mean by that?", thus uncovering more specific subordinate constructs. Another method used to try to understand the relationship between constructs is to ask for the implications of a close match between two or more constructs.

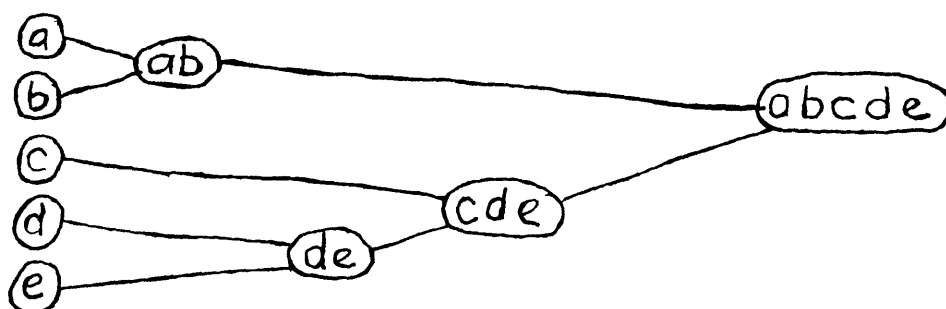
Reading Project

This is the result of the analysis of the repertory grid that you completed some time ago about 12 children in your class, and the similarities and differences in their reading you described.

The 12 children are only identified here by their code numbers, so now you might like to write their names on your copy of the grid so that you can identify them.

This diagram simply shows the grid you originally completed, but the children and the similarities and differences about reading have been rearranged. The children have been reordered so that the more similar two children are, the closer they are together. The dimensions you generated about reading have also been reordered in this way.

Also, if you look above and to the right of your rearranged grid you will see that two "tree diagrams" have been drawn from your grid. The one above describes the children, and the one to the left describes your dimensions about reading. These tree diagrams are a visual way to represent the result of cluster analysis. Cluster analysis is just a way of linking similar elements together into clusters. It can be applied to almost anything, in this case we are clustering children and your ideas about reading. An example of a tree diagram for 5 elements is shown below.



So the two elements which are most similar to each other in this example are a and b, then d and e are next most similar, and c is more similar to the d e cluster than to a and b. This kind of cluster analysis ultimately links all the elements in a single cluster. However, it is not usually very useful to do this, so you have to decide at what point to stop clustering. At the side of your tree diagrams is a scale which shows the percentage match between the clusters, and so is a measure of the degree of similarity. If two children are linked at the 100% level then, at least in the terms of their reading that you have specified, they are exactly the same.

Thank you very much for sharing your ideas with me, I hope we will have the opportunity to discuss this analysis so that I can answer any questions you may have. I hope you have found this interesting.

Hinkle (1965) developed a whole taxonomy of implication relationships because a construct hierarchy may not be a simple linear one as described above. To discover the direction of implication between two constructs the interviewer asks "If a child is x does it usually mean they are y as well?" and "If a child is y does it usually mean they are x as well?". Laddering and implication relationships were used as appropriate, but of course every participant is different. The teachers were asked whether they felt the cluster patterns were an accurate representation of the relationships between their ideas. Following on from this discussion teachers were asked to describe the connections of their constructs about reading and these were recorded in the form of a concept map by the interviewer. Finally the teachers were asked how they felt about their participation in the project and thanked again.

4.5.2.3.Semi-structured Interview on the National Curriculum

The subject was introduced by saying that so far only the teachers' own constructs had been discussed, but that it would be interesting to contrast them to the National Curriculum. Great care was taken to introduce the controversial subject in a way that could not be seen as threatening by the teacher in any way. If teachers did not feel they were sufficiently familiar with the new NC in English (which was actually very little different from the 1994/5 NC) the interview was terminated there. With those willing to do so, the aim was to ask the teacher to make their own evaluation of the NC as a framework for thinking about reading, and compare this with their own framework for thinking about reading, as recorded in the form of the repertory grid. They were asked to identify similarities between their constructs about reading and the NC. They were also asked to identify differences. If they did not they were prompted by the interviewer who highlighted themes mentioned by the teacher but not by the NC. Finally they were asked how useful they felt the NC had been generally, how representative of their own thinking it was and whether they agreed with its assumptions.

Where the school did not carry out reading tests or used a different reading test the NFER-NELSON Group Reading Test 6-12 was given to the 12 children who had formed the elements of the teachers' repertory grid. The reading test was administered in accordance with the recommendations of the teachers' handbook, but did vary from school to school. In some cases the teacher found it more convenient for the whole class to take the test,

while in others only the 12 children did. There were also several exclusions and absences. If the teacher felt the test was inappropriate and might distress a child, then their judgement was respected and it was not administered. Teachers excluded some Year 1 children thought to be too young, and some children with a statement of SEN. The absences were due to absence from school on the day of the test or where the child had previously left the teacher's class. The teachers were immediately given the results of the test which most found interesting or useful and any comments they made were recorded.

4.5.3.Phase 3 Procedure

The third phase took place in the Autumn Term of the academic year 1995/6. With the new academic year most of the participants had a new class but most had remained with the same age group.

4.5.3.1.Feedback

At beginning of the Autumn Term 1995/6 I wrote to each participant to send them the feedback from the grid they had produced in Phase 2. As previously this consisted of the FOCUSED form of the grid and an explanatory handout, and I also included the FOCUSED grid they had originally produced in Phase 1 so that they could compare them.

4.5.3.2.Eliciting a New Repertory Grid

This was done following exactly the same procedure as Phase 1.

4.5.3.3.Repeating the Phase 1 Repertory Grid

This involved selecting a sample of 12 new children and completing another blank repertory grid created in Phase 2.

4.6. Analysis of the Repertory Grids

The analysis of repertory grids is a very diverse field indeed due to the great variety that is possible in the form of grids and the even wider variety that is possible in their

interpretation. The goal of all grid analysis is to reveal pattern and structure in the grid responses. Of course the analysis will always depend on the purpose of the investigator in eliciting the grid. However, conventions and even specialised software have been developed to examine repertory grids that have been ranked or rated.

The grid data to be analysed was in the following format. Each participant had produced a 12x12 repertory grid rated on a scale from 1 to 7 in Phase 1 which was subsequently re-rated in Phase 2 with the same elements, and in Phase 3 with entirely new elements. Phase 3 also produced a new 12x12 repertory grid from all participants remaining in the study.

In this study the grids were analysed using Patrick Slater's Grid Analysis Package (from now on referred to as GAP) and Mildred L. G. Shaw's Rep Grid 2 software (from now on referred to as RG2).

4.6.1. Grid Analysis Package

Patrick Slater wrote several programs to analyse individual grids and compare pairs or larger number of grids while working as a statistician at St George's Hospital in London. The Medical Research Council supported the development of these programs with a grant between 1964 and 1976 but they have since become the property of the Department of Management Sciences, UMIST. The GAP suite of software incorporates several programs originally written by Patrick Slater including INGRID, DELTA, SERIES, ADELA, PREFAN and COIN. They are described in some detail in Slater (1977) and the GAP manual.

The latest version of the program for the individual analysis of grids; INGRIDA is based on a the calculation of a matrix of Spearman's correlations between the constructs. From this a principal components analysis is performed and many structural measures derived from the grid.

4.6.2. Rep Grid 2

Mildred L. G. Shaw wrote several programs to analyse grids at the Centre for the Study of Human Learning at Brunel University. The RG2 software includes later versions of some of

her earlier programs such as FOCUS, PEGASUS, MINUS, CORE, SOCIOGRIDS and ARGUS. They are described in some detail in Shaw (1980) and the Centre for Person-Computer Studies Rep Grid 2 Manual.

The individual analysis of grids is performed by the program FOCUS. The following description is based on the explanation Shaw (1980) gives of the program FOCUS. All clustering methods start with a matrix of similarities or distances between the elements of the data. Shaw argues that it is more appropriate to use the Minkowski city block metric than the more widely known Euclidean distance measure for repertory grids. The city block metric defines the distance between point i and point j in a matrix as

$$d_{ij} = \sum |a_{ik} - a_{jk}|$$

where a_{ik} is the cell on the i th row and j th column.

So, the distance between construct i and construct j can be calculated using this formula, where a_{ik} is the rating of element k on construct i . The distance between elements can also be calculated using this formula. Then the distance d_{ij} is scaled to give a percentage matching score between 0, which indicates no match, and 100, which indicates a perfect match. The transformation is

$$d_{ij} \rightarrow \frac{-100d_{ij}}{(n-1)c} + 100$$

where n is the maximum value of the rating scale,

c is the number of constructs if d_{ij} is the distance between constructs,
or the number of elements if d_{ij} is the distance between elements.

Shaw (1980) describes the cluster analysis algorithm as very similar to a hierarchical single linkage method. It is not strictly a hierarchical method, but it is more similar to that type than any other method of cluster analysis described by Everitt (1993). The results of the RG2 principal components analysis are identical to those produced by GAP.

5. Reliability and Validity of Repertory Grids

5.1. Introduction

Before reporting the results of the analysis of the repertory grids of the main study it is necessary to review the definitions of some of the measures derived from repertory grids, their reliability and validity, and the norms reported in previous research. The most recent publication concerning repertory grid reliability or validity; Feixas, Moliner, Monte, Mari & Neimeyer (1992), states that despite the proliferation of studies using repertory grid techniques there have been surprisingly few examining the reliability of measures derived from repertory grids:

whether grid indexes of conceptual structure are distinct and reliable, or whether subject characteristics (e.g. nationality and sex) or measurement characteristics (e.g. grid size) affect such scores have received surprisingly little attention in the Personal Construct literature

Feixas, Moliner, Monte, Mari & Neimeyer (1992) p. 25

Previous reliability studies have yielded conflicting results and addressed a wide variety of different aspects of grid reliability, making comparisons difficult. Because there have been so few studies of stability, reliability or validity a near exhaustive review is possible here.

5.2. Theoretical Issues

The theoretical issues involved in the assessment of the psychometric properties of repertory grids have been most thoroughly addressed by Richard C. Bell in a series of publications, for example Bell (1988, 1990a, 1990b). Bell (1990a) recognises the need to explore this area to establish whether repertory grid techniques can accurately reflect the mental structure and processes of the person. His caution to those investigating these properties is that reliability and validity are derived from classical test theory proposed for

mental test data which are unlike repertory grid data. Classical test theory, which originated with Spearman (1904), became most influential following Gulliksen (1950) and is expounded with most relevance to repertory grids in Cronbach et al (1972). The fundamental postulate of classical test theory is that

$$O = T + E$$

where

O is the observed score

T is the true score

E is the error component

In order to make this theory workable several assumptions must be invoked. It is assumed that the expected error component is zero, and it is assumed that the correlation between the true and error scores is zero. From these assumptions it is possible to derive several consequences; one such important consequence is the derivation of a correlation between the observed and true score. The square of this correlation is known as the reliability coefficient. Bell (1990a) stresses that it is important to distinguish between the reliability of grid data and the reliability of indices derived from the grid. Bell (1990a) states that where measures are derived from summations over the data in the grid it is possible to work within the framework of classical test theory. Any situation where scores are formed by summation is amenable to the computation of traditional measures of internal consistency, stability and reliability. Bell (1990a) observes that “such measures do not appear to be routinely computed” (p.94). This is reasonable criticism of much work using repertory grid techniques, but in the case of the present study these issues are addressed. Test-retest reliability has been investigated, first by Hunt (1951) and reviewed by Bannister & Mair (1968). Adams-Webber (1987) reviewed the test-retest reliability of self-other comparisons while Curry & Menasco (1980), Schneier (1979) and Menasco & Curry (1978) have examined the reliability of Bieri's measure of Cognitive Complexity. Bell (1990a) states that the test-retest reliability correlations reported do not differ much from those obtained for mental tests of comparable length. But test-retest correlations have the problem of confounding temporal stability and error of measurement. Heise (1969) suggested that the two components could be separated by taking measurements at three points in time, rather than two, and using path analysis to distinguish error of measurement from temporal stability.

Bell (1990a) goes on to suggest that latent trait theories (also known as item response theories) are more appropriate for assessing the reliability of actual grid data and discusses the theoretical difficulties involved with using various latent trait theories.

Turning his attention to validity Bell (1990a) states that theories about validity do not exist in the sense that theories about reliability do. Validity tends to be seen from philosophical perspectives. Bell (1990a) describes how the prevailing view of validity in a testing context until the 1950s focused on the prediction of some subsequent criterion. Multiple approaches to validity were promulgated in the American Psychological Association standard (1954) but more recently it has been argued (Cronbach 1980, Messick 1988) that multiple views of validity only represent different aspects of construct validity. It must be remembered that what is being validated is not the technique or test itself but rather the inferences made from test scores. For repertory grid techniques the validity is the validity of any inferences made about the person's psychological processes. This is complicated by the validity of any technique used to facilitate making such inferences. There are two types of intervening technique; measures derived from the grid like Cognitive Complexity, and various representations of the grid through principal components analysis or cluster analysis. These techniques require their validity to be established in addition to that of the grid (Bell 1988b). Bell (1990a) concludes that the concepts of reliability and validity are relevant to repertory grid techniques, not to the grid data but rather to the inferences drawn from grids. He recommends that research should focus more attention on the reliability and validity of these inferences. He observes that the psychometric evaluation of grids has always been statistical and questions whether this is appropriate for the evaluation of the reliability and validity of inferences drawn from repertory grids.

5.3. Measures of Grid Structure

5.3.1. Patterns of Construct Relationship

Bannister (1960) first proposed a Consistency Measure which was revised slightly by Bannister (1962) and more substantially by Bannister & Fransella (1966). He argued that a stable construct system is one where the relationship between the constructs remains unaffected when one set of elements is replaced by another. Where two sets of elements are evaluated with the same constructs by the same individual, it is a relatively straightforward matter to estimate the degree of stability in their pattern of construct relationships. In the present study for example, a teacher might see the constructs of effort and achievement as

highly correlated in their first grid. If this is a stable relationship the correlation will remain high when the teacher considers any sample of children. If however, when they come to consider a new sample of children there are some the teacher perceives as making great effort but with little achievement, then the correlation between these two constructs will be much lower in the new grid in Phase 3. Thus the relationship between the constructs of effort and achievement which appeared strong in the first grid has proved to be unstable.

The later version of Bannister's Consistency Measure can be calculated by:

- 1) Listing all the correlations between every pair of constructs.
- 2) Listing the construct correlations obtained in the second grid in the same order.
- 3) Performing a Spearman's rank order correlation between these two sets of correlations.

The Bannister's Consistency Measure can be calculated with any measure of association between constructs, not only correlations, as it is simply a Spearman's rank order correlation. It is essentially a test-retest reliability for the pattern of construct relationships. High scores indicate stable patterns of construct relationship.

Slater (1972) developed his Coefficient of Convergence to allow comparisons of construct relationships between grids in a wider variety of conditions. The grids to be compared must have the same constructs, but the elements may be different, indeed they may be different in number or even be scored differently. COIN calculates and lists the correlations and angular distances between the constructs in grid A, does the same for grid B, then lists the differences for B - A and concludes by giving the Coefficient for Convergence. NEW COIN accepts any number of grids for comparison and will produce a coefficient of convergence in the same way. Slater (1972) describing the Coefficient of Convergence stated that "In the conditions where Bannister's Measure can be applied it gives almost exactly equivalent results." (p.45). Slater (1972) supported this by citing personal correspondence from Garside and Van der Spuy concerning a study which produced a correlation between the two measures of $r=0.943$ with 46 children.

Fransella & Bannister (1977) report that it is a common finding with grids that different individuals show widely varying degrees of stability in their use of constructs. Further, that different populations show great differences in reliability. Research comparing the consistency of normal and clinical populations by Bannister (1960), Bannister (1962) and Bannister & Fransella (1966a) proved that these differences are sufficiently large and

reliable to use as diagnostic criteria. The Grid Test of Thought Disorder (Bannister & Fransella 1966b) can distinguish thought disordered schizophrenics from normal and other psychiatric populations on the basis of their consistency in patterns of construct relationships in an immediate test-retest. They have repeatedly demonstrated that normal and non thought disordered psychiatric populations have Bannister's Consistency scores between 0.6 and 0.8 while thought disordered populations have scores around 0.2.

5.3.2.Intensity

Kelly developed several general diagnostic constructs for describing construct systems. He coined the terms 'tight' and 'loose' to describe the extent to which constructs imply each other within a system. That is, where an individual rates an element on one construct, to what extent does that predict where they will place the same element on other constructs. Kelly stated that a loose construct system leads to varying predictions, and conversely, a tight construct system leads to unvarying predictions. So, for example, in a very tight system an element perceived as 'honest' might also be perceived as 'generous', 'kind', 'intelligent' and so on. A looser system might allow the possibility that honest people can be unkind or mean. Intensity is Bannister's (1960) operational definition of Kelly's construct of looseness or tightness. In Bannister's (1960) study of thought disordered schizophrenics he argued that there is a relationship between the size of the correlations/relationship scores obtained between constructs in a grid and this idea of tightness and looseness.

Intensity can be calculated by summing the correlations, or any relationship score between the constructs, using the formula

$$\sum r^2 \times 100$$

Intensity may look like a measure of cognitive complexity, as defined by Kelly's colleague and collaborator Bieri (1955). The definition given by Bieri, Atkins, Briar, Leaman, Miller & Tripodi (1966) of cognitive complexity is:

the capacity to construe social behaviour in a multidimensional way. A more cognitively complex person has available a more differentiated system of dimensions for perceiving others' behaviour than does a less cognitively complex individual.

Bieri et al (1966) p. 185

This suggests that the lower the Intensity, the more complex is the construct system. However, in this case thought disordered schizophrenics would be more complex than normal subjects. This paradox arises from the fact that randomness is the most mathematically complex pattern possible and thought disordered schizophrenics appear to complete grids in a random fashion. Therefore Intensity should not be considered alone but in conjunction with measures of consistency. Thought disordered schizophrenics would have very low Intensity but also very low consistency, while individuals with complex construct systems would have low Intensity but high consistency.

Figure 5-1 Grid Measure of Cognitive Complexity after Bieri et al (1966).

	1	2	3	4	5	6
Scale 1 Interesting						Dull
Scale 2 Independent						Dependent
Scale 3 Outgoing						Shy
Scale 4 Maladjusted						Adjusted
Scale 5 Self-absorbed						Interested in others
Scale 6 Decisive						Indecisive
Scale 7 Inconsiderate						Considerate
Scale 8 Ill humoured						Cheerful
Scale 9 Irresponsible						Responsible
Scale 10 Calm						Excitable

Cognitive Complexity has become field of research virtually independent of Personal Construct Psychology and it is not intended to discuss this here in depth. However, much

of the research into the reliability and validity of repertory grids has examined Bieri's form of the grid (Bieri et al 1966) devised to measure Cognitive Complexity. The Bieri form involves ten role types and ten provided bipolar constructs. The ten role types are rated on each of the constructs on a 6 point scale. The Cognitive Complexity score originally proposed by Bieri is calculated by comparing the element ratings for every pairing of constructs. Where they are identical a score of one is given, so the more identical ratings, the higher the Cognitive Complexity score. The Cognitive Complexity score can thus vary between 40 (very complex) and 450 (very simple).

Many other scoring methods have been devised. Bonarius (1965) mentions ten and Bavelas, Chan & Guthrie (1976) nine, but Bieri's original method of scoring remains the most widely used. Vannoy (1965) suggested modifying the Bieri form of the grid by randomly reversing half of the construct poles and changing the rating labels from numbers to left (L1, L2, L3) and right (R1, R2, R3). Vannoy's modifications are frequently adopted but with apparently little effect on the psychometric properties of the instrument. Vannoy (1965) reported a correlation of 0.64 between the modified and original grid forms.

Menasco & Curry (1978) reported an experimental study designed to examine the internal reliability and external validity of the Bieri form of the repertory grid developed to measure Cognitive Complexity (Bieri et al 1966) and adopting the modifications suggested by Vannoy (1965). The participants were 79 undergraduates at the University of Iowa who completed the Bieri form of the grid once only. Their grade point average (GPA), American College Testing (ACT) composite scores (COMP), and component scores in maths (MATH), social science (SOC) and natural science (SCI) were also recorded. The internal reliability of the instrument was assessed through an analysis of variance procedure suggested by Kerlinger (1964). Treating the responses for each element as an item measure the ANOVA procedure demonstrated moderate internal reliability $r=0.69$, $p<0.01$. The authors were interested in breaking down responses for the three elements with positive affect (1. Yourself, 6. Friend of the same sex, 7. Friend of the opposite sex) the three elements with negative affect (2. Person you dislike, 8. Person with whom you feel most uncomfortable, 9. Boss) and the four elements with undetermined affect (3. Mother, 4. Person you would like to help, 5. Father, 10. Person difficult to understand) and examining the internal reliability of these three subsets. For items with positive affect the internal

reliability coefficient $r=0.28$ was nonsignificant, for items with negative affect $r=0.74$, $p<0.01$, for items with undetermined affect $r=0.49$, $p<0.01$.

So it appears that elements with negative or undetermined affect are more reliable in measuring Cognitive Complexity. There was no evidence for order effects so boredom and fatigue were not significant. The external validity was assessed by calculating Pearson's correlations between the Cognitive Complexity scores from Bieri's grid and the GPA and ACT scores.

Table 5-1 Pearson's product moment correlation coefficients between Bieri's Cognitive Complexity score and ACT and GPA scores, from Menasco & Curry (1978).

	ACT COMP	ACT MATH	ACT SOC	ACT SCI	GPA
r	-0.33	-0.33	-0.19	-0.42	-0.25
p	<0.005	<0.005	<0.13	<0.001	<0.05

These scores were generally significant implying that the concept of Cognitive Complexity has some external validity. The exception of social science may imply that Cognitive Complexity is exhibited primarily in quantitative aptitudes. These results are consistent with Vannoy's (1965) factor analysis of the Bieri form of the grid and 19 other measures of cognitive traits. The Bieri Cognitive Complexity score did not load highly on Factor I while verbal abilities did, and the Bieri Cognitive Complexity score and quantitative abilities measure did load highly towards Factor II.

Menasco & Curry (1978) concluded that the Bieri et al (1966) repertory grid measure of Cognitive Complexity is moderately reliable. They suggested that reliability would be increased if only role types with negative affect were included, but no theoretical justification for such a modification was offered. The significant correlations with GPA and ACT scores indicate that Cognitive Complexity has external validity. Menasco & Curry further suggest that the significant correlation with the ACT component scores also indicate that the Bieri et al (1966) measure of Cognitive Complexity can distinguish between complex and simple thinking in physical and abstract domains in addition to social ones.

Schneier (1979) examined the psychometric properties of the Bieri et al (1966) form of the repertory grid developed to measure Cognitive Complexity and set out to establish norm tables. In this study Bieri's form of the grid, with and without Vannoy's modifications, was treated as a psychometric instrument and Cognitive Complexity as the score derived from it. Convergent validity was assessed by comparing Cognitive Complexity scores measured in three different ways. Bieri's measure of Cognitive Complexity was compared with Scott's (1962) group measure of Cognitive Complexity derived from information theory, and Fiedler's (1967) Least Preferred Co-worker (LPC) scale. Discriminant validity was assessed by correlating these measures of Cognitive Complexity with a variety of different psychological variables. These were Budner's (1962) Intolerance of Ambiguity scale and three subscales of the California Psychological Inventory CPI (Gough, 1957); psychological mindedness, flexibility and tolerance. Schneier (1979) hypothesised that more cognitively complex participants would be less intolerant of ambiguity, more psychologically minded, more flexible in their thought processes and more tolerant, being able to deal with inconsistent information.

The participants were separated for analysis into group A consisting of 114 manufacturing workers, group B of 55 managers and group C of 176 undergraduates. Sample A completed the modified and unmodified Bieri form of the grid, Scott's group measure of Cognitive Complexity and Fielder's LPC scale in counterbalanced order. A week later they completed the modified form of the grid again, followed by the CPI subscales and the intolerance of ambiguity instrument. Sample B and C simply completed the modified Bieri form of the grid. After 6 days 37 of the managers of group B completed this again.

The test-retest reliability for sample C was 0.54, $p < 0.001$ over 1 week, for the 37 managers from sample B it was 0.82, $p < 0.001$ over a 6 day interval. Convergent validity was demonstrated by the following correlations for Bieri's form of the grid with modifications reported for sample A.

Table 5-2 Correlations between Bieri's Cognitive Complexity score and other measures of Cognitive Complexity, from Schneier (1979).

Scott's (1962) group measure of Cognitive Complexity	-0.19*
Fiedler's (1967) LPC scale	-0.23*
Budner's (1962) Intolerance of Ambiguity	-0.03

CPI Psychological Mindedness	-0.07
CPI Flexibility	-0.20*
CPI Tolerance	-0.29**

* $p < 0.05$

** $p < 0.01$

The norm tables produced positively skewed distributions for all subject groups. The mean for sample C was significantly lower than the mean for sample B $t(288)=2.274$, $p < 0.025$ and sample C $t(129)=2.640$, $p < 0.005$.

Table 5-3 Mean Bieri's Cognitive Complexity score, from Schneier (1979).

	A	B	C
mean	93.91	95.76	89.43
SD	17.73	15.75	15.41

Schneier (1979) concluded that statistically significant test-retest reliability has been demonstrated for the very short intervals examined. Convergent validity was demonstrated by significant correlations with other measures of Cognitive Complexity. Norm tables showed positively skewed distributions at the lower (more complex) range of possible scores. Neither sex, occupation, college major nor level in an organisational hierarchy had a significant effect on Cognitive Complexity scores, suggesting the modified Bieri form of the grid can be used to measure Cognitive Complexity across diverse samples.

Curry & Menasco (1980) investigated the sampling distribution of Cognitive Complexity on the Bieri et al (1966) form of the grid. The calculation of sampling distributions is useful because it allows the researcher to compare a participant's score with that expected under chance, to make probability statements about the score or assign a confidence interval. The sampling distributions in this case were generated assuming that each cell in the test is completed "at random" each scale value having equal probability. Random grid completions were simulated in 1000 Monte Carlo runs to produce an empirical sampling distribution. When this distribution was compared with the theoretical prediction implied by the central limit theorem close match was found. The mean and variance were very close to theoretical expectations and the sampling distribution is nearly normal as expected.

observed

theoretical

mean	75.2	75.0
variance	64.6	62.5

The only caution is that while the normal distribution fits well overall, it fits poorly in the tails and is slightly positively skewed.

Because grids are infinitely flexible, there is no single thing that is ‘the reliability of the grid’, so it is very difficult to examine. With different populations, different domains, different elements and different constructs, the characteristics of the repertory grid must vary wildly. Bieri’s form of the grid, because it has become established and fixed, has allowed work on reliability to be carried out and replicated in a way that is often not possible. This work has shown that Bieri’s form of the grid is reasonably reliable, and can be used to measure individual differences in Cognitive Complexity. I would also argue that that it may be possible to generalise from Bieri’s form of the grid to other forms. The most important problem is that Bieri’s form of the grid uses provided constructs rather than elicited ones. As the uniqueness of each individual’s construct system was a central tenet of Personal Construct Psychology it would seem that this is the most important task facing those who work within this framework.

5.3.3.Review of Previous Results

The early empirical work such as that reported by Bavelas, Chan & Guthrie (1976) or Fransella & Bannister (1977) generally found rather low reliability for measures derived from grids. For example Fransella & Bannister (1977) stated that:

Intensity tends to have low reliability from test to re-test. For example in one study (Bannister 1962) the re-test correlation was 0.35. Exactly the same correlation was reported recently by Honess (1978) for Intensity in a rank order grid. Honess' subjects were children and the test re-test interval was four weeks.

Fransella & Bannister (1977) p. 84

This lead Jackson & Paunonen (1981) to write that the repertory grid was:

finally being scrutinised for its psychometric properties, with revealing but hardly encouraging results. It yields rather low internal consistency and test-retest

reliability over short periods, trivial convergent validity, massive method effects, and lack of independence among measures

Jackson & Paunonen (1981) p. 519

However, more recent studies have found a rather different pattern, and it is these studies which will be considered in more detail.

Emerson (1982) reported an experimental study which examined the relationship between element consistency and construct consistency and structural characteristics of an individual's construct system. The interest here in structural characteristics is particularly in construct intensity and construct constellatoriness.

Personal Construct Psychology does not specify the nature of change which can be expected in any individual's construct system. Hinkle's (1965) redefinition of the Choice Corollary does suggest that an individual will resist any change which results in a reduced range of implications. This predicts that there will be greater element consistency on constellatory constructs than propositional constructs because change involves more related changes. It also predicts that there will be greater resistance to the reconstrual of a constellatory construct than a propositional one so constellatory constructs will exhibit greater construct consistency.

In previous research Mair & Boyd (1967) have reported no difference in stability between high and low intensity constructs over 2 weeks. However, Ryle (1975) reported that the most stable constructs had significantly greater intensity scores, but only for dyad grids. Construct stability was unrelated to construct intensity over test-retest intervals of 12-20 months.

These results are very ambiguous and led Emerson (1982) to the formulation of the hypothesis that element and construct consistency would be higher for constructs with a wide implicative range than for constructs with a more restricted implicative range, and that participants with higher or lower Cognitive Complexity should be analysed separately.

Participants were 14 student nurses who completed a grid with 19 elements and up to 20 constructs produced by triadic elicitation. The elements were rated on the constructs using

a 7 point scale and this procedure was repeated after 7 months. The operational definition of construct Intensity was the sum of the squared correlation coefficient between the target construct and all others multiplied by ten. For each participant the five constructs with the highest and lowest construct intensity were selected. The operational definition of constellatory constructs were those five constructs for each participant with the highest loadings on the first extracted component of the principal component analysis. The propositional constructs were defined as those five constructs with the greatest residuals after the extraction of three components. Community for the selection of high Intensity/constellatory constructs was 88.2%, for low intensity/propositional constructs 63.6%. Such high community was expected as both selections are intended to assess the implicative range of constructs. The participants were separated into two equal groups of high or low Cognitive Complexity on the basis of the percentage of total variance accounted for by the first extracted component of the principal component analysis.

The examination of element consistency using the Wilcoxon test revealed that there was significantly greater consistency of rating for 2 of the 4 elements analysed on the constellatory constructs. There was significantly greater consistency of rating of 3 of the 4 elements analysed on the high intensity constructs. The examination of construct consistency using the Wilcoxon test revealed that there was significantly greater construct consistency for constellatory constructs and the high intensity constructs. The separate analysis of the more or less cognitively complex groups did not indicate any trends inconsistent with the combined groups results.

Emerson (1982) concluded that these results are consistent with the predictions derived from Hinkle's (1965) reformulation of Personal Construct Psychology. The constructs with wider implicative range, constellatory constructs or those with higher construct intensity, demonstrated greater element and construct consistency over a 7 month test-retest interval. However it should be noted that the sample was extremely small, the statistical analysis somewhat unorthodox and incomplete and the operational definitions questionable. Thus these findings of great stability, and greater stability for constructs with wider implicative ranges should be interpreted with some caution.

Feixas et al (1992) carried out the largest and most recent experimental study relevant to the present study as it examined most of the structural measures derived from repertory

grids which have been reported in previous research. The reliability and convergence of the following measures of cognitive structure are the subject of the study:

Intensity (Fransella & Bannister 1977) As defined above this is the sum of the Pearson correlations between all constructs multiplied by 100. Higher scores indicate greater conceptual integration, lower scores indicate greater differentiation.

Percentage Variance Accounted for by the First Factor (PVAFF) (Jones, 1954 and O'Keefe & Sypher 1981) The percentage variance attributed to the first extracted factor of a principal component analysis of the grid data. Another index of cognitive differentiation, greater scores again indicate conceptual integration while lower scores indicate greater complexity.

Cognitive Complexity (Bieri 1955) As defined above this is calculated as the number of perfect matches in ratings of elements on each pair of construct dimensions divided by the maximum possible score that could be obtained from a grid that size. Another index of differentiation, lower scores again indicate greater complexity.

Ordination (Landfield & Cannell 1988) A measure of the superordinate/subordinate status of constructs. It is computed by multiplying the number of different rating values used on a construct by the difference between the highest and lowest ratings. The total ordination score is the mean of these values for all the constructs in the grid.

Extremity of Ratings (Bonarius 1977) The percentage of the most extreme ratings in the grid matrix.

Self-Ideal Discrepancy (Neimeyer 1985) The Euclidean distance between the self and ideal self elements on the grid.

Self-Other Discrepancy (Jones 1961) The mean Euclidean distance between the self and all other elements on the grid.

Two structural measures of stability were also calculated:

Bannister's Measure of Consistency (Fransella & Bannister 1977) The consistency in the relationship between constructs.

Factor Loading Consistency (FLC) A new measure devised for this study to provide an index of the stability of factor structure for successive grids. The score consists of the Spearman correlation between the rank ordering of the elements according to their loading on a given factor of the principal component analysis on different occasions. It provides an estimate of the stability of the latent structure of the grid from one testing to another.

The participants were 82 undergraduate psychology students, of whom 56 were from Memphis State University and 26 from the University of Barcelona and of whom 53 were female and 29 male. They were randomly assigned to complete either a small grid with 6 elements and 8 triadic elicited constructs, or a larger grid with 8 elements and 12 elicited constructs using a 7 point rating scale. They were asked to complete the same grid again 1 hour, 1 week and 1 month later although not all participants completed the later grids. The test-retest reliability of every structural measure was calculated and repeated measures ANOVAs performed to assess whether scores changed systematically over time. The intercorrelations between measures were also calculated to discover evidence of convergent and discriminant validity. Finally ANOVAs were calculated to determine whether the scores on the structural measures varied with the size of grid completed or participant characteristics gender and nationality.

Pearson's correlations among the structural measures of the grid revealed that there was a significant relationship between Intensity and Cognitive Complexity, but rather surprisingly not between PVAFF and either of the other measures of conceptual differentiation. Feixas et al concluded that this provides some evidence of concurrent validity for the former measures but left interpretation of PVAFF unclear.

The results of the calculation of test-retest reliability are shown in the table below and allowed (Feixas et al 1992) to conclude that "several of the measures were robust enough to support their use as relatively enduring individual difference variables in future research." (p.31).

Table 5-4 Test-retest reliability for structural measures derived from repertory grids, from Feixas et al (1992).

	1 hour	1 week	1 month
	(n=81)	(n=78)	(n=61)
Intensity	0.95	0.95	0.94
PVAFF	0.61*	0.72	0.67
Cognitive Complexity	0.87	0.89	0.80
Ordination	0.71	0.73	0.59
Extremity of Ratings	0.89	0.83	0.71

Self-Ideal Discrepancy	0.92	0.88	0.78
Self-Other Discrepancy	0.94	0.89	0.85

* $p < 0.01$. For all other correlations $p < 0.001$

The measures of how consistent the relationships between constructs were at different testing times provided more evidence of stability. They were moderately high at all three retest times, and they were significantly correlated, mean $r = 0.28$, $p < 0.05$.

Table 5-5 Means from Feixas et al (1992).

	1 hour		1 week		1 month	
	(n=81)		(n=78)		(n=61)	
	mean	SD	mean	SD	mean	SD
Construct Consistency	0.70	0.24	0.67	0.21	0.64	0.24
Factor Loading Consistency	0.70	0.38	0.63	0.47	0.63	0.45

There was some evidence from the repeated measures ANOVAs to support Neimeyer's (1988b) suggestion that serial administration of repertory grids will produce a systematic tightening effect where constructs become more closely correlated. All the measures of cognitive integration; Intensity, PVAFF and Cognitive Complexity, revealed a significant trend in this direction. For all other structural measures the direction of change was ambiguous or the changes nonsignificant.

The examination of structural measures as a function of grid size, gender and nationality revealed some gender and nationality effects, but the variable which had the most impact was the size of the grid. Feixas et al found that the larger grids tended to produce smaller PVAFF and greater Cognitive Complexity. Larger grids produced more flexible, less extreme ratings with greater self-other discrepancy and greater self-ideal self discrepancy.

However, Neimeyer (1985) and Yorke (1989) have questioned whether such traditional measures derived from repertory grids are the most appropriate way to investigate the structural relationship between constructs, which Kelly (1955) states is hierarchical with constructs in superordinate and subordinate relationships to each other. Dempsey & Neimeyer (1995) point out that Hinkle's (1965) implications for change grid does allow direct comparisons between constructs, and so could provide a better method to evaluate

personal construct system structure than the repertory grid. Dempsey & Neimeyer (1995) found that only two studies had reported a comparison of implications grids with repertory grids, to examine convergent validity. Honess (1978) had found a correlation while Metzler & Neimeyer (1988) had found no relationship between the number of implications of a construct and the variance it accounted for in the repertory grid. However, Dempsey & Neimeyer (1995) argue that these results should be interpreted with caution as both used provided rather than elicited constructs.

Therefore Dempsey & Neimeyer (1995) set out to examine the criticisms of Yorke by asking 36 participants to complete both a 10x10 repertory grid with traditional role types and elicited constructs rated on a 13 point Likert type scale, and an implications grid using the same elicited constructs. Their analysis of the repertory grids and implications grids allowed Dempsey & Neimeyer (1995) to state that “these two contrasting methodologies showed impressive convergence” (p.259). They found that the PVAFF was significantly correlated with the total number of implications in the grid, $r=0.83$, $p<0.001$. They also found the greater the number of implications for any given construct, the greater the root-mean-square correlation (a measure of the relatedness of a construct to all the other constructs calculated by GPACK Bell, 1990b) for that construct. They also found the mean correlation between reciprocal implicative constructs was significantly higher than the mean correlation between unidirectional implicative constructs, which was still significantly higher than the mean correlation between unrelated constructs. Dempsey & Neimeyer (1995) concluded that these results clearly refute the criticism of the repertory grid as a measure of hierarchical structure, and support the assumption of repertory grid techniques that a statistical correlation between constructs represents an actual psychological one.

5.4. Reliability and Validity in a Limited Domain

The studies reviewed in the previous section 5.3.3. all concern grids close to Kelly's original purpose of recording individuals' theories of personality. They all use similar role types as elements and triadic elicitation of constructs not confined to any domain. However, the present study of teacher thinking about children reading uses repertory grid techniques in a far narrower domain.

It is worth examining a study by Neimeyer & Moore (1989) in some detail because of the parallels to the current study; it focuses on construing within a very limited domain, and it describes a very detailed assessment of validity and reliability. The paper concerns a psychometric instrument for measuring death anxiety, the Threat Index, a widely used measure of the threat implied by one's personal death. The Threat Index (TI) was developed in response to criticism of projective tests and questionnaires with only face validity. More recent studies have employed questionnaires, avoiding the problematic measurement of unconscious fear of death but such standardised instruments may not assess the personal meaning of death to individuals. The authors assert that these criticisms are fuelled by the finding that the most commonly used questionnaire in the literature; Templer's Death Anxiety Scale (DAS, Templer 1970) tends to be contaminated by social desirability response set (Martin 1982, McMordie 1978, Dattel & Neimeyer 1990) and displays low internal consistency (Schell & Zinger 1984, Warren & Chopra 1978). Further, factor analytic studies have failed to replicate an underlying structure (Martin 1982, Devins 1976).

The TI is grounded in Personal Construct Psychology. Kelly referred to our most central dimension of meaning as core constructs. When our core constructs are challenged we experience threat, defined by Kelly (1955) as "the awareness of an imminent comprehensive change in one's core role structures" (p.489). Kelly cites death as the prototypical example of a threatening event as most individuals perceive it as bringing great changes to their core constructs. Death will pose a different degree of threat to various individuals as some may see it as being more compatible with the meaning of their lives than others. The TI was adapted by Krieger, Epting & Leitner (1974) from Kelly's repertory grid technique. The procedure is described in detail in the Threat Index Manual (Neimeyer, Epting & Rigdon 1984) but essentially consists of the triadic elicitation of thirty bipolar constructs from an individual and the placement of three elements on these constructs. The triads consist of cards containing a brief description of a situation, such as "your best friend is killed in a plane crash", and a card simply stating "death" which is included in every triad. The elements are self, ideal self and own death and respondents are required to place each of these elements at the construct pole with which they see it as most closely associated. Death threat is indicated by the extent to which the respondent places self and death elements in polar opposition on their personal constructs. The greater the proportion of such splits, the greater their death threat is considered to be. No structural measures are

derived from the grid because it is designed to yield only this measure of death threat anxiety.

A series of studies Krieger, Epting & Leitner (1974), Krieger, Epting & Hays (1979) and Neimeyer, Dingemans & Epting (1977) were conducted to examine the reliability and validity of the Threat Index instrument. Over a test-retest period of three weeks Krieger, Epting & Leitner (1974), reported a test-retest correlation of 0.73 ($n=12$) and 0.82 ($n=32$) and a split-half reliability of 0.93 ($n=13$) and 0.80 ($n=32$). The TI demonstrated convergent and discriminant validity unconfounded by social desirability response bias and construct validity in that individuals with fewer splits on the TI were better able to conceive of their own death. The constructs elicited seemed more meaningful to the individuals than standardised questionnaires.

However, the interview form of the TI described above is very time consuming to complete as it takes 60-90 minutes per person being individually administered. Therefore Krieger, Epting & Hayes (1979) developed a self-administered form of the TI with provided rather than elicited constructs drawn from the most popular constructs from the original interviews. Placement of the self, ideal self and death elements on these constructs and the calculation of splits remained the same as in the original interview form of the TI. This reduced the length of administration to 15-30 minutes and eliminated the need for a trained interviewer, permitting group administration. This has made this form of the TI very popular with researchers and it is the second most frequently used measure of death anxiety in the published literature in the last ten years (Neimeyer 1988a).

A new adaptation of the TI, the Death Attitude Rep Test (DART) was developed in order to regain the idiographic elicitation of individual's constructs like the interview form of the TI while maintaining the advantages of the group administered form of the TI. It involves the paired elicitation of 15 constructs from 15 elements, which are again situations involving death, and the subsequent rating of these situations on a 13 point Likert scale from -6 to +6. Pilot work investigating structural measures derived from these grids is mentioned but no data for test-retest reliability or validity of the DART is reported.

To summarise, the TI demonstrates that it is possible to use repertory grid techniques in a very limited domain, even with elicited constructs, although this is very time consuming to

administer individually. Most importantly it demonstrates that repertory grid techniques can demonstrate reliability and validity in a limited domain. This is crucial to the present study because none of the reliability and validity studies discussed so far have examined personal constructs in a limited domain. Unfortunately, because the TI does not use any structural measures derived from the grid there are no data on the reliability or validity of such measures. However, such data will be available from the present study.

5.5. Conclusion

The reliability and validity of measures derived from the repertory grid are deemed by Bell (1990a) to be theoretically suitable for conventional statistical analysis, and empirically demonstrated by Feixas et al (1992) to have test-retest reliability of an order acceptable in psychometric testing over limited time intervals. Therefore this analysis was carried out with the data from the present study and the results are reported in the following chapter. However, the issue of confounding reliability with stability is crucial in interpreting these findings.

6. Results

6.1. Introduction

The longitudinal procedure of the main study described in chapter 4 yielded a vast amount of data. The results are separated here so that the analysis and interpretation of grid structure is described in section 6.2. The analysis of the content of the grid constructs is described in section 6.3. and the analysis of teachers' concept maps and the National Curriculum interviews are described in section 6.4. and section 6.5. respectively.

6.2. Analysis of Grid Structure

6.2.1. Patterns of Construct Relationship

To establish whether the same constructs were being used in the same way at the different phases of the project Slater's Coefficient of Convergence was calculated using NEW COIN and the results appear in the table below.

Table 6-1 Coefficient of Convergence for each participant in the main study.

	Coefficient of Convergence		Year Group of Elements	
	Phase 1 with Phase 2	Phase 1 with Phase 2 and 3	Phase 1	Phase 3
Miss GM T1	0.752		Y1	
Miss GA T9	0.802	0.836	Y4	Y4
Mrs BS T2	0.871	0.621	Y3	Y3
Mrs BB T3	0.800	0.869	Y2	Y2
Miss RS T4	0.963	0.729	Y3	Y3
Mr RT T5	0.604	0.678	Y4	Y4
Miss RR T6	0.970		Y5	

Mrs RP T7	0.933	0.920	Y1/2	Y2
Miss VP T8	0.953		Y4	
Mrs YN T10	0.829	0.790	Y2	Y2
Mr YW T11	0.666 *	0.750 *	Y3	Y3
Mr WP T12	0.779 **	0.597 **	Y5	Y5
Mrs WB T13	0.905 **	0.766 **	Y6	Y3
Mrs WT T14	0.904 **	0.537 **	Y3/4	Y6
Miss PT T15	0.611	0.541	Y4	Y4
Miss PC T16	0.951	0.957	Y2	Y2
Mr PP T17	0.985	0.985	Y6	Y6
Mrs OC T18	0.841	0.695	Y5	Y4
Mrs OW T19	0.766	0.651	Y2	Y2
Mrs OT T20	0.910	0.911	Y1	Y1

* In the Phase 1 grid the teacher decided 2 constructs were not applicable to 3 children. As the grids cannot be analysed with any missing data these 6 N/A ratings were substituted for 7 7 7 1 1 1.

** In Phase 2 several children had left the school making it impossible to rate them so they were omitted from the analysis. Mr WP and Mrs WB had lost one element while Mrs WT had lost two.

The mean Coefficient of Convergence between Phase 1 and Phase 2, a test-retest interval of approximately 6 months, was 0.84 SD 0.12. The mean Coefficient of Convergence between Phase 1, Phase 2 and Phase 3, a test-retest interval of approximately 12 months, was 0.77 SD 0.14. This demonstrates remarkably high consistency in the teachers' use of their constructs although there is also some great individual variation. Some of the lowest figures occur where the participant has changed to teaching a different Year group. It was certainly the case that participants reported that the constructs they had used to think about children of one age group were simply not applicable to children of a different age. This led to many constructs being rated N/A or not differentiating between any of the elements, so effectively eliminating them from the analysis. The greatest decreases between 6 months and 12 months are shown by the teachers at White Junior School. In this period the school experienced great changes in their provision and organisation for reading which made it impossible to use previously elicited constructs in Phase 3. Thus some of the Coefficients of Convergence between Phase 1, Phase 2 and Phase 3 are really a false representation underestimating the true consistency in teachers' thinking and should perhaps be ignored. The Coefficients of Convergence between Phase 1 and Phase 2 however suffer none of

these complications and can be understood as the test-retest reliability of the teachers' use of their own constructs.

Feixas et al (1992) reported mean construct consistency after 1 month of 0.64, so from the results of the present study teachers as a population appear to be particularly reliable in their thinking. However some caution must be used in interpreting these consistency measures.

Where as Feixas et al (1992) were examining individual's thinking about personality the present study was restricted to the very narrow domain of thinking about reading.

Therefore the extremely high consistency in the pattern of construct relationships may be an artifice of the task rather than a characteristic of the population.

6.2.2.Intensity

The measure of cognitive complexity Intensity was calculated by GAP INGRIDA from the correlations between constructs, as described in the previous chapter, and the results are summarised in the table below.

Table 6-2 Intensity score for each grid completed by the participants at every phase of the main study.

	Phase 1	Phase 2	Phase 3	Phase 3 new grid
Miss GM T1	33.23	28.21		
Miss GA T9	27.87	18.36	23.46	20.19
Mrs BS T2	34.06	32.25	48.70	33.19
Mrs BB T3	43.79	37.39	48.04	43.22
Miss RS T4	43.66	50.89	54.12	44.10
Mr RT T5	36.70	30.54	48.20	47.09
Miss RR T6	46.11	39.52		
Mrs RP T7	33.41	39.43	48.66	48.24
Miss VP T8	46.84	40.28		
Mrs YN T10	30.23	25.88	28.57	26.68
Mr YW T11	37.59 *	22.69	33.14	24.92
Mr WP T12	12.64	17.04	7.05	17.88
Mrs WB T13	33.00	35.10	33.22	32.97

Mrs WT T14	22.16	22.98	5.88	22.40
Miss PT T15	22.65	21.28	11.12	12.08
Miss PC T16	44.07	44.39	47.75	40.81
Mr PP T17	52.85	59.01	60.18	45.98
Mrs OC T18	21.60	24.51	21.96	13.42
Mrs OW T19	18.92	22.18	32.07	21.91
Mrs OT T20	33.23	35.19	34.58	28.58

* In the Phase 1 grid the teacher decided 2 constructs were not applicable to 3 children. As the grids cannot be analysed with any missing data these 6 N/A ratings were substituted for 7 7 7 1 1 1.

Table 6-3 Mean Intensity for all participants by phase of the main study.

	Mean	Standard Deviation	N
Phase 1	33.73	10.61	20
Phase 2	32.36	11.16	20
Phase 3	34.51	16.65	17
Phase 3 new	30.80	12.19	17

A one-way repeated measures ANOVA found that there were no significant differences between the means for different phases as $F(3, 48)=1.34$, $p=0.273$. However, there were considerable differences in Intensity scores between individuals at every phase. In order to establish whether these differences were characteristic of the individual or random the Pearson's correlation between the Intensity scores of each individual at every phase was calculated.

Table 6-4 The Pearson correlation coefficient for Intensity scores at the different phases of the main study.

	Phase 1	Phase 2	Phase 3
Phase 2	0.8538 (20) $p=0.000$		
Phase 3	0.8691 (17) $p=0.000$	0.8345 (17) $p=0.000$	
Phase 3 new	0.8114 (17) $p=0.000$	0.8124 (17) $p=0.000$	0.8847 (17) $p=0.000$

The extremely high and significant correlations for Intensity over 6 month and 12 month intervals appear to suggest that Intensity is a stable characteristic of the individual's construing in this domain. Feixas et al (1992) previously found a mean correlation of 0.94 for Intensity over a 1 month test-retest interval. It might be anticipated that the longer the interval the lower the test-retest reliability, therefore a correlation of 0.8114, $p < 0.001$ obtained for Intensity over a test-retest interval of approximately 12 months would appear congruent with previous findings.

6.2.3. Principal Components Analysis

Both GAP and RG2 perform an identical PCA, but all the results given below were produced with the GAP program INGRIDA.

Table 6-5 Results of Principal Component Analysis from the main study by teacher and phase.

		Percentage variance accounted for by component					
		I	II	III	IV	V	VI
Miss GM T1	1	71.26	18.50	5.16	1.95	1.02	0.88
	2	71.00	15.91	6.16	6.16	3.17	2.15
Miss GA T9	1	65.44	24.97	4.10	2.93	1.18	0.61
	2	45.12	33.50	9.77	6.81	2.63	1.32
	3	69.67	16.83	6.53	4.01	1.34	0.72
	3new	53.08	18.87	16.34	6.65	2.37	1.08
Mrs BS T2	1	77.03	12.60	4.68	2.50	1.54	0.69
	2	74.45	16.88	4.13	2.01	1.26	0.55
	3	88.21	5.32	2.82	1.84	0.82	0.47
	3new	72.71	12.05	6.56	3.93	2.38	1.29
Mrs BB T3	1	83.91	6.28	4.30	3.34	0.91	0.53
	2	87.91	5.35	4.09	1.03	0.80	0.48
	3	88.60	5.56	3.42	0.84	0.69	0.57
	3new	82.81	12.51	3.09	0.60	0.39	0.25
Miss RS T4	1	81.57	6.90	5.25	2.53	2.15	0.88
	2	86.93	8.50	1.61	1.40	0.71	0.41
	3	92.00	4.13	1.53	0.85	0.60	0.57

	3new	84.89	6.85	3.01	2.47	1.17	0.78
Mr RT T5	1	77.68	13.18	2.92	2.17	1.53	1.12
	2	65.73	24.52	6.03	1.88	1.20	0.41
	3	87.64	6.77	1.82	1.44	1.31	0.77
	3new	85.70	6.25	3.94	1.46	1.26	0.83
Miss RR T6	1	84.69	6.16	3.08	2.79	1.22	1.08
	2	81.72	10.65	4.48	1.48	0.69	0.46
Mrs RP T7	1	74.53	13.65	6.52	2.78	1.15	0.69
	2	80.58	10.96	4.52	3.03	0.53	0.21
	3	93.85	2.79	1.26	0.87	0.48	0.33
	3new	85.80	6.17	3.82	1.60	1.03	0.66
Miss VP T8	1	85.56	6.79	2.93	1.62	1.48	0.98
	2	80.49	9.59	5.14	2.58	1.23	0.51
Mrs YN T10	1	68.67	13.14	9.28	3.68	2.84	1.17
	2	71.81	17.96	6.17	2.31	1.04	0.60
	3	75.92	8.86	8.85	3.39	1.53	0.91
	3new	67.07	14.24	5.98	4.63	2.95	2.29
Mr YW T11	1	82.37	9.52	4.16	2.42	0.68	0.39
	2	70.94	16.85	5.39	3.75	2.10	0.70
	3	80.32	9.36	5.35	2.66	1.49	0.40
	3new	67.59	15.00	7.84	3.48	2.87	1.44
Mr WP T12	1	35.52	28.50	14.49	12.39	4.01	2.50
	2	49.04	20.66	14.24	7.02	4.41	1.94
	3	51.63	28.54	11.07	6.40	1.92	0.26
	3new	64.02	18.77	6.98	5.46	2.26	1.48
Mrs WB T13	1	70.37	17.80	4.92	2.40	2.20	1.13
	2	79.84	11.89	5.02	1.56	1.02	0.41
	3	93.04	3.20	1.89	0.84	0.45	0.26
	3new	71.29	11.27	7.71	4.78	1.75	1.52
Mrs WT T14	1	59.65	16.78	8.67	6.97	4.10	1.86
	2	57.45	19.77	13.82	3.67	3.09	1.47
	3	40.06	34.84	14.52	6.29	3.46	0.59
	3new	48.78	35.08	9.28	2.37	1.64	1.11

Miss PT T15	1	64.23	15.01	8.04	4.31	3.95	2.23
	2	67.60	20.74	3.93	3.12	1.98	1.53
	3	50.54	23.42	9.98	7.04	4.38	2.05
	3new	45.46	21.49	15.56	8.62	3.80	3.19
Miss PC T16	1	83.63	6.50	4.20	2.48	1.64	0.56
	2	83.11	8.79	4.00	2.06	0.83	0.73
	3	87.75	6.49	2.98	1.78	0.58	0.26
	3new	79.17	8.98	6.07	3.16	1.14	0.88
Mr PP T17	1	91.71	2.74	2.47	1.38	0.74	0.40
	2	94.98	1.76	1.26	0.89	0.63	0.21
	3	95.72	1.92	1.09	0.62	0.42	0.23
	3new	83.87	9.55	4.37	1.12	0.78	0.19
Mrs OC T18	1	46.07	38.48	8.69	2.66	1.99	1.37
	2	57.64	25.54	9.05	5.18	1.77	0.54
	3	69.31	16.30	8.44	3.36	1.24	0.84
	3new	47.62	26.05	9.91	5.50	5.04	2.54
Mrs OW T19	1	56.25	17.95	11.74	6.99	4.02	1.21
	2	61.48	16.78	7.87	7.26	2.55	2.04
	3	73.35	11.81	8.16	3.38	1.56	1.14
	3new	60.45	16.19	9.31	5.94	4.80	2.03
Mrs OT T20	1	73.10	11.70	9.90	2.00	1.13	0.84
	2	75.27	11.06	7.58	2.68	1.22	0.79
	3	76.29	12.45	5.85	3.40	0.83	0.51
	3new	73.29	14.51	4.89	3.99	1.34	1.00

The most striking feature of these results is the very high the proportion of the variance that the first component accounts for. Slater (1977) does suggest that it is usual for just a few components, “sometimes one sometimes two, seldom more than three, to account for a very large proportion of the total” (p.101) and this is definitely the case here. The percentage of variance accounted for by the first factor of principal component analysis (PVAFF) for the participants as a group are shown in the table below.

Table 6-6 Mean percentage variance accounted for by the first component for all participants in the main study.

	Mean	Standard Deviation	N
Phase 1	71.66	14.13	20
Phase 2	72.15	13.14	20
Phase 3	77.29	16.68	17
Phase 3 new	69.04	14.02	17

A one-way repeated measures ANOVA found that the difference in these means was significant $F(3, 48)=4.34, p=0.009$. Posthoc analysis using the Tukey test revealed that only the PVAFF in Phase 3 was significantly higher than the PVAFF in the new Phase 3 grid. If the Phase 3 grid is considered as an aberration from an otherwise stable mean, it leads us to question why this should be so. It is possible that the reason for the discrepancy in the Phase 3 grids was that many participants found it difficult to apply their previous constructs to different children, especially where the age of the children was very different. Because the Phase 3 grids were rated after the new grid had been elicited they were also not completed with the same thought and attention as the previous grids. All these factors would tend to increase duplication or stereotyping in responses leading to a higher Intensity and a higher percentage of the variance being accounted for by the first component of any PCA.

An alternative perspective is to view the results as a trend with PVAFF increasing after each grid completion but dropping suddenly in the new Phase 3 grid. Neimeyer (1988) has argued that the process of completing repertory grids leads to greater conceptual integration, so that later grids will generally have higher PVAFF. The hypothesis that serial completion of repertory grids produces a systematic 'tightening' effect has been confirmed by Feixas et al (1992) who found this was a significant trend for PVAFF and several other measures of cognitive differentiation across repeated grid administration. Although this effect is clear it remains open to question whether it is really possible that the simple completion of a repertory grid can cause more cognitive change than teaching experience. If so it could have profound implications for teachers' professional development, implying as it does that experience alone does not bring about such a magnitude of change in teacher thinking as does critical reflection on this experience. However, I would suggest the lower PVAFF for the new grid is compelling evidence that this is not the case. I believe the

repeated completion of the grid leads to higher conceptual integration in that grid, but this does not appear to be transferable to other grids, let alone wider thinking about reading.

What is clear is that in all phases the proportion of the variance accounted for by the first component is extremely high. This suggests that although teachers provided a wide variety of constructs, they are using them in such a similar way that the constructs do not distinguish between the elements. Such cases, where all the constructs imply all other constructs, are known as constellatory systems. They are very simple systems being more or less unidimensional.

However, there are great individual differences in the extent to which this can be claimed for the teachers' construct systems. Some are more complex in structure than others. The question again arises whether these differences in structure are characteristic of the individual or random. In order to address this question the Pearson's correlation between the percentage of the variance accounted for by the first component was at every phase was calculated. The results are shown below in the table below.

Table 6-7 Pearson's correlation coefficient for variance at the different phases of the main study.

	Phase 1	Phase 2	Phase 3
Phase 2	0.8214 (20) p=0.000		
Phase 3	0.7332 (17) p=0.001	0.7450 (17) p=0.001	
Phase 3 new	0.7002 (17) p=0.002	0.7462 (17) p=0.001	0.8362 (17) p=0.000

This demonstrates that like Intensity, to which of course it is closely related, the proportion of the variance accounted for by the first component is a stable characteristic of the individual. However, previous researchers have not always reported such high test-retest reliability for PVAFF as was the case for Intensity. Feixas et al (1992) found a mean correlation of 0.67 for PVAFF over a 1 month test-retest interval.

To examine how closely related Intensity and PVAFF really are a Pearson's correlation

between the two measures was calculated for each phase of the research project. The results are shown in table 6-8 and suggest that the measures are so closely related that they could be used interchangeably, although the PVAFF has the advantage of being an absolute measure independent of grid size and perhaps more easily understood by those unfamiliar with repertory grid techniques. Previous work by Feixas et al (1992) failed to find a significant correlation between Intensity and PVAFF, for which they could offer no explanation. As there are good a priori theoretical reasons for believing Intensity and PVAFF should both tap cognitive complexity, it might now be suggested that the finding of the present study is likely to be replicable.

Table 6-8 Pearson's correlation coefficient for Intensity and PVAFF at the different phases of the main study.

	r	p	N
Phase 1	0.9489	0.000	20
Phase 2	0.8936	0.000	20
Phase 3	0.9357	0.000	17
Phase 3 new	0.9460	0.000	17

6.2.4. Reading Test Results

The results of the NFER-Nelson Group Reading Test provided additional data which could prove most interesting in interpreting the participants' repertory grid data. Reading tests were not completed by all the children used as elements by teachers in the study. All Year 1 pupils and some Year 2 pupils were considered by their teacher to be too young to complete the test as they would find it too difficult and this judgement was respected. Further, where testing was carried out by the author rather than the school any child absent on the day of testing was unable to complete the test. The results of the reading test are shown in the table below by school.

Table 6-9 Standard Score Results of the NFER-Nelson Group Reading Test 6-12 by school.

	Mean	Standard Deviation	N
Green	99.63	19.53	12
Blue	98.55	14.25	22

Red	103.00	16.46	33
Violet	102.33	22.15	12
Yellow	114.50	8.31	12
White *	81.55	10.99	11
Pink	88.71	15.64	21
Orange	103.83	14.66	23
Total	99.40	17.37	146

* The standardised score used from White Junior School was from the Primary Reading Test (France, 1981). This also sets a mean of 100 and a standard deviation of 15 so the results are equally useful.

Although most of the school averages are based on a very small sample striking differences are apparent. When all the results available are summed the mean and standard deviation is comparable to the that of the national population which would be mean 100, SD 15.00. This confirms that the sample of schools are reasonably representative of the national school population at least in terms of their reading achievement on a standardised test. A one-way between subjects ANOVA revealed the differences in the means were significant $F(7, 138)=5.5707, p=0.0000$. Posthoc analysis using the Tukey test revealed that the White Junior School mean was significantly lower than the Green, Red, Yellow and Orange School means. Also that the Pink Primary School's mean was significantly lower than the Red, Yellow and Orange Primary School means.

The variance accounted for by the first component of the PCA was generally so high that it suggests many participants had a constellatory construct system and could be using one superordinate construct to think about the children's reading. Examining the content of many constructs participants provided, and the discussion generated through the process of construct elicitation, the hypothesis was formed that the most important aspect of the first component for many teachers would be achievement in reading. The reading test results provide a reasonably objective measure of achievement. Thus the hypothesis may be tested by correlating the element loadings on the first component of the PCA with the standardised score provided by the reading test results. The reading tests were carried out during Phase 2 of the project and so the results of the PCA of the Phase 2 grids were used for this comparison. In most cases the reading test and the grid completion were carried out within days of each other. The results of the correlation are shown in the table below.

Table 6-10 Pearson product moment correlation between NFER-Nelson standardised score and element loading on the components of PCA.

	First Component		Second Component		N
	variance	correlation	variance	correlation	
Miss GA T9	45.12	-0.8009 p=0.002	33.50	0.4902 p=0.106	12
Mrs BS T2	74.45	0.8756 p=0.000	16.88	0.0273 p=0.937	11
Mrs BB T3	87.91	0.5020 p=0.116	5.35		11
Miss RS T4	86.93	0.9159 p=0.001	8.50	0.0382 p=0.922	9
Mr RT T5	65.73	0.7552 p=0.005	24.52	-0.3193 p=0.312	12
Miss RR T6	81.72	-0.5936 p=0.042	10.65	-0.0168 p=0.922	12
Miss VP T8	80.49	0.8798 p=0.000	9.59	0.3803 p=0.223	12
Mr YW T11	70.94	0.8203 p=0.001	16.85	0.2633 p=0.408	12
Mr WP T12 *	49.05	-0.7739 p=0.005	20.66	0.4212 p=0.197	11
Miss PT T15	67.60	-0.9179 p=0.000	20.74	-0.4046 p=0.246	10
Mr PP T17	94.98	0.7709 p=0.005	1.76		11
Mrs OC T18	57.64	-0.5071 p=0.092	25.54	-0.4140 p=0.181	12
Mrs OW T19	61.48	0.9401 p=0.000	16.78	0.0250 p=0.942	11

* The standardised score used from White Junior School was from the Primary Reading Test (France, 1981). This also sets a mean of 100 and a standard deviation of 15 so the results are equally useful.

High positive and high negative correlations both indicate a strong relationship, a positive

correlation occurs when the construct was high reading achievement and the contrast low reading achievement, and a negative correlation occurs if they were reversed. For those participants where reading test data was available there is generally a very strong relationship with the first component. Only with Mrs BB T3 and Mrs OC T18 did the relationship fail to reach significance. This suggests strongly that the first component may be interpreted as an achievement construct in most cases. With such large proportions of the variance accounted for by the first component, this adds further weight to the suggestion that many teachers' construct systems may be very simple indeed. However, interpretation of the second component of PCA requires closer examination of the constructs that load onto that component. An individual case study of some of the teachers' thinking could clarify this. It might be particularly interesting to examine Mrs BB T3 and Mrs OC T18 in more detail as their construct system appears more complex, or at least their principal component is less open to interpretation as a simple achievement construct.

Generally these correlations are very comparable to the correlation between teachers' estimate of reading ability and NFER-Nelson GRT 6-12 results in the validity study reported in the test manual. In the validity study teachers were asked to rate their pupils' reading achievement on a scale of A to E, and told that in a normal distribution there would be 5% at grade A, 25% at B, 40% at C, 25% at D and 5% at E. When compared with the reading test results the teachers' estimates produced correlation coefficients from 0.76 to 0.89 for Year 2 to Year 6 pupils.

6.2.4.1. Case Study of Interpretation of Principal Components Analysis

Because the first factor of the principal component analysis for Mrs BB T3 and Mrs OC T18 was not readily interpretable as an achievement construct, they seemed good candidates for a case study of interpretation. Mrs BB T3 had 88% of variance explained by the first factor while Mrs OC T18 had 58% so it was decided to seek to interpret the more complex PCA of Mrs OC T18 in more depth.

Mrs OC T18 qualified in 1974 with the Certificate of Education and had 20 years of teaching experience. During this time she had spent 9 years with the Literacy Support service. She had taken part in the pilot interviews, see section 3.2. for an account of the

interview with Mrs OC P18. In 1994/5 she had responsibility for a class of 34 Year 5 pupils, as well as being Language curriculum co-ordinator and SEN co-ordinator and undertaking a review of the school reading policy and resources. She was committed to a career in teaching and did not anticipate leaving the profession.

The constructs as they appear in the repertory grid completed on 21 June 1995 were as follows. The construct is given first and the contrast follows in italics.

Mrs OC T18 Phase 2 Constructs

- A1 avid readers who are happy to tackle more challenging texts
 less confident readers, reading below the level they are capable of
- B2 acknowledge punctuation when reading aloud
 need help to acknowledge punctuation
- C3 very enthusiastic readers
 reluctant to read
- D4 do not receive extra help with reading
 receive extra help with reading
- E5 read for meaning
 don't always understand what is read
- F6 prefer reading fiction
 enjoy reading non-fiction
- G7 fluent readers who can read polysyllabic words
 less fluent readers who need help to read polysyllabic words
- H8 reading is supported at home
 no obvious support from home with reading
- I9 use a range of reading cues appropriately
 need help to use reading cues appropriately
- J10 very well motivated towards reading
 need to be motivated
- K11 not receiving extra help with reading
 receiving extra help with reading
- L12 no established reading habit

Mrs OC T18 said the most important similarity or difference between these children in terms of their reading is establishing the reading habit to develop stamina and fluency at this stage, later it may be less important.

Mrs OC T18 Phase 2 PCA

There are many conventions for making a decision about how many of the components of a PCA are significant. One of the simplest is to only consider components whose eigenvalues exceed unity. In this case Mrs OC has three components which need to be interpreted as component III is just above this value.

Table 6-11 Mrs OC T18 Phase 2 PCA Component I

	Component I 57.64%		
construct	vector	loading	residual
A1	0.3523	6.1100	2.6679
B2	0.0317	0.5500	0.6142
C3	0.3385	5.8700	5.7931
D4	0.1955	3.3900	48.5079
E5	0.2589	4.4900	24.0899
F6	0.1419	2.4600	64.9484
G7	0.2526	4.3800	8.8156
H8	0.3887	6.7400	11.5724
I9	0.0640	1.1100	0.4346
J10	0.4417	7.6600	3.3244
K11	0.1955	3.3900	48.5079
L12	-0.4273	-7.4100	1.7586

The highest loading construct for component I is J10, which is about motivation towards reading. The second highest loading construct, L12 concerns establishing a regular reading habit. The third highest loading construct is H8, which is about reading support at home.

Although many constructs load towards component I it appears that it could be interpreted as a component about attitude towards reading, which does explain why the correlation with the NFER-Nelson GRT scores are not significant $p=0.092$.

Table 6-12 Mrs OC T18 Phase 2 PCA Component II

	Component II 25.54%		
construct	vector	loading	residual
A1	-0.0329	-0.3800	2.5235
B2	0.0424	0.4900	0.3741
C3	-0.1204	-1.3900	3.8610
D4	0.5613	6.4800	6.5175
E5	0.0702	0.8100	23.4338
F6	-0.5215	-6.0200	28.7080
G7	0.1005	1.1600	7.4700
H8	-0.2365	-2.7300	4.1195
I9	0.0078	0.0900	0.4265
J10	-0.0944	-1.0900	2.1363
K11	0.5613	6.4800	6.5175
L12	0.0113	0.1300	1.7417

Component II of Mrs OC's PCA accounts for an unusually high proportion of the variance at 25.54%. The highest loading constructs on component II are D4 and K11, which are about extra help with reading. The second highest loading construct is F6, which is about preferences for fiction or non-fiction. Therefore the second component is somewhat difficult to interpret. If it were tentatively interpreted as concerning needing extra help with reading this would appear to be distinct from achievement in reading for this teacher as this component does not correlate significantly with the NFER-Nelson GRT scores either, $p=0.181$.

Table 6-13 Mrs OC T18 Phase 2 PCA Component III

	Component III 9.05%		
construct	vector	loading	residual
A1	0.0073	0.0500	2.5210

B2	-0.0058	-0.0400	0.3725
C3	0.1237	0.8500	3.1385
D4	-0.3696	-2.5400	0.0659
E5	0.3579	2.4600	17.3822
F6	-0.7129	-4.9000	4.6980
G7	0.2313	1.5900	4.9419
H8	-0.0640	-0.4400	3.9259
I9	0.0160	0.1100	0.4144
J10	0.0436	0.3000	2.0465
K11	-0.3696	-2.5400	0.0659
L12	-0.1266	-0.8700	0.9848

Very few constructs load towards component III which only accounts for 9.05% of the variance. The highest loading construct is F6, which is about preferences for fiction or non-fiction, and the second highest are D4 and K11 again, which are about needing extra help with reading. The fourth highest loading construct is E5 which is about reading for meaning. None of the other constructs have similarly high loadings and so this component is very difficult to interpret.

In conclusion it would seem that the first component of Mrs OC's PCA is about motivation or attitude towards reading. This is uncharacteristic of most teachers in the sample whose first component was about achievement in reading. I find this interpretation strongly supported by my own informal observations and the beliefs Mrs OC P18 expressed during the pilot interview. She clearly advocated a whole language approach to the teaching of reading with an emphasis on enjoyment of literature.

6.3. Content of Elicited Constructs

The high correlation between standardised reading test scores and the first component of PCA convincingly suggested that the first component can be interpreted as the teachers' assessment of achievement in reading in most cases. Performing a simple content analysis of the actual construct and contrast statements elicited from teachers would provide an alternative route to the interpretation of teachers' construct systems. The coding scheme developed in the pilot repertory grid study and described in section 3.3.3.2. was used to

categorise every elicited construct and contrast which the teachers provided. Data were available from 20 teachers for Phase 1 and 17 teachers for Phase 3 which produced 444 constructs and 444 contrasts which were coded separately resulting in a total of 888 coded statements. The 5 major divisions of the coding scheme; Achievement, Motivation, Strategies, Pre-requisites for success in reading and an Other category were used to code constructs which did not fit into any of the specific subcategories, resulting in 24 coding categories in total. The results are shown in the table below.

Table 6-14 Results of content coding.

A Achievement	Total	441	49.7%
general achievement not classified below		159	17.9%
a 1 performance reading aloud		83	9.3%
a 2 reading comprehension		47	5.3%
a 3 support received with reading through school		20	2.3%
a 4 achievement fulfilling potential, or underachieving		4	0.5%
a 5 rate of progress with reading		34	3.8%
a 6 independence in selecting reading materials		28	3.2%
a 7 confidence		66	7.4%
B Motivation	Total	110	12.4%
general motivation not classified below		76	8.6%
b 1 intrinsic		6	0.7%
b 2 needing encouragement		2	0.2%
b 3 preferences for reading material		26	2.9%
C Strategies	Total	86	9.7%
general strategies not classified below		36	4.1%
c 1 phonic cues		33	3.7%
c 2 sight vocabulary		15	1.7%
c 3 picture cues		2	0.2%
D Pre-requisites for success in reading	Total	138	15.5%
pre-requisites not classified below		2	0.2%
d 1 parental support		70	7.9%

d 2	English language proficiency and vocabulary	18	2.0%
d 3	concentration	32	3.6%
d 4	effort	16	1.8%
E Other	Total	113	12.7%
	other not classified below	91	10.2%
e 1	SEN	10	1.1%
e 2	reading limits access to the curriculum	12	1.4%
	Total	888	

The content coding revealed that general achievement constructs form the largest single category, with all achievement categories together accounting for 49.7% of all constructs. This appears to confirm the interpretation of teachers' construct systems as dominated by achievement. However, it also allows the richness of teacher thinking to be revealed in the statement of personal constructs, which are not just about achievement but also reading aloud, comprehension, support from the school, rate of progress, independence in selecting reading materials and confidence. The relatively low incidence of pre-requisite categories (accounting for a total of 15.5%) and strategies categories (accounting for a total of 9.7%) indicates the scant attention given to the results of research on reading. As discussed extensively in chapter 2 the most important and stable results in reading research have been in these areas. Perhaps this disparity is not really surprising given that it is the professional role of teachers to teach the child, rather than to teach reading.

At this point some examples may be illuminating. Every statement can be traced back to the individual teacher by the teacher number and then the construct number, for example, the first statement under Achievement "T4 F6" was elicited from Miss RS T4 at Red Primary School (see appendix A for a full description) and was recorded as the 6th construct in the elicitation (see appendix J for the complete repertory grid). The constructs are shown in normal type and the contrasts are shown in italics, exactly as they appear in the FOCUSED grids in appendix J. All these examples are drawn from the constructs and contrasts elicited in Phase 1 which are listed in full in by coding category in appendix L.

A Achievement

T4 H8 higher achievement in reading	<i>T4 H8 lower achievement in reading</i>
T5 D4 struggling readers	<i>T5 D4 very capable readers</i>
T6 D4 lower reading age	<i>T6 D4 high reading age</i>
T7 E5 good readers	<i>T7 E5 less good readers generally</i>
T9 B2 lacking ability	<i>T9 B2 more able</i>
T10 B2 not so developed in their reading	<i>T10 B2 very fluent readers</i>
T16 B2 only just beginning reading	<i>T16 B2 higher reading ability</i>

a 1 performance reading aloud

T6 B2 read aloud with very little expression	<i>T6 B2 read with far more feeling and expression</i>
T17 H8 very expressive reading aloud	<i>T17 H8 reading aloud more mechanical</i>

a 2 reading comprehension

T2 G7 better at comprehension	<i>T2 G7 not so good at comprehension</i>
T8 H8 poorer comprehension	<i>T8 H8 good comprehension of what is read</i>

a 3 support received with reading through school

T12 C3 not currently receiving reading support	<i>T12 C3 receive reading support</i>
T16 K11 have extra help with reading	<i>T16 K11 don't have extra help with reading</i>

a 4 achievement fulfilling potential, or underachieving

No Phase 1 constructs were coded using this category, but examples elicited in Phase 3 follow:

T13 L12 making the effort to achieve their potential	<i>T13 L12 not fulfilling their potential</i>
T17 K11 achieving their potential	<i>T17 K11 not yet achieving their potential</i>

a 5 rate of progress with reading

T11 J10 making rapid progress	<i>T11 J10 rate of progress has levelled off</i>
T15 J10 made a lot of progress this year	<i>T15 J10 not made very much progress</i>

a 6 independence in selecting reading materials

T4 C3 choose books at an appropriate level	<i>T4 C3 can't choose books at an appropriate level</i>
T11 H8 reading is self-regulated	<i>T11 H8 reading within the school reading plan</i>

a 7 confidence

T7 G7 very confident readers	<i>T7 G7 lacking confidence in their own ability</i>
T12 E5 more confident in reading to an audience	<i>T12 E5 less confidence in reading to an audience</i>

B Motivation

T2 L12 very enthusiastic	<i>T2 L12 less well motivated</i>
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T3 L12 more motivated

T3 L12 less motivated

T5 F6 not enthusiastic about reading

T5 F6 very enthusiastic readers

T8 G7 less enthusiastic about reading

T8 G7 very enthusiastic about reading

T10 D4 reluctant to read

T10 D4 very keen to read

T16 D4 no interest in reading

T16 D4 enjoy reading

T18 C3 reluctant to read

T18 C3 very enthusiastic readers

b 1 intrinsic

T6 E5 have self-motivation for reading

T13 D4 very good at reading to themselves

b 2 needing encouragement

T13 D4 need to read to someone because they need the feedback and encouragement

T18 J10 need to be motivated

b 3 preferences for reading material

T8 D4 only read school books

T8 D4 read beyond school books

T18 F6 enjoys reading non-fiction

T18 F6 prefer reading fiction

C Strategies

T1 E5 have less skills and practice in skills

T1 E5 have had a lot more input on skills resulting in better skills and confidence

T2 K11 can use a wider range of strategies

T5 G7 need a lot of prompting to attempt decoding

T5 G7 have strategies for decoding unknown words

T7 H8 find it easier to learn new words

T7 H8 find it difficult to learn new words

T13 B2 confidently using many reading cues

T13 B2 still learning reading strategies

T17 I9 comprehensive range of skills to approach new words

T17 I9 lack word attack skills for unknown words

T18 I9 need help to use reading cues appropriately

T18 I9 use a range of reading cues appropriately

c 1 phonic cues

T7 L12 more confident with sounds and blends

T7 L12 unsure of initial sounds

T20 G7 find it very difficult to use phonic cues

T20 G7 can use phonic cues in reading

c 2 sight vocabulary

T2 C3 very good sight vocab

T2 C3 very limited sight vocab

T19 J10 very poor memory for word patterns

T19 J10 large sight vocab

c 3 picture cues

T20 C3 still rely on picture cues in reading

T20 C3 read from the text

D Pre-requisites for success in reading

T1 F6 reluctance due to inappropriateness of task

T1 F6 reading tasks are appropriate and within their capabilities

d 1 parental support

T1 K11 there isn't so much parental support

T1 K11 there is a lot of parental support at home

T3 E5 get a lot of home support

T3 E5 get less home support

T4 I9 read more frequently at home

T4 I9 read less frequently at home

T9 G7 lack of parental time to listen to reading

T9 G7 spend a lot of time reading to parents

T14 K11 parents are negative about the child

T14 K11 positive parental input generally

T16 L12 not supported with reading at home

T16 L12 parental support with reading

T18 H8 no obvious support from home with reading

T18 H8 reading supported at home

d 2 English language proficiency and vocabulary

T8 C3 has a very limited vocab

T8 C3 can learn and use new vocab from their reading

T15 E5 lack of English vocab creates difficulty in reading in context

T15 E5 English proficiency and vocab are excellent and they can use this in reading

d 3 concentration

T9 K11 can't concentrate on reading

T9 K11 concentration span for reading is a lot longer

T20 J10 very poor concentration

T20 J10 good concentration on reading

d 4 effort

T13 J10 need a lot of pushing to put the effort in

T13 J10 put a lot of effort into their reading

T16 I9 little interest or effort, not much reading outside school

T16 I9 try very hard with reading

E Other

T3 I9 take good care of reading books

T3 I9 don't look after reading books

T4 B2 able to transfer book knowledge to written work

T4 B2 less able to transfer knowledge from books to written work

T11 E5 always complete their reading diary

T11 E5 reluctant to complete their reading diary

T12 B2 have cross-age reading partners

T12 B2 don't have cross age-reading partners

T15 L12 would never offer to help another child

T15 L12 in a mixed ability reading group would help another child struggling

T19 K11 more willing to predict what will happen

T19 K11 reluctant to predict when reading

next in a story

T20 B2 ambitious to read more exciting material; *T20 B2 steady approach to reading*
 impatient to get on to the next level

e 1 SEN

T8 J10 specific difficulty with reading and writing *T8 J10 no specific problems*

T16 E5 have specific problems which affect reading *T16 E5 no specific problems which affect reading*

e 2 reading limits access to the curriculum

T8 L12 difficulty with reading limits access to the *T8 L12 reading doesn't limit their access to the rest of*
 rest of the curriculum *the curriculum*

T19 C3 can't use their reading skills across *T19 C3 can read anything and understand written*
 the curriculum *instructions*

However, there may be problems with the coding scheme itself. The very low frequency of certain subcategories compared with relatively high frequencies of the general categories may indicate that the coding scheme should be revised for future use. The high number of constructs classified as 'other' may be also be due to inadequacies of the coding scheme as much as the idiographic nature of teachers' constructs. Careful examination suggests that many of these 'other' statements are concerned with the social behaviour or personality of the child in a reading context. Again, perhaps this is unsurprising as it indicates the teachers' concern with the whole child rather than with theories of the reading process or the development of reading.

Another criticism of these results is that all coding was carried out by the author and so no measure of inter-rater reliability exists. Sometimes the decision as to which classification to use was very difficult, for example when a single statement appeared to contain elements of more than one coding category, such as Mr YW T12's Phase 1 construct "T12 E5 more confident in reading to an audience" and contrast "T12 E5 less confidence in reading to an audience". There are arguments for classifying this as a1 performance reading aloud, or a7 confidence, and in this instance the latter was used, but another rater might have made a different decision. In order to make this process more transparent all Phase 1 constructs and contrasts (480 in total, 12 constructs plus 12 contrasts for each of 20 teachers) are listed under the coding category by which they were classified in appendix L. The reader is invited to examine them for internal consistency and consider possible revisions of the coding scheme for future use.

6.3.1. Stability of Elicited Constructs

A fundamental question in repertory grid research is whether constructs elicited are likely to be a representative and stable sample of the participants thinking, or drawn randomly from an almost infinite pool of possible constructs. The first investigation of this aspect of reliability was carried out very early in the history of Personal Construct Psychology by Kelly's colleague David E. Hunt. Hunt (1951) used two sets of twenty carefully balanced elements. Participants completed at least forty triadic sorts to elicit constructs. Hunt developed a technique for determining the equivalence of constructs as used by the participant. He used two different sets of 20 elements, carefully balanced to be equivalent, and asked participants to perform 40 sorts first with one set of elements, then one week later with the other. He found 69% agreement SD 6 among psychiatric patients and 70% agreement SD 8 among college students over a one week test-retest interval. The agreement in terms of the number of sorts involving the same constructs was even higher. The constructs which were used on both occasions tended to be used on more different sorts than the constructs which were only used on one occasion.

Fjeld & Landfield (1961) repeated Hunt's experiment and found that, given the same elements, there was a 0.80 correlation between the elicited constructs over a two week test-retest interval. Sperlinger (1976) used a modification of Landfield's (1971) categorisation system for constructs and found a 58% agreement between elicited constructs over a seven month test-retest interval, although wide individual differences were reported.

In the research project reported here constructs were elicited from participants only in Phase 1 and Phase 3. Thus it is possible to compare the stability of elicited constructs for only 17 of the 20 participants with a test-retest interval of approximately 12 months. The construct coding described above provided a categorisation system which permitted this comparison.

The construct and contrast statements of the 17 teachers at Phase 1 and Phase 3 had already been categorised. The total number of statements for each of the 24 coding categories were summed and the Pearson's correlation between the totals at Phase 1 and Phase 3 calculated. Pearson's product moment correlation coefficient was 0.9411, $p=0.000$ which suggests that

the themes of this group of teachers collectively were very stable over the 12 month period, regardless of the differences between the children they were considering.

The coded construct and contrast statements of the 17 teachers were also totalled for each individual at Phase 1 and Phase 3. The Pearson's product moment correlation coefficient between these totals at Phase 1 and Phase 3 was then calculated. The results are shown in the table below.

Table 6-15 Pearson's correlation coefficient between Phase 1 and Phase 3 construct and contrast statements by teacher.

	Pearson's r	p	Phase 1	Phase 3
Miss GM T1			Y1	
Miss GA T9	0.7455	0.000	Y4	Y4
Mrs BS T2	0.3651	0.079	Y3	Y3
Mrs BB T3	0.2357	0.268	Y2	Y2
Miss RS T4	0.6268	0.001	Y3	Y3
Mr RT T5	0.5000	0.013	Y4	Y4
Miss RR T6			Y5	
Mrs RP T7	0.4020	0.051	Y1/2	Y2
Miss VP T8			Y4	
Mrs YN T10	0.6047	0.002	Y2	Y2
Mr YW T11	0.5244	0.009	Y3	Y3
Mr WP T12	0.4677	0.021	Y5	Y5
Mrs WB T13	0.1818	0.395	Y6	Y3
Mrs WT T14	0.7807	0.000	Y3/4	Y6
Miss PT T15	0.4743	0.019	Y4	Y4
Miss PC T16	0.6963	0.000	Y2	Y2
Mr PP T17	0.1325	0.537	Y6	Y6
Mrs OC T18	0.4339	0.034	Y5	Y4
Mrs OW T19	0.4629	0.023	Y2	Y2
Mrs OT T20	0.6682	0.000	Y1	Y1

The mean correlation between the individual teachers' totals for the 24 coding categories at Phase 1 and Phase 3 was 0.4884, SD 0.1892. For 4 of the 17 teachers who completed

Phase 3 this correlation failed to reach significance at the 0.05 level. These teachers were Mrs BS T2, Mrs BB T3, Mrs WB T13 and Mr RP 17. This indicates less stability in elicited constructs than previously reported by Hunt (1951, Fjeld & Landfield (1961) and Sperlinger (1976), but over a far longer time period. The possibility that this relatively low individual stability could be attributed to changes in the Year group taught was considered as the pilot repertory grid studies described in section 3.3.3.2. found some differences in themes between the teachers of different Year groups. However, closer examination of table 6-15 reveals that 4 teachers experienced a change in Year group, and only one of these, Mrs WB T13, failed to reach significance in the correlation of their construct content over the 12 month interval. Therefore it can be concluded that a change in Year group taught was not associated with less stability in construct content for these teachers. Compared with the correlation for the group as a whole the mean individual correlation is low. It could be speculated that there is a pool of constructs available to all teachers, and while an individual's selection depends on the particular children they are considering, a larger sample of teachers will generate a more representative and thus stable selection from this pool.

However, some caution should be used when interpreting these results. The 10.2% of 'other' classifications could have produced an inflated correlation because constructs in this category in Phase 1 and Phase 3 may have had nothing in common except that they did not fit into the coding scheme. However, closer examination revealed this was not always the case, for example Mr WP T12 produced the construct "T12 D4 take books home more regularly" and contrast "T12 D4 take books home less regularly" in Phase 1 which was classified as other. In Phase 3 12 months later he produced the construct "T12 C3 reluctant to take books home" and the contrast "T12 C3 take books home more regularly" which was also classified as other.

6.3.2. Case Study of Elicitation

Having examined structural features of the of teachers' grids and the aggregated content it is also important to examine the content at an individual level in greater depth. To add to the data derived from the grid alone there is also the wealth of qualitative information available from transcripts of interviews and the teachers' concept maps. Together this allows a case study of the teachers' thinking to be described. Mrs RP T7 from Red Primary

School was chosen as a representative example for the case study.

Mrs RP T7 qualified in 1969 with the Certificate in Education. She had 12 years teaching experience with all age groups from reception to Year 6. In 1994/5 she had responsibility for a mixed Year 1/Year 2 class as well as being curriculum co-ordinator for art. She was committed to a career in teaching and did not anticipate leaving the profession. She had previously taken a career break for her family.

6.3.2.1.Phase 1

The elicitation interview provides the structure for a searching exploration of the teacher's personal theories resulting in the written record of the completed repertory grid. However, it is necessary to examine the transcripts to reveal the spontaneous discussion produced by the task, the constructs articulated but then discarded by the teacher, the laddering and negotiation of the constructs involved in producing the final written form. See appendix H for the full transcript of this interview. The constructs as they appear in the repertory grid completed on 10 November 1994 were as follows. The construct is given first and the contrast follows in italics.

Mrs RP T7 Phase 1 Constructs

- A1 difficult to hear them reading, very quiet speaking voice
 louder
- B2 not used to the structured reading scheme
 getting on well with the structured reading scheme
- C3 very good readers
 more average reader, slower to learn new words
- D4 need home support
 natural readers, don't seem to need much home support
- E5 good readers
 less good readers generally
- F6 a lot of home support with reading
 get very little home support with reading

- G7 lacking confidence in their own ability
very confident reader
- H8 find it difficult to learn new words
find it easier to learn new words
- I9 read with more expression
not such fluent readers
- J10 need a lot of encouragement and reassurance with reading
will have a go at tackling unknown words
- K11 very poor readers
good readers
- L12 more confident with sounds and blends
unsure of initial sounds

Mrs RP T7 said the most important similarity or difference between these children in terms of reading is whether they have good home support, especially at the initial stages.

Phase 1 Qualitative Analysis

The theme most frequently raised by Mrs RP, often as an initial response to the elicitation task, was ability, suggesting that this was a particularly important theme for her. Her categorisation of pupils was from poor readers, those described as struggling, through average to good readers, who were described as reading naturally.

"Nothing in common at all! Cos he's very good, he's very poor in everything and- well most things, and she's just about average." F6

"She's just like a natural reader. Just seems to come to her, you know she doesn't find any difficulty with it at all" D4

"She's just a natural reader, so she finds it easier." J10

"Well, I wouldn't say struggling but he was quite fairly average" C3

This dimension also appeared to be synonymous with learning new words quickly, with good readers described almost interchangeably as those who learn new words quickly. Another major theme was the structured scheme of explicit phonic teaching followed by Red Primary School. This was discussed in relation to the aspects of decoding that children had mastered.

"They're more confident with initial sound work and that, and blends than R. These are more confident with blends of sounds." L12

"There's three girls that know all their initial sounds, so we've done vowels in the middle and they're moving on now to the blends, where as the others are still just working through their initial sounds" L12

The progress through the structured scheme of sound work was also raised in contrast to another school using a less structured approach to teaching reading. This combined with another theme concerning the amount of time in school children had received.

"They've not been in this school all their time in school, if you see what I mean. He came from another school." B2

"They weren't using the same scheme as us, they were using the scheme where they just pick out different books" B2

"And then of course he'd never been to school before. So he's coming in with children that've already had at least, um one full term in school" B2

"At Easter time I think he came so he's only had one full term" L12

Finally, the support children received at home with their reading was obviously a great concern of Mrs RP. Especially for those described as struggling with reading, the extra practice at home was seen as essential for progress.

"Well he doesn't get a lot of support at home at the moment, 'cos quite often- I mean he really wants to go over his words every day 'cos he's right at the pre-readers ... I suppose that's part of the problem at home. Well he's not really into work, the work sort of situation" F6

In this particular case the child's lack of effort and the lack of home support were difficult to separate as they both contribute to a lack of practice that the teacher perceives as essential.

"She [natural reader] doesn't seem to need- well she doesn't do that much at home, you know, but where as with another child that would really hold them back, she's actually reading, out of Y1, the highest book in the scheme." D4

Interestingly, for those children described as natural readers the issue of extra practice at home, and indeed effort was not seen as so essential. While several other constructs were discussed by the teacher (see appendix H) such as confidence and expression, they do not add anything substantial to the recorded constructs. The themes discussed above are those which were repeated and elaborated throughout the interview and appear to be at the heart of Mrs RP's personal theory about children learning to read.

Comparing the themes which dominate the spontaneous discussion with the recorded constructs there is some convergence. The theme about ability which I have identified as the most important to this teacher, contrasting natural readers with those struggling with reading, appears in constructs C3, D4, E5 and K11. Construct H8 also concerns ability in the form of difficulty learning new words. The theme of school experience does not really appear anywhere in the constructs, but progress with the structured scheme appears in B2, which was closely linked in the discussion. Achievement in phonic skills is recorded in construct L12 and J10 in having the ability to tackle unknown words. Finally, the theme of home support with reading appears in constructs D4 and F6. So it would appear that the major themes of this teacher's personal theory do appear in the recorded constructs but are not necessarily reflected in proportion. For example confidence is mentioned in constructs G7, J10 and L12 while it certainly did not emerge as such a central theme as ability in the spontaneous discussion.

Mrs RP T7 Phase 1 Principal Components Analysis

The completed repertory grid matrix of ratings was subject to a Principal Components Analysis as described earlier in chapter 4. The results are displayed in figure 6-2.

Table 6-16 Mrs RP T7 Phase 1 PCA Component I

	Component I 74.53%		
construct	vector	loading	residual
A1	-0.0743	-1.7400	43.8891
B2	-0.2424	-5.6800	32.6543
C3	0.3201	7.5000	2.0000
D4	-0.3393	-7.9500	5.4642
E5	0.2745	6.4300	3.5718
F6	0.1925	4.5100	52.3266
G7	-0.1140	-2.6700	32.5378
H8	-0.3504	-8.2100	1.5959
I9	0.3244	7.6000	3.1567
J10	-0.3760	-8.8100	5.3006

K11	-0.3295	-7.7200	1.0683
L12	0.3381	7.9200	4.1903

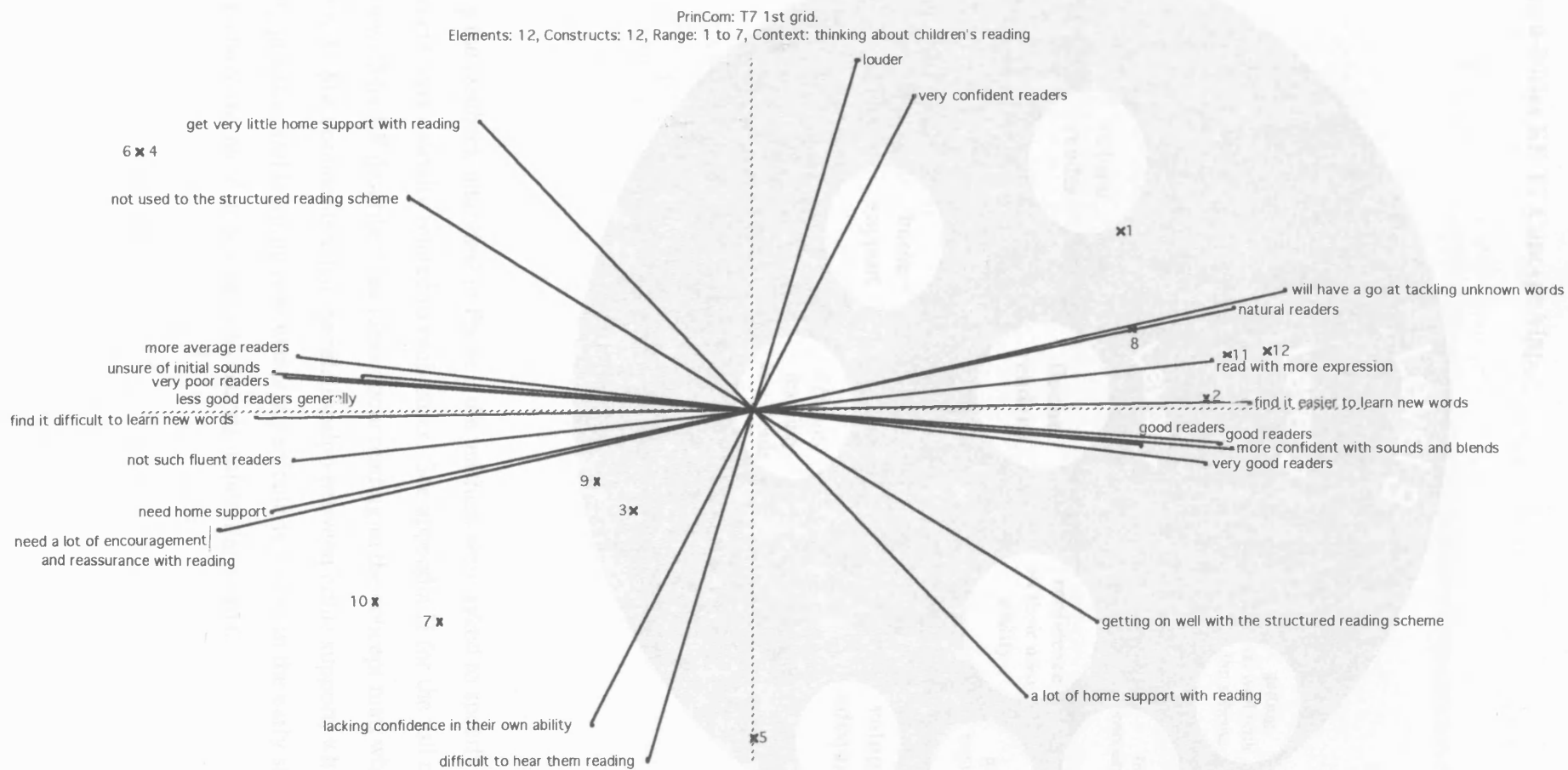
Interpretation of component I is difficult because so many of the constructs load highly towards it. Therefore it would appear to be a global dimension about reading.

Table 6-17 Mrs RP T7 Phase 1 PCA Component II

	Component II 13.65%		
construct	vector	loading	residual
A1	-0.5665	-5.6800	11.6267
B2	0.3441	3.4500	20.7518
C3	-0.0888	-0.8900	1.2079
D4	-0.1626	-1.6300	2.8073
E5	-0.5888	-0.5900	3.2237
F6	-0.4638	-4.6500	30.7041
G7	-0.5077	-5.0900	6.6297
H8	-0.0100	-0.1000	1.5859
I9	0.0788	0.7900	2.5326
J10	-0.1925	-1.9300	1.5757
K11	0.0549	0.5500	0.7658
L12	-0.0618	0.6200	3.8059

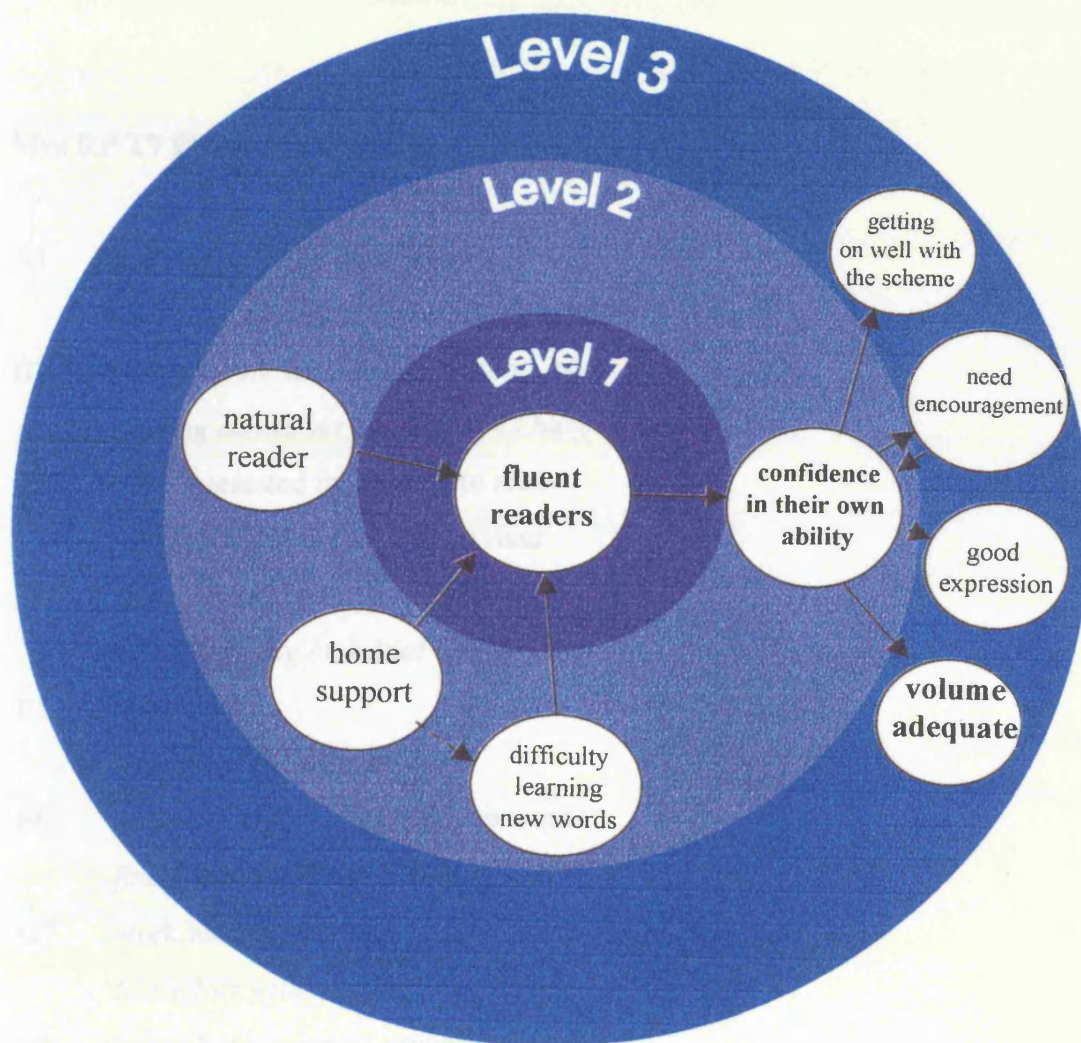
The interpretation of component II is simpler as there are fewer high loading constructs. The highest loading constructs are A1 and G7, which are concerned with the volume of reading aloud and the child's confidence in their own ability. This might suggest a component about confidence in reading aloud.

Figure 6-2 Principle Component Analysis for Mrs RP T7 Phase 1 grid.



6.3.2.2.Phase 2

Figure 6-3 Mrs RP T7 Concept Map.



During the feedback interview in Phase 2 the teachers were asked to specify how their constructs were causally related to each other. See appendix H for the full transcript of this interview. Mrs RP described her ideas about reading in the concept map which appears in figure 6-3. She commented that the relationship between home support, which provides reading practice, and learning new words is particularly strong in the early stages before children have the word attack skills to decode unfamiliar words.

6.3.2.3.Phase 3

In Phase 3 the participant repeated the elicitation task of the very first interview. See appendix H for the full transcript of this interview. The constructs as they appear in the repertory grid completed on 14 and 15 November 1995 were as follows. The construct is given first and the contrast follows in italics.

Mrs RP T7 Phase 3 Constructs

- A1 less help at home with reading
 have a lot of help at home with reading
- B2 have to work harder with reading, takes more effort
 reading comes very easily, don't have to work so hard
- C3 more interested in learning to read
 less interested in learning to read
- D4 more familiar with phonic blends
 still struggling on initial sounds
- E5 more fluent
 less fluent reading aloud
- F6 more successful at building up words
 find it more difficult blending sounds
- G7 work hard at reading
 less effort with reading
- H8 have all the parental support they need
 little support at home
- I9 more adaptable, can read other books outside the scheme
 less successful reading books outside the core scheme
- J10 read with more expression
 read very monotonously
- K11 heard reading regularly at home
 heard less regularly at home
- L12 can succeed with reading new words because they can sound out and build up words
 find it difficult to read unknown/new words

Mrs RP T7 said the most important similarity or difference between these children in terms of reading is between those who are struggling and those who read with little effort.

Phase 3 Qualitative Analysis

It is most illuminating to begin by examining the final question of the interview where Mrs RP T7 was asked to specify the most important similarity or difference between the children in terms of their reading.

"Well I suppose it's really those that are sort of struggling with the reading and the ones that just sort of read without effort. I dare say a certain part of it is natural ability, but the other is groundwork that's gone on before they came to me you know. Because they've been in school a little while, and, of course, help at home as well."

This sums up several of the themes that Mrs RP has elaborated over the lengthy interview. The first mentioned recurred throughout the interview and appears to be a very important construct in her personal theory. It is the contrast between children for whom reading comes naturally, and those for whom it does not. The latter can be divided between those who apply themselves and those who do not. This distinction is part of the major theme, but the effort put in by a child is not perceived as important for those children who are characterised as natural readers.

"Reading comes quite naturally to him, he doesn't really have to work at it" A1

"He's not the world's worker. I mean he's got the ability there but very laid back"

A1

So for those children for whom reading does not come naturally, and the majority of Mrs RP's sample fall into this category, the issue of effort becomes important. So too does the amount of support from the school and practice at home which the child receives. The support and practice with reading provided by the family could be described as a second important construct in her personal theory. This appears to be confounded with family structure, because Mrs RP perceives a two parent family as essential for providing this support.

"And it's a one parent family, so that also doesn't help. Well 'cos it's all the onus left onto the one person then isn't it? Where as if you've two parents there, at least you've a bit of support for one another" G7

This recurs as a preoccupation throughout the interview.

"It's not just them. I think it's the parents as well, don't always give them as much encouragement, both one parent family" G7

The amount of practice with reading in school is reflected in Mrs RP's third major construct, the amount of time children have had in school. Summer born children are perceived by Mrs RP to be at a disadvantage, having simply received less schooling, which persists at least into Year 2.

"The summer born children definitely lose out, especially those who perhaps need a little bit extra help or something, well especially in the beginning you know, or even the average child" C3

Finally, unsurprisingly, several aspects of decoding emerged in discussion of children's mastery of initial sounds, phonic blends and their ability to break down and build up words.

"They have recognition of sounds really, er, building up words during reading" D4

"More familiar with say, phonic blends" D4

This has an interesting interaction with the theme discussed first about natural readers.

"Well, she seems to know them but she doesn't need them, you know what I mean?

She's another one who just seems to read." D4

Here Mrs RP seems to be observing that very fluent readers do not demonstrate the subskills of reading which she is teaching the majority of her pupils. This certainly suggests an implicit model in keeping with the National Curriculum where such skills are mastered as pre-requisite to reading but become redundant when a certain level of success is attained.

While several other constructs were discussed by the teacher (see appendix H) such as expression and adaptability in reading varied material, they do not add anything substantial to the recorded constructs. The themes discussed above are those which were repeated and elaborated throughout the interview and appear to be at the heart of Mrs RP's personal theory about children learning to read.

Comparing the themes which dominate the spontaneous discussion with the recorded constructs there is some convergence. The theme I have identified as the most important to this teacher, contrasting natural readers with those who must apply themselves appears in constructs B2 and G7. The theme of family support with reading also appears in constructs A1, H8 and K11, although in striking contrast to the discussion no mention of family structure is made. The theme of school experience does not really appear anywhere in the constructs, despite arising in the discussion several times. Finally, the aspects of decoding

are recorded in constructs D4, F6 and L12. So, while it would appear that the major themes of this teacher's personal theory do appear in the recorded constructs, the way in which they do so may be misleading. Most of the key phrases are present but their meaning and relationship to the other themes are lost. Thus the picture of the personal construct system emerging from the quantitative and qualitative analyses differs in several important ways. The quantitative analysis describes a simple, near unidimensional structure which can only be easily interpreted as a global dimension about reading. The qualitative analysis suggests a far more complex structure with several dimensions. The nature of these dimensions and their relationship may also be more complex than the assumptions of principal components analysis allow. For example the contrast between those to whom reading comes naturally and those to whom it does not is not exactly bipolar. The contrast pole, those for whom reading does not come naturally, subsumes the construct about working hard or making little effort. Kelly's organisation corollary, which states that constructs are related to each other in a hierarchical structure, and Hinkle's extension of this in his work on implications and laddering can accommodate these complex structures, but principal component analysis cannot.

Mrs RP T7 Phase 3 Principal Components Analysis for new grid

The new repertory grid matrix of ratings was subject to a Principal Components Analysis and results are given in figure 6-4.

Table 6-18 Mrs RP T7 Phase 3 PCA Component I

	Component I 85.80%		
construct	vector	loading	residual
A1	0.2908	7.0000	7.5631
B2	0.3091	7.4400	7.5631
C3	-0.2555	-6.1500	2.8442
D4	-0.2559	-6.1600	2.9711
E5	-0.2958	-7.1200	6.2223
F6	-0.3045	-7.3300	5.9378
G7	-0.2775	-6.6800	10.0443
H8	-0.2908	-7.0000	5.6667

I9	-0.3253	-7.8300	12.3578
J10	-0.2592	-6.2400	24.7291
K11	-0.2966	-7.1400	5.0204
L12	-0.2937	-7.0700	2.6818

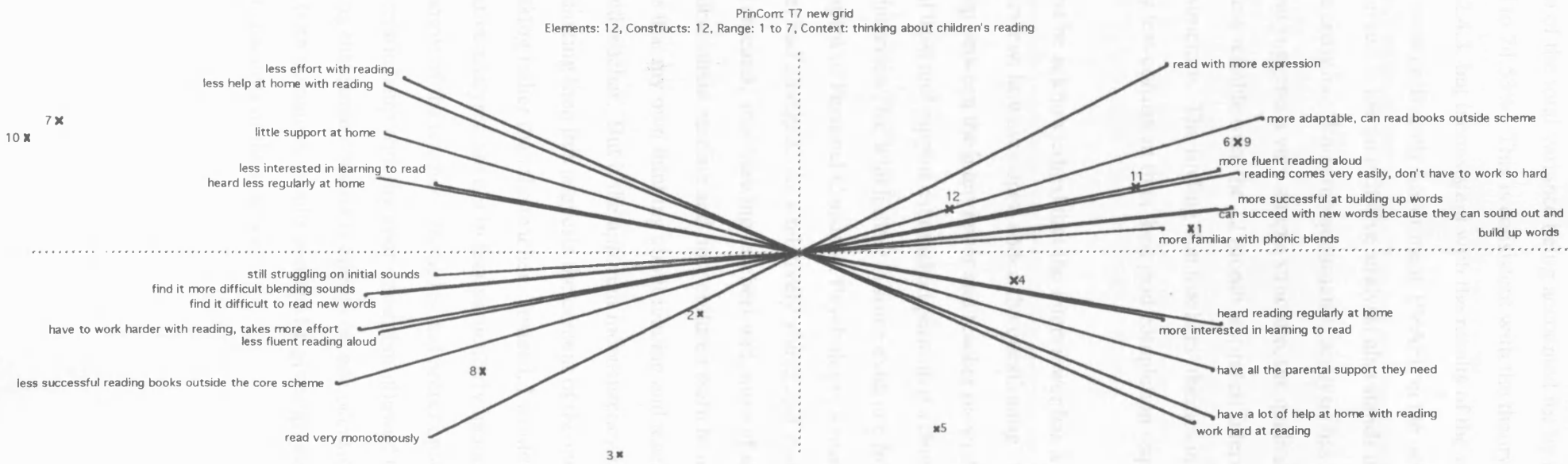
Component I accounts for even more of the variance in the new grid. Again all constructs load very highly towards the first component suggesting it is a global dimension about reading.

Table 6-19 Mrs RP T7 Phase 3 PCA Component II

	Component II 6.17%		
construct	vector	loading	residual
A1	0.4290	2.7700	2.2438
B2	-0.1998	-1.2200	3.5320
C3	-0.1766	-1.1400	1.5446
D4	0.0573	0.3700	2.8342
E5	0.2106	1.3600	4.3727
F6	0.1131	0.7300	5.4049
G7	-0.4445	-2.8700	1.8074
H8	-0.3082	-1.9900	1.7066
I9	0.3408	2.2000	7.5178
J10	0.4786	3.0900	15.1810
K11	-0.1890	-1.2200	3.5320
L12	0.1069	0.6900	2.2057

The highest loading construct for the second component is J10 which is about expression. Few of the other constructs load highly, G7 is concerned with effort and A1 with help at home but this does not make a definite interpretation clear. A tentative interpretation simply as a component about expression might be made.

Figure 6-4 Principle Component Analysis for Mrs RP T7 Phase 3 new grid.



The Phase 3 new PCA reveals greater conceptual integration than in Phase 1 with a greater proportion of the total variance being accounted for by the first component 85.80% compared to 74.53%. This is consistent with the theory and previous research discussed in section 5.2.4.3. but inconsistent with the results of the group of teachers as a whole, which showed a nonsignificantly lower mean PVAFF in the new Phase 3 grid. This “tightening” effect observed in the quantitative analysis also stands in contrast to the results of the qualitative analysis. While the quantitative analysis has been demonstrated to be extremely reliable, but suggests a very simple structure, the qualitative analysis has been demonstrated to be far less reliable over the 12 month test-retest interval, but apparently reveals a more complex structure. The finding that teachers’ themes in open ended discussion are apparently less consistent than their grid completion requires some explanation.

It must first be acknowledged that the interviewer has a profound influence on the content of the interview, however open ended the questioning. Over the 12 month period the relationship between the interviewer and teacher inevitably changed and it is possible that the mutual trust and rapport established permitted a deeper level of communication and a less rigid interview, for which there is some evidence from the transcripts. Secondly, in the reflexive spirit of Personal Construct Psychology, it must also be acknowledged that I, the interviewer had changed. As a relatively young and inexperienced researcher the process of reviewing research, interviewing teachers and, most of all, my time in school has developed my own ideas about reading and how children learn to read. I find it a far more probable hypothesis that my own thinking about reading and teaching has altered than that of a very experienced teacher. But if the apparent inconsistency is attributed entirely to changes in my own thinking then this suggests the content of the interview can similarly be attributed to my thinking rather than the teacher. Instead, I would like to conclude that the results of the qualitative analysis are not in fact particularly inconsistent. If they are assumed to be a random sample of the teachers’ thoughts and preoccupations which the context of time, place and relationship with the interviewer has allowed to be accessed, then it is unsurprising that some constructs appear on one occasion but not another, and those which appear on both occasions should perhaps be given greater weight as reflecting more permanent concerns of the teacher.

6.4. Feedback to Teachers

The FOCUSED Phase 1 grids which were given to every teacher during the feedback interview in Phase 2 appear in appendix J. The FOCUSED Phase 2 grids which were also given to participant appear in appendix K. The visual nature of the dendograms made the results of the cluster analysis relatively easy for teachers to interpret. Once the names of pupils were reinserted on the diagrams all the participants readily recognised the patterns of relationships among elements. The construct clusters were not always so readily interpreted. But the universal recognition of the element clustering patterns by teachers does provide evidence for the validity of the repertory grids in capturing personally meaningful information from teachers.

6.5. Concept Maps

Only 15 teachers completed a concept map, which were originally drawn on blank paper by the author but are presented in the style of Mergendoller & Sacks (1994) in appendix I. There was great variety in structure, 6 teachers (Mrs BS T2, Mrs RS T4, Mr RT T5, Mrs OC T18, Mrs OW T19 and Mrs OT T20) did not produce a concept map which could be fitted to the concentric levels used by Mergendoller & Sacks because they contained completely isolated nodes. Mergendoller & Sacks do not report any instances of this at all, suggesting a greater variety in concept map structure in this study. Unfortunately this does make the concept maps more difficult to analyse. The isolated nodes were treated as a new level 1, and where they formed a separate group they were treated as a new concept map and all measures were simply summed over the separate maps for that individual teacher. The analysis of structure consisted of Mergendoller & Sacks' classifications of nodes, links chunks and total depth as they had found average depth to be unstable. The means for the present study are shown in the table below alongside the results reported by Mergendoller & Sacks (1994) at their first time point.

Table 6-20 Structural measures derived from concept maps in the main study.

	present study n=15		Mergendoller & Sacks (1994) n=23	
	mean	standard deviation	mean	standard deviation
nodes	9.53	2.03	28.22	9.45

links	11.00	3.80	31.91	8.86
chunks	1.80	0.77	4.74	2.49
total depth	20.53	5.58	58.52	27.37

These results stand in striking contrast to the results of Mergendoller & Sacks (1994). On every measure their results are approximately three times the mean from the present study. This is difficult to explain as the sample of participants and procedure were very similar. It must be that the participants are experiencing different task demands, it is possible that Mergendoller & Sacks' participants saw the task as to generate as many ideas about reading as possible, where as the participants in the present study interpreted the goal as arranging the constructs they had previously generated for their repertory grids. Evidence for this view is the fact that most participants in the present study simply used their repertory grid constructs as nodes. Very few teachers came up with any concepts they had not previously generated as personal constructs, although they were specifically invited to do so. Incidentally this also provides compelling evidence from an independent source that 12 sorts was sufficient to exhaust most teachers' constructs about reading. There were only 4 teachers who did produce a node for their concept map which had not occurred in their constructs:

Mrs BB T3 effort

Mrs YN T10 story writing

Mrs PC T16 develop a positive attitude

Mrs OW T19 personality of the child

These provide too few cases to look for any trends or patterns.

The web of causality indicated by teachers in their concept maps was particularly interesting. The concept map offers a completely different way to PCA to analyse construct relationships in grids, a very graphic and immediately comprehensible way. For example, the importance to many teachers of the construct parental support/home support is demonstrated by the number of links that run from the node to other aspects of reading. A single glance at the concept maps reveals such relationships in a way that the matrix of numbers in the repertory grid does not.

The structural measures used to analyse the concept maps are measures of the complexity of the concept map, if they are also measures of the complexity of teachers' thinking in this

domain they should be highly correlated with measures of cognitive complexity. To test this hypothesis Pearson's product moment correlation was calculated between the numbers of nodes, links, chunks and total depth from the concept maps and the two measures of cognitive complexity from the repertory grid; Intensity and PVAFF. The results are shown in the table below.

Table 6-21 Pearson correlations between measures of cognitive complexity at Phase 2 of the main study.

	nodes	links	chunks	total depth	Intensity
links	0.8612 (15) p=0.000				
chunks	0.3905 (15) p=0.150	0.4127 (15) p=0.126			
total depth	0.9125 (15) p=0.000	0.9134 (15) p=0.000	0.4066 (15) p=0.133		
Intensity at Phase 2	-0.2750 (15) p=0.321	-0.2217 (15) p=0.416	0.2007 (14) p=0.473	-0.3443 (15) p=0.209	
PVAFF at Phase 2	-0.1758 (15) p=0.531	-0.1612 (15) p=0.566	0.3156 (15) p=0.252	-0.1679 (15) p=0.550	0.8936 (20) p=0.000

There were no significant correlations between any of the concept map measures and either of the repertory grid measures. As discussed previously in section 5.2.4.3. there was a very strong correlation between Intensity and PVAFF. Among the concept map measures, the number of nodes, links and the total depth were all significantly correlated, but the number of chunks did not correlate with any of these measures. This suggests the chunk measure is unreliable and should be used with caution in future. This is probably a result of the greater variety of structure of concept maps in the present study. The total lack of relationship between the repertory grid measures and the concept map measures indicates that they cannot both be accurately measuring the complexity of teacher thinking in this domain. Mergendoller & Sacks found all the concept map structural measures to be stable characteristics of the individual over a 12 month period, just as the present study found Intensity and PVAFF to be, but they cannot be measuring a single characteristic of the individual.

Perhaps the concept maps are most useful, not for their accuracy in measuring the complexity of teacher thinking, but in conjunction with repertory grids as an alternative and accessible way of exploring the relationships between constructs.

6.6. National Curriculum Interviews

The National Curriculum Interviews were not carried out with every teacher because many had not read the revised NC for 1995/96, or were not prepared to comment on it. Where teachers were interviewed their responses were generally limited and not reading based. This could be because the interview took place after the completion of the second repertory grid and the feedback from the Phase 1 grid, and so the teachers were exhausted, but there was one notable exception; Mrs BS T2. Mrs BS was involved with the senior management of Blue Primary School as curriculum co-ordinator, as well as having responsibility for SEN, geography and science she had a special interest in reading, and perhaps this experience made her willing to talk in some detail about Reading in the National Curriculum.

Mrs BS said that she had not read the new 'slimmed down' NC orders in much detail, but that she found them very similar to the old ones for English. She commented that the slimness had been achieved by simply condensing the ideas, sometimes just joining together in one sentence what had previously been several sentences. I agreed that this is what appeared to have happened to the Level Descriptors and Mrs BS responded that she would have preferred the old ones without the tick boxes.

Comparing the NC with her personal constructs, Mrs BS found there were themes in common. She identified the range of approaches the NC demands as one of her themes. She also identified the variety of reading materials as a theme in her teaching, but it had not emerged as a construct in her repertory grid. Thus the skills involved in reading, such as phonics and sight vocabulary, were identified as the most important similarity by Mrs BS.

Mrs BS identified parental support and the child's attitude towards reading as themes present in her personal construct system but absent from the NC. Mrs BS suggested that if the range and variety the NC recommends are used, it should result in a good attitude, but the NC is just about skills. She said the quality of reading material, scheme or non-scheme

is important, and its appropriateness in terms of content and level of difficulty. She explained that if something is too hard the child becomes disheartened, and this is where scheme books have a role in providing very simple reading material early on. In terms of content Mrs BS said that good readers soon find they can read beyond what they can comprehend, so again an appropriate level is important to maintain a positive attitude. So Mrs BS argued, it is selecting reading material at the right level that is essential for keeping the child's positive attitude and enthusiasm. I would observe that parental support and the child's attitude are beyond the scope of the NC, while of course they are major preoccupations for teachers, so it is to be expected that these themes figure prominently in teachers' personal constructs but not the NC.

Mrs BS could not identify any themes of the NC which did not appear in her personal construct system. I would suggest that variety of reading material falls into this category as it was not generated as a personal construct.

When asked about the relevance of the NC Mrs BS replied that it is only about the achievement of skills, but there is so much more to reading than that. Mrs BS spontaneously added that in other documentation, specifically OFSTED, there is more about how to teach these skills which is not covered by the NC.

I find myself in complete agreement with Mrs BS's analysis, of the NC and of the similarities and differences with her own personal construct system. I also find it interesting that so few teachers were prepared to comment on the NC, or even claimed to have read it. Perhaps this is attributable to wariness over a particularly controversial issue, but perhaps it is more attributable to the time of year. It seems immediately before the summer vacation was not a good time to ask teachers about documentation relating to the following academic year, Mrs OC T18 spoke for many participants when she said that if teachers read everything they are supposed to they would never do any teaching.

6.7. Conclusion

The results of the main study demonstrate the utility of the repertory grid methodology in exploring teacher thinking about reading. The value of these results will be discussed in the next chapter.

7. Conclusion

The most striking finding of the thesis has been in terms of the content of primary teachers' thinking about children learning to read. As this has been explored through the diverse methods of interviews, questionnaires, repertory grid techniques and concept mapping, it has become increasingly clear how little teacher thinking has in common with the thinking of reading researchers. The different theoretical accounts of reading described in chapter 2 are rarely alluded to by teachers themselves, and the most robust research results appear to be unknown. This is a very important finding in itself, but it is interesting to consider what has emerged about the content of teacher thinking.

Evidence from two sources converges to suggest that teachers' thinking is dominated by children's achievement in reading. Analysis of teachers' repertory grids revealed a significant correlation between the element ratings on the first component of PCA and the reading test results for 11 of the 13 teachers for whom data were available. This strongly suggests that the first component of PCA for most teachers' concerns achievement. The first component of PCA accounted for a mean of 69.04% to 77.29% of the variance at different stages of the main study, which is such a large proportion it suggests that achievement is almost teachers' exclusive concern. While the exceptions to this are very interesting, the content of teachers' constructs also suggests that achievement is the single most important theme emerging from the process. Perhaps this is emphasis on achievement is unsurprising but it seems to contradict the results of interview observation where teachers again and again return to their preoccupations of individual differences and fulfilling the potential of every child, at whatever level of achievement. Yorke (1989) has argued that the percentage variance accounted for by a construct is not a good measure of its importance, but merely an artifact of the content of the constructs which originally went into the PCA. In the case of the present study where the constructs were generated by triadic elicitation it may be that their frequency does not represent their importance to the teacher. A possible route to resolve these questions would be to perform an oblique rather than orthogonal rotation PCA and in future research this would appear a fruitful avenue to explore. Alternatively, simply by examining the content of teachers' personal constructs some common themes emerged apart from achievement. It seems that almost all of the

teachers were theoretically eclectic and child centred, being concerned with the personality, motivation and development of the individual child in a social context. Most teachers seemed particularly concerned with the social context of reading in terms of parental support and family structure. There were great individual differences in the content of teachers' constructs about reading. It could be speculated that these might vary systematically with characteristics of the teacher or children used as elements but as the aim of the main study was to produce descriptive case studies of teacher thinking it is beyond the scope of this thesis to pursue this. However, it was clear that the content of teachers' constructs collectively was very stable, with a correlation of 0.94 over a 12 month interval, but individually fairly low, with a correlation of 0.49. I believe that this indicates that there is a stable pool of constructs about reading available to all teachers through a shared culture. The individual teacher's selection from this pool at any moment in time depends on many contextual variables, like the particular sample of children that they are considering. This would satisfactorily explain why individual teachers' construct content is less stable than the same teachers' collective construct content.

The results of the concept maps were particularly interesting in interpreting the analysis of teachers' personal construct systems as they allow teachers to specify themselves, in a clear and accessible way the relative importance of the constructs they have generated. However, the results of the structural analysis were extremely alarming as no significant relationship at all was found between any structural measure and either Intensity or PVAFF. If the structural measures derived from concept maps are a measure of the cognitive complexity of thinking in this domain, as they are claimed to be, then they should correlate with these other measures of cognitive complexity in the same domain. These results are particularly curious as the structural measures have been previously reported to be stable characteristics of the individual by Mergendoller & Sacks (1994), just as Intensity and PVAFF have been by Feixas et al (1992) and the present study. The only possible conclusion is that the structural measures derived from repertory grids and concept maps cannot both be measuring cognitive complexity. Given the recent interest and expansion in the use of concept maps this failure to find any relationship with the more established repertory grid measures sounds a note of warning. I believe it is urgent and vital that future research establishes the validity of structural measure derived from concept maps before such research can progress. This validity could be established by comparing measures

derived from concept maps to other measures of cognitive complexity in a similar way to Schneier (1979).

The research questions for this thesis set out in section 2.5. were to discover by what method teachers' thinking about reading could be assessed, and to examine the reliability and validity of such methods. It has been demonstrated that repertory grid techniques are a valid and useful method to explore teacher thinking in this domain. Their strongest claim to validity is that they allow teachers to make explicit the personally meaningful dimensions which they use to think about reading. This addresses many of the criticisms of previous research into teacher thinking which has been overly dependent on researcher defined categories and questionnaires. The validity of repertory grid techniques is further supported by the recognition and ownership participating teachers' have reported when given their FOCUSED grids. The present study has also examined the test-retest reliability of repertory grids over a far longer interval than has been previously reported. The grids were of course in a limited domain, but used elicited constructs and several structural measures derived from the grids were calculated. No test-retest reliability has ever been reported for structural measures in a limited domain. Although the number of participants was small, there were several significant results.

It was found that the pattern of construct relationships was very stable over long time periods. The mean Coefficient of Convergence over a 6 month interval was 0.84, and over a 12 month interval it was 0.77. This compares very favourably with the value of 0.64 for the equivalent Bannister's Consistency Measure over a 1 month interval previously reported by Feixas et al (1992). There are several possible explanations for this unusually high consistency in the pattern of construct relationships. As different populations can produce very different figures for reliability it could be that teachers are more consistent in their thinking than the population at large. However, Feixas et al's sample was entirely undergraduate students, a population from which teachers themselves are drawn, so it would be surprising to find any large differences. The explanation could lie in the limited domain of construing of the present study. It is possible that thinking in this domain is more consistent than in the general domain of thinking about other people, and is subject to less change, but only future research comparing such traditional grids to grids in a limited domain could resolve this question. While low test-retest reliability on any grid measure can be interpreted as either a lack of reliability or evidence of change, high test-retest

reliability is less ambiguous and provides evidence of both reliability and stability. It is clear the teachers in the present study were impressively consistent in their thinking over the 12 months of the study.

It was also found that the two measures of cognitive complexity; Intensity and PVAFF were significantly correlated at every phase of the study with values ranging between 0.89 and 0.95. This is in striking contrast to Feixas et al who failed to find a significant relationship. Feixas et al were puzzled by their finding as theory predicts a strong relationship between the two measures. The result of the present study suggests a replication would be useful to clarify this issue. Further investigation should perhaps compare grids in a limited domain and the traditional grids used by Feixas to see whether this explains the opposing findings.

Considering Intensity alone, the present study found it to be a stable characteristic of the individual with a test-retest reliability of 0.85 over 6 months and 0.87 over 12 months. These figures are for separate completions of the same grid, but the test-retest reliability of Intensity was still high for a completely new grid, at 0.81 over a 12 month interval. This is lower than Feixas et al's value of 0.94 over a 1 month interval. However, Intensity is a function of grid size and Feixas et al's data was from a combination of large and small grids, therefore the true test-retest reliability is confounded with grid size. Without dividing the data and calculating the test-retest reliability for the large and small grids separately it is impossible to know what the real value would be. Considering PVAFF alone, it was also found to be a stable characteristic of the individual with a test-retest reliability of 0.82 over 6 months and 0.73 over 12 months. As with Intensity these figures are for completion of the same grid, but the test-retest reliability for the new grids was 0.70 over a 12 month interval. This is of a similar order to Feixas et al who reported a value of 0.67 over a 1 month interval. The similarity of the figures for PVAFF lead me to the tentative conclusion that the reason Feixas failed to find a significant correlation between Intensity and PVAFF is because while Intensity increases as the number of constructs in a grid increases, PVAFF is not related to grid size (although Feixas et al report a significant trend for smaller PVAFF for larger grids). Because the present study only used grids with 12 constructs this artifactual problem did not occur.

In conclusion, the repertory grid techniques used in the present study appear to show test-retest reliability which is comparable to most psychometric tests. However, the issue of

measurement of change in teacher thinking is complex because stability is confounded with reliability. However, having established the reliability of such measures in the present study it would now be possible to use the methodology to measure change, for example before and after an inservice training, using repertory grid techniques.

Reconsidering Ajzen's (1988) model of planned behaviour, as described in the chapter 1, suggests some avenues for future research. The scope of the present study was an exploration of teachers' thinking, but through this exploration it has become clear that there are many constraints and limitations which teachers face which prevent them from translating attitudes and beliefs into behaviour. I believe future research should focus on perceived behavioural control or subjective norms rather than the personal norms which have been the exclusive concern of research to date.

Appendix A

Schools and Teachers Participating in the Main Study

The details below were correct at the beginning of the study in the Autumn Term of the 1994/5 academic year. The Department for Education brought in monitoring of ethnicity by schools for the 1992/3 academic year to be phased in as the first cohort moved up through the school system, but it has proved very problematic. The monitoring is based on parents' self-report in interviews with the school. Schools which found it difficult to interview parents have returned very high proportions of the "other" no return category invalidating the monitoring. The 1991 census data can be broken down by school catchment and this probably reflects more accurately the ethnicity of the school's pupils. The categories were those used by the government in all surveys of ethnic origin where respondents are given the following categories and asked to indicate which best describe their ethnic origins.

White UK

born in Eire
Other

Black Black Caribbean

Black African
Black Other

Asian Indian

Pakistani
Bangladeshi
Chinese
Asian Other

Other

Therefore in the following descriptions the 1991 census data is reported.

Green Primary School

The school is situated in what was once a village on the outskirts of Leicester but is now an outer suburb. The LEA reported that 5.9% of pupils are eligible for free school meals and 1.13% had a statement of Special Educational Needs. The census data for the Green Primary catchment area reported that 93% of school age children (5-15) were described as "White", 4% as "Indian", 1% as "Black Caribbean" and 1% as "Other". The school takes pupils from nursery to Year 5, at the time of the study it had approximately 368 pupils, 12 full-time and 2 part-time qualified teaching staff in addition to the head and deputy. The school has an open plan design although in practice teachers work separately and in some cases go to great lengths to erect physical separators in their teaching space. There is a whole school reading plan followed by all pupils which is very well resourced and involves a great variety of books from many different schemes. All children also have a "choosing book" which they could take home every night. Communication with parents is through a sheet which goes home with the reading book on which both can write comments. From Year 2 children identified by the class teacher as requiring extra help with reading are withdrawn for individual time with a literacy support teacher 1-3 times per week. All children in Year 3, 4 and 5 are tested with the NFER-NELSON Group Reading Test 6-12 twice yearly. Reading records passed on to the next teacher record the test results and which books in the school plan have been read.

Miss GM T1 had come to the school after completing her BEd in 1992 and worked for 1 year as a reception teacher. This year she had responsibility for a class of 27 Year 1 pupils including some she had taught during reception. She was committed to a career in teaching and did not anticipate leaving the profession but moved to new teaching job in another LEA at the end of the 1994/5 academic year.

Miss GA T9 had also come to the school as her first job after completing a PGCE in 1991. She had 2 years teaching experience with Year 4 pupils, and this year she had responsibility for 22 Year 4 pupils. She was committed to a career in teaching and did not anticipate leaving the profession.

Blue Primary School

The school was built on a housing estate on the edge of a village which has now become a suburb of Leicester. The LEA reported that 9.0% of pupils were eligible for free school meals and 1.02% had a statement of Special Educational Needs. The census data for the school catchment area reported that 78% of school age children (5-15) were described as "White", 1% as "Black Caribbean", 1% as "Black Other", 15% as "Indian", 2% as "Pakistani", 1% as "Asian Other" and 3% as "Other". The school takes pupils from nursery to Year 5, and at the time of the study it had approximately 471 pupils, 17 full-time and 2 part-time qualified teaching staff in addition to the head. There was a carefully organised whole school reading plan which was followed by all pupils. Books from very many schemes and some non-scheme books were colour coded into levels equivalent to reading ages. There were also non-scheme on display in every classroom which could be borrowed and taken home by children. There was a reading policy document written by Mrs BB for discussion in staff meetings, but she was currently reviewing it and several changes were to be made by the 1995/6 academic year. All children in Year 2, 3 and 4 complete Young's Group Reading Test at the end of the year. Year 5 pupils complete the NFER-Nelson Group Reading Test 6-12, as specified by the secondary school because the Young test does not extend to higher reading ages. The reading test results are used to help place children in the reading scheme. Reading records were more detailed than at any other school consisting of a book which went with the children through their school career recording every aspect of their progress. An illustrated booklet advising parents about how to help their child with reading was being developed that would go out to next academic year. Communication with parents about reading is through a sheet which is sent home with the child's reading book every night. The teacher can use this to praise the child or ask parents to do reading activities with the child, usually simply to hear them read certain pages. Parents can also write comments to the teacher on this sheet. Children who need extra help with reading are identified by the class teacher and go to a reading support teacher who is paid partly from the school budget and partly by the family of schools to which the school belongs who believe that such early intervention will be cost effective by preventing difficulties in secondary school.

Mrs BS T2 qualified with the Certificate of Education in 1968 and had since gained 26 years of teaching experience with KS2 children. This year she had a class of 28 Year 3 pupils as well as many management responsibilities within the school as governor and curriculum co-ordinator for science and geography. She was committed to a career in teaching and did not anticipate leaving the profession.

Mrs BB T3 qualified with the Certificate of Education in 1971 and had 25 years of teaching experience with Year 1, 2 and 3 pupils. This year she had a class of 29 Year 2 pupils, as well as responsibility for KS1 SATS and being curriculum co-ordinator for English and RE. She had taken a career break for her family. She was committed to a career in teaching and did not anticipate leaving the profession.

Red Primary School

The school is situated in a village some miles outside Leicester where it is the only school. The LEA reported that 8.3% of pupils were eligible for free school meals and 2.65% had a statement of Special Educational Needs. The census data for the school catchment area reported that 99% of school age children (5-15) were described as "White". The school takes pupils from reception to Year 6 and at the time of the study it had approximately 260 pupils, 9 full-time and 3 part-time qualified staff in addition to the head. There was a whole school reading plan followed by all pupils. The core scheme from reception to Year 4 is 1, 2, 3 & Away, but the school reading plan includes a variety of scheme books at equivalent levels. Children identified as needing extra help with reading by the class teacher are referred to the deputy, who is Special Needs co-ordinator, for assessment and an individual educational plan drawn up for the child. For these children the Oxford Reading Tree scheme is favoured. The children would be withdrawn for 3 x 15 minute sessions per week with an ancillary. Communication with parents is through parents evenings and a booklet that goes home with the child's reading book every night in which the teacher and parent can comment. There is a very detailed and useful reading policy document. All pupils in Year 3, 4, 5 and 6 complete the Schonell Graded Word Reading Test at the beginning of the year.

Miss RS T4 completed her PGCE in 1985 and had 9 years of experience teaching children from nursery to secondary. She had joined the school as deputy head although she was also a class teacher, and this year she had responsibility for a class of 27 Year 3 and 4 pupils as well as being SEN co-ordinator and being curriculum co-ordinator for maths. She was committed to a career in teaching and did not anticipate leaving the profession.

Mr RT T5 had completed his BEd in 1992 and joined the school in January 1993. He had 2 years teaching experience and this year had responsibility for a class of 30 Year 4 pupils. Having given up management training to teach Mr RT was committed to a career in teaching and did not anticipate leaving the profession.

Miss RR T6 originally qualified as a secondary teacher of PE with a Certificate of Education. This year she had responsibility for a class of Year 5 pupils as well as being curriculum co-ordinator for English. Miss RR retired at the end of the 1994/5 academic year after 36 years of teaching KS2, KS3 and KS4.

Mrs RP T7 qualified in 1969 with the Certificate in Education. She had 12 years teaching experience with all age groups from reception to Year 6. This year she had responsibility for a mixed Year 1/Year 2 class as well as being curriculum co-ordinator for art. She was committed to a career in teaching and did not anticipate leaving the profession. She had a career break for her family.

Violet Primary School

The school is situated in a pleasant outer suburb of Leicester. The LEA reported that 4.6% of pupils were eligible for free school meals and 1.86% had a statement of Special Educational Needs. The census data for the school catchment area reported that 78% of school age children (5-15) were described as "White", 1% as "Black Caribbean", 15% as "Indian", 1% as "Pakistani", 1% as Chinese, 2% as "Asian Other" and 1% as "Other". The school takes children from nursery to Year 5, and at the time of the study had approximately 303 pupils. Oxford Reading Tree is the core scheme but many others are also used and it is expected that most pupils will have completed the scheme by KS2. There was no reading test administered to all pupils, although trials with different tests were planned.

Miss VP T8 had responsibility for 22 Year 4 pupils.

Yellow Primary School

The school is situated in one of the more affluent and attractive suburbs of Leicester. The LEA reported that 7.1% of pupils were eligible for free school meals and 1.10% had a statement of Special Educational Needs. The census data for the school catchment area reported that 72% of school age children (5-15) were described as "White", 1% as "Black Other", 23% as "Indian", 1% as "Pakistani", 1% as "Asian Other" and 1% as "Other". The school takes children from nursery to Year 5, and at the time of the study had approximately 506 pupils. There was no reading policy statement as it was being drafted at the time of the study. There is a whole school reading plan which all children follow, although teachers do have some autonomy in how they use this in their own class as it does include a great variety of reading schemes at equivalent levels. Reading is not a special priority and almost all the children are reading well above their chronological age. As a result most children will have completed the school reading plan and by the end of Year 3 and be "free readers". All children in Year 3, 4 and 5 complete the NFER-NELSON Group Reading Test 6-12 at the end of the summer term. Reading support is provided from Year 3 by the deputy head for 3 children in each class selected by the class teacher. These children are given the Burt word reading test twice yearly for diagnostic purposes. The reading policy document was being discussed by staff and redrafted at the time of the study.

Mrs VN T10 was very experienced having taught every age group from nursery to Year 6 over 23 years of teaching. She qualified with the Certificate of Education in 1967 and this year had responsibility for a class of 29 Year 2 pupils. She was committed to a career in teaching, but was considering early retirement due to the extra burden of administration imposed by the National Curriculum.

Mr VW T11 had entered teaching after another career and completed his BEd in 1982. This year he had responsibility for a class of 35 Year 3 pupils as well as being curriculum co-ordinator for science and CDT. He was committed to a career in teaching and did not anticipate leaving the profession.

White Junior School

The school is situated in a council estate on the edge of Leicester. The LEA reported that 69.0% of pupils were eligible for free school meals and 4.31% had a statement of Special Educational Needs. However this is probably an underestimate of the real needs of pupils due to the length of time the statementing procedure requires. Staff reported informally that approximately 50% of pupils were on the Special Needs register. The census data for the school catchment area reported that 94% of school age children (5-15) were described as "White", 1% as "Black Caribbean", 1% as "Black Other", 2% as "Indian", 1% as "Other". The school takes about 237 pupils from Year 3 to Year 6 in 9 classes. There are 9 full-time and 2 part-time qualified staff. There is no whole school reading scheme, rather each class has boxes of books with many non-scheme and some scheme books, which children can choose from freely, as well as the library resources. In Year 3 and 4 Oxford Reading Tree is the core scheme and books are shared between classes but there are not enough for all the children. There is a shortage of books leading teachers to set up schemes to raise money to buy books and equip their classes from their own pockets with books withdrawn from libraries in some cases. Reading is a great priority within the school as almost all children are reading below the level expected for their chronological age. To deal with this the school has set up a special literacy support unit with its own pleasant room and extra resources, two part-time specialist teachers and ancillaries who have received training in helping children learn to read. Parents receive an accessible and illustrated booklet about how to help their child with reading when their child starts school. Reading records consist mostly of the books read and teachers comments written while hearing the child read aloud. A detailed reading policy document had been drawn up by staff. At the end of 1994/5 budget cuts meant the unit would have to be closed, the resources divided and the qualified staff made redundant. All children in the school were tested twice yearly with the France Primary Reading Test.

After graduating Mr WP T12 spent several years working and travelling before completing his PGCE in 1991. He came to the school as an NQT and had 3 years teaching experience with upper juniors. This year he had responsibility for a class of 25 Year 5 pupils. Mr WP was applying to teach abroad being so disillusioned that his ideals on entering the teaching profession were being made impossible due to inadequate resourcing and feeling that teachers were being forced to reproduce inequalities of society in the inequalities between schools.

Mrs WB T13 qualified with the Certificate of Education, but more recently completed the modular conversion to BEd. She had 16 years teaching experience with reception to year 2 pupils. This year she had responsibility for a class of 28 Year 6 pupils as well as being Special Needs co-ordinator. She was committed to a career in teaching and did not anticipate leaving the profession.

Mrs WT T14 completed her PGCE in 1985 and had 9 years of teaching experience with KS2. This year she had a class of 27 Year 3 and 4 pupils as well as management responsibilities and curriculum co-ordinator in science. She was committed to a career in teaching and did not anticipate leaving the profession.

Pink Primary School

The school is an inner city school serving a multiethnic community. The LEA reported that 37.4% of pupils were eligible for free school meals and 0.51% had a statement of Special Educational Needs. The census data for the school catchment area reported that 14% of school age children (5-15) were described as "White", 6% as "Black Caribbean", 2% as "Black African", 4% as "Black Other", 47% as "Indian", 7% as "Pakistani", 8% as "Bangladeshi", 5% as "Asian Other" and 6% as "Other" with a further 1% born in Eire. The school takes pupils from nursery to Year 6 having about 332 pupils. The schools uses Ginn 360 as a base scheme but this is complimented by other reading schemes and the library resources. Every classroom also has non-scheme books displayed and used regularly. Because a very high proportion of pupils have English as a Second Language, Section 11 provision allows a qualified teacher to take a small group of children selected by the class teacher for language and literacy activities twice each week, although this provision was under threat at the time of the study. At present there is no advice for parents on helping their child with reading but the school has applied for a grant from the LEA Literacy Fund to make a video for this purpose which could be shown to parents at school and lent out. There was no reading test administered to all pupils, but children with reading difficulties were tested with the Burt Word Reading Test.

Miss PT T15 qualified in 1971 with the Certificate of education and had since gained a BEd and Certificate in Special Needs over 23 years of teaching experience with every age group from nursery to Year 6. Her time was split between 0.5 responsibility for a class of 21 Year 4 pupils and 0.5 as Special Needs co-ordinator for the whole school. She was committed to a career in teaching specialising in Special Needs and did not anticipate leaving the profession.

Miss PC T16 completed her BEd in 1982 and had 12 years teaching experience. This year she had responsibility for a class of 24 Year 2 pupils. She was committed to a career in teaching and did not anticipate leaving the profession.

Mr PP T17 qualified with a BEd and had gained an MEd as well as 20 years of experience teaching all age groups from nursery to adults. This year he shared responsibility as a team teacher for a class of 42 Year 6 children, as well as being deputy head. He was committed to a career in teaching and did not anticipate leaving the profession.

Orange Primary School

The school is a Church of England school situated in a pleasant urban area. The LEA reported that 7.6% of pupils were eligible for free school meals and 0.22% had a statement of Special Educational Needs. Because Orange Primary School is a Church of England voluntary controlled school it has no catchment as such and so census data is unavailable. The school takes pupils from reception to Year 6, and at the time of the study it had approximately 465 pupils, 15 full-time and 1 part-time qualified teaching staff in addition to the head and deputy. Reading was defined as a current priority by the head and many changes were underway. The part-time teacher was a reading specialist responsible for providing a program of intensive help to those identified as with reading difficulties. There was a reading policy document, but as it had remained unchanged for many years it was being radically redrafted at the time of the study by Mrs OC. There is a whole school reading scheme followed by all children, but this was also undergoing major changes as Oxford Reading Tree was being phased in as the core scheme replacing Ginn 360. It includes a great variety of schemes and these are grouped into colour coded bands, each equivalent to a one year reading age band. All pupils in Year 2, 3, 4, 5 and 6 completed the NFER-NELSON Group Reading Test 6-12 twice yearly.

Mrs OC T18 qualified in 1974 with the Certificate of Education and had 20 years of teaching experience. During this time she had spent 9 years with the Literacy Support service. This year she had responsibility for a class of 34 Year 5 pupils as well as being Language curriculum co-ordinator and SEN co-ordinator and reviewing the school reading policy and resources. She was committed to a career in teaching and did not anticipate leaving the profession.

Mrs OW T19 qualified with the Certificate of Education and had since gained 15 years of teaching experience with KS1 and KS2 children. This year she had responsibility for a class of 34 Year 2 pupils as well as being RE curriculum co-ordinator. She had a career break for her family. She was committed to teaching and but considered leaving the profession through early retirement.

Mrs OT T20 qualified with the Certificate of Education in 1966 and had 23 years of teaching experience with early years children. This year she had a class of 23 Year 1 pupils as well as being curriculum co-ordinator for art. She had a career break for her family. She was committed to a career in teaching and did not anticipate leaving the profession before retirement.

Appendix B

Schools and Teachers Participating in the Pilot Studies

Details of schools participating in the pilot studies. The details for P1-P15 were correct at the end of the Summer Term of the 1993/4 academic year at which time the participants were all acting as teacher tutors to PGCE students on their final teaching practice. The details for P16-P20 were correct at the time of the interviews in the Spring Term of the 1993/4 academic year.

Silver Primary School

The school is situated on a housing estate on the outskirts of Leicester. The LEA reported that 42.0% of pupils were eligible for free school meals and 0.94% had a statement of Special Educational Needs. The census data for the school catchment area reported that 64% of school age children (5-15) were described as "White", 2% as "Black Caribbean", 4% as "Black Other", 24% as "Indian", 1% as "Pakistani", 1% as "Bangladeshi", 1% as "Asian Other" and 2% as "Other". The school takes pupils from Year 1 to Year 6, and at the time of the study it had approximately 352 pupils.

Mrs SW P1 qualified with a BEd and had 23 years of teaching experience with reception to Year 6 pupils and was currently teaching a Year 4 class.

Mrs SP P2 did not complete the background information questionnaire.

Mrs SS P3 qualified with a Certificate of Education and had 20 years of teaching experience with Year 3 and Year 4 pupils and was currently teaching a Year 6 class.

Red Primary School

See appendix A for a description of the school.

Mr RM P4 did not complete the background information questionnaire.

Mr RT P5 (also T5) qualified with a BEd and had 18 months of teaching experience and was currently teaching a mixed Year 5/6 class.

Green Primary School

See appendix A for a description of the school.

Mrs GF P6 qualified with a Certificate of Education and had 20 years of teaching experience with juniors and was currently teaching a Year 5 class.

Violet Primary School

See appendix A for a description of the school.

Mrs VH P7 qualified with a Certificate of Education and ad 10 years of teaching experience with reception to Year 6 pupils and was currently teaching in the 4+ unit.

Miss VP P8 (also T8) qualified with a PGCE and had 4 years of teaching experience with lower juniors and was currently teaching a Year 4 class.

Indigo Primary School

The school is situated on a housing estate in what was once a village but is now a suburb of Leicester. The LEA reported that 17.2% of pupils were eligible for free school meals and 0.72% had a statement of Special Educational Needs. The census data for the school catchment area reported that 97% of school age children (5-15) were described as "White", 1% as "Indian" and 1% as "Chinese". The school takes pupils from Year 1 to Year 6, and at the time of the study it had approximately 455 pupils.

Mrs IB P9 qualified with a Certificate of Education and had 16 years of teaching experience with reception to Year 6 pupils and was currently teaching a mixed Year 4/5 class.

Mrs IG P10 qualified with a Certificate of Education and subsequently obtained an MA Early Years Education. She had 25 years of teaching experience with reception to Year 6 pupils and was currently teaching a reception class.

Mrs IT P11 qualified with a Certificate of Education and had 30 years of teaching experience with Year 2 to Year 6 pupils and was currently teaching a mixed Year 4/5 class.

White Junior School

See appendix A for a description of the school.

Mr WP P12 (also T12) qualified with a PGCE and had 4 years of teaching experience with Year 3 and Year 4 pupils and was currently teaching a Year 3 class.

Mrs WB P13 (also T13) qualified with the Certificate of Education but subsequently completed the modular conversion to BEd. She had 16 years of teaching experience with reception to Year 6 pupils and was currently teaching a Year 5 class.

Pink Primary School

See appendix A for a description of the school.

Mrs PJ P14 qualified with a PGCE and had 8 years of teaching experience with nursery, secondary and Year 3 pupils and was currently teaching a reception class.

Miss PT P15 (also T15) qualified with a Certificate in Education but subsequently completed the modular conversion to BEd. She had 23 years of teaching experience with nursery to Year 6 pupils and was currently teaching a Year 4 class.

Orange Primary School

See appendix A for a description of the school.

Mrs OD P16 qualified with a BA and a Certificate of Education and had 7 years full-time and 10 years part-time teaching experience with junior and secondary pupils. She was currently teaching part-time providing reading support for pupils identified as struggling with reading.

Miss OR P17 qualified with a BEd and had 3 years teaching experience with Year 3 pupils and was currently teaching a Year 3 class

Mrs OC P18 (also T18) qualified with the Certificate of Education and had 20 years of experience with nursery to secondary pupils including 7 years as a Literacy Support Tutor. She was currently teaching a Year 5 class.

Mrs OB P19 qualified with a PGCE and had 3 years of teaching experience with Year 2 pupils and was currently teaching a Year 2 class.

Mrs OT P20 (also T20) qualified with the Certificate of Education and had at least 27 years of teaching experience with early years pupils and was currently teaching a Year 1 class.

Appendix C

Pilot Interviews

Pilot Interview Schedule

Introduction

I have just started some research about reading. I found that there is already a massive amount of research about different methods of teaching reading, and the controversy is never out of the headlines. But there is hardly any research into what **teachers** think about reading. **You** are the real experts, and **you** have the experience of dealing with children learning to read every day. I am interested in reading because it is so important, but I am not a teacher. I want to find out what really happens from teachers and so I would like to ask you about reading.

Will it be all right if I tape this conversation as I find I just can't write quickly enough to take everything down?

Everything you say will be completely anonymous, and when I have finished with the tape it will just be erased.

On the tape state: the date: the school: some identifier like "Interview 3"

Interview

1. What sorts of approaches and materials do you use for teaching reading?

- Do you use real books?
- Do you teach phonics?
- Do you use a reading scheme?
- Do you use flash cards?
- How often do you listen to the children read?
- How is their reading progress monitored and recorded?
- Do you use any reading tests at all?
- What do you encourage parents to do with the children at home?

2. How did you learn how to teach reading?

- How did your teacher training prepare you to teach reading?
- What were the most useful things you learned?
- How do you feel about your teacher training now?

3. During your career has there been a significant event or experience which has made you re-evaluate the way in which you teach reading?

- Can you describe the experience?
- In what ways has your practice changed?

4. Can you describe your experience of a success and of a failure in teaching reading?

- A success; an occasion when you felt a child you were teaching made a breakthrough in learning to read?
- A failure; have you ever tried a method of teaching reading which didn't work, and what happened?

5. What is your attitude towards

- i) Reading in the National Curriculum?
- ii) Current controversies in the newspapers about reading?
- iii) Parents role in teaching reading?
- iv) School policy on reading?
- v) Reading schemes?
- vi) Real books?
- vii) Phonics?
- viii) Flashcards?

6. How do you define reading?

- Do you think there are important prerequisites to reading?
- Do you think there are component skills involved in reading?

7. Finally, how confident do you feel about your own expertise in teaching reading?

- Are you happy with your practice?

Pilot Interview Handout for Teachers

PILOT INTERVIEWS

1. What sorts of approaches and materials do you use for teaching reading?
2. How did you learn how to teach reading?
3. During your career has there been a significant event or experience which has made you re-evaluate the way in which you teach reading?
4. Can you describe your experience of a success and of a failure in teaching reading?
5. What is your attitude towards
 - i) Reading in the National Curriculum?
 - ii) Current controversies in the newspapers about reading?
 - iii) Parents role in teaching reading?
 - iv) School policy on reading?
 - v) Reading schemes?
 - vi) Real books?
 - vii) Phonics?
 - viii) Flashcards?
6. How do you define reading?
7. Finally, how confident do you feel about your own expertise in teaching reading?

1. How old are you?

2. What age group/year do you teach?

Y1 Y2 Y3 Y4 Y5 Y6

3. Do you have experience of teaching any other age group/year?

Pre-school Y1 Y2 Y3 Y4 Y5 Y6 Secondary

4. Which teaching qualifications do you have?

Certificate of Education BEd BA/BSc plus PGCE MEd other

5. How many years teaching experience do you have?

6. Have you completed any courses or attended any INSET/continuing professional development concerned with reading recently?

Please specify:

7. Please could you complete the following statements, you may need to distinguish between statements which refer to children and those which refer to your own professional development.

As a teacher of reading I would like to develop.....

As a teacher of reading my priorities will be.....

Notes on Interview Transcription

Italics indicate simultaneous speech.

Bold indicates emphasis by the speaker.

(Brackets) indicate difficulty in transcription due to poor quality recording or very soft speech, thus there is some uncertainty about the exact words.

**** indicates that the recording was indecipherable.

[Brackets] indicate editing, either an omission from the transcript or notes for clarification.

Numbers are transcribed as words, except the child identifiers, which are written as Arabic numerals.

Wherever possible conventional punctuation has been used. Where the speaker has broken off and rephrased something, a hyphen has been used to indicate the unfinished nature of the pause where some shared understanding is left hanging in the air.

Pauses of less than 2 seconds are indicated by punctuation.

Pauses of less than 7 seconds are indicated in brackets.

Pauses of longer than 7 seconds are indicated by a break in the transcript.

Speech marks are used to indicate reported speech.

Quote marks are used to indicate intonation.

Pilot Interview with Mrs OD P16 Orange Primary School

1 March 1994

I: What sort of approaches and materials do you use?

T: Right, approaches. I rack my brains and use every kind of approach I can think of,

I: Right.

T: Because the children who come to me, are coming to me because they are failures. Because you've got um-

T: I just have the children with quite marked reading problems.

I: Who have been picked up by reading tests?

T: Yes,

I: Right.

T: The children with the lowest reading ages compared to their chronological ages, and some of them are as far as two years behind what they should be. And since they are picked up at about seven and a half, two years at that age is a very, very marked gap behind what they should be.

I: But they're not identified before seven?

T: Year 3.

I: Year 3, right. (4s) Right.

T: Right I use basically- my first approach is the story method.

I: Right.

T: I do this to get the children to understand that books can be fun. I pick all my own material, um for that reason. I hand pick my books with a special budget, aimed at being particularly interesting. I also have books with simple vocabulary, but an older story line, again because of the children who are coming to me, and books with very very good picture cues. So I use very much the story method. I start off with paired reading.

I: Where you read one page-

T: No, where the child and I read together,

I: Simultaneously?

T: Simultaneously. That way it eliminates failure, because if the child doesn't know it they just fade their voice and I supply the words and they join in again where they can.

Sometimes they don't know any words at all and it is really me reading the whole of the story through, but the next time we approach it they will join in with some words.

I: Because they remember them?

T: Because they- well, they remember the story line, at this stage it's not really reading, but they are pointing with their fingers, so they're picking up the one-to-one correlation, word- spoken word and sound word, they're getting left to right movement all the while, and they're getting the eye-hand co-ordination. I particularly use that method as well because it develops fluency and they begin to **guess** words within the context of the story. I also use phonics at a later stage. I introduce phonics once they're reading quite fluently.

I: Right.

T: Obviously that first method they build up a good sight vocabulary after they've got a sight vocabulary I start working on phonics. Usually the children know the initial sounds by the time they come to me, so I then start on the blends and- vowels sometimes they haven't picked up, that sort of thing. I do use flash cards, if children are failing in the paired reading, I use flash cards and if they succeed at that then I carry on-

I: How do you use them?

T: I've got one very simple small step reading scheme and I-

I: Which is?

T: Which is Upstarts.

I: Right.

T: And I give them the words that they're going to see in the story.

I: Yeah.

T: I try to get them to learn those words **before** they approach the book. But the chances are quite a lot of the words will be in their sight vocabulary anyway because they will have done some paired reading with me.

I: Yes.

T: When they know the **majority** of the words **out** of context, I give them the book, and then they read through, but I only use that as a last resort. I prefer them to read through books **not** having to approach the words out of context first. But some children just happen to manage that way more easily.

I: So you use the flash cards for preparing them for their first reader, but only when they've got *real problems*?

T: *Real problems*. And I will carry that on for maybe three or four books, and usually by that time the children are beginning to be fluent anyway and they're learning to use the pictures as clues.

I: And the context?

T: And the context, rather than rely on flash cards. So I drop the flash cards again quite quickly. For phonics I make up little mnemonic cards, you've seen them, [during I's observation] if I- for instance I've been reading a story today about a woman who goes **crazy**, so I pick up the 'see' 'are' sound 'cr', it's in context; she goes crazy on every page, and I draw a little card with 'see' 'are' on the front, on the back I write the word 'crazy' and the child has to illustrate the "**Mrs. Lather going crazy**", and that way when I show them the 'cr' sound they immediately think 'crazy' and they've got 'cr' in their memory bank. I do similar things, for example the 'oh oh' has two sounds 'oo' and 'oo' and I have for that- oh yes, I have a picture of a football and a boot.

I: Oh yes, they've got the different sounds.

T: So the boot is kicking the football and then the children remember that 'oh oh' says boot 'oo' and 'oo' as in football. And I do this with all the cards and the little mnemonics when they're reading if they come to the 'oh oh' sound, I just quickly show them the card and they work out the word from that.

I: So you have them ready?

T: Yes, we have them with them.

I: Is this, do you think, more intensive than it would be for most children?

T: Yes, a class teacher couldn't do this,

I: Yeah.

T: They're coming to me because of the problems so I- can be much more-

I: So it's very intensive?

T: Very intensive, yes.

I: Right.

T: Do you think I've answered all of that? Oh materials, what materials do you use? Most of my materials are hand-picked, ordinary reading books that you pick up from any book shop.

I: So, 'real books' then?

T: Yes, real books, not reading scheme. I've explained how I choose them-

I: Your criterion,

T: Yes.

I: Which is that their suitable to the age, but the vocabulary might be suitable for younger children?

T: Yes, and *with very good-*

I: *And with good stories?*

T: Yes, I do have a list that are- recommended for older readers with a poor reading age. But I tailor the books, I've got two boys who are older who are football mad, so I've just been and bought half a dozen books on football, and also you see they **know** the language; they **know** the words team, referee, rivals and so on.

I: So they're bought specially for them?

T: They are, yes. But I've always had the majority of boys, out of the numbers so these books will be used.

I: I'm sure.

T: I have a few others just for girls. But if it's something they're interested in, they have a general knowledge about, then they will already know a lot of the vocabulary and they will just read it in context. (4s) Then I have **one** reading scheme which is the Upstarts, which is very small step, and then I have the Ladybird "Read it yourself" books; it's almost like a reading scheme, in that that emphasises the one hundred most common words, and I use that for children that are not establishing a word- a sight word bank. Yes.

I: Right, so not everyone might use the Ladybird?

T: No.

I: But the people with sight vocabulary problems.

T: Yes. OK, I think that's answered question one.

I: Oh yes! I'm just seeing if there is there anything you've missed out! I think that's just about it. Oh parents, that was- how do you encourage the parents to help the children that you see?

T: Right, I have a large exercise book which I write in **every** time I see the child, and I insist that the parents write in it too, even if it's only to initial that the child has done the work I set. But, I write questions in the book so that the parents have got to respond, and I have a meeting with the parents and ask them **to write in the book**. I like the parents to **praise** the child's effort- also because then I open their book, if there is some praise there I can say "Oh, well Mum and Dad are obviously very pleased with you!", and then my lesson gets off on a very good start; it starts on a high note, the esteem is already being built, it's being built by me and by parents, and obviously that's half the problem with the children who are realising that they're failures.

I: I've seen a lot of encouragement,

T: Yes.

I: And coloured stickers,

T: Yes.

I: And using the exercise book is a-

T: Yes, right. I also have certificates which I hand out for particularly good readers, and then I've got some bookmarks which aren't especially for good readers, but they have nice comments on, just to boost their self-esteem, things like, "Thank goodness for so-and-so" or "Such-and-such is a lovely person to know", so that I can say something nice even if they're not succeeding at their reading.

I: Right.

T: OK.

I: So you feel that's very important?

T: Yes, very much- very much so with the failures, they have to have that esteem built up again.

I: Yes. How do you feel you learned how to teach reading?

T: Just by experience over the years. Um, I've always had a feeling- I've always enjoyed teaching reading, and I've always had a feeling that no one would leave my class not being able to read. It was just the way my interests lie. I haven't had any real training since leaving college, on teaching reading, except I have been on quite a lot of courses, you know, one day courses-

I: Where would these be?

T: When I was teaching full-time I lived in Berkshire-

I: Oh right, I see-

T: And so there was one at Reading, that was a **very** intensive course at Reading and then here I went into special needs work and did a lot of reading work there, and I've been on courses to the Literacy Support Centre here.

I: So you actually have done a lot since-

T: I suppose I have really, yes. [laughing] Inservice training, yes.

I: Did you feel your teacher training prepared you very well for teaching reading?

T: Yes, as a class teacher, but to go on- but to go on in depth, no. I think I needed the extra courses, and I suppose I picked up a lot over the years out of experience.

I: Yes. (4s) Right, um, oh. During your career has there been a significant event or experience which has made you re-evaluate the way in which you teach reading?

T: I should switch the recorder off while I have a think! [both laughing]

I: [laughing] Yes, sorry, that's why we've given you the questions beforehand, 'cause they are-

T: Have you switched it off?

TAPE SWITCHED OFF

T: -experience which has made you re-evaluate the way in which you teach reading. (6s)

Yes, one of the things that's happened during my career is that I've had children of my own.

I: Right.

T: One of whom started to read- easily, and then stopped and hit quite severe problems.

One of whom has read very easily herself, and it has made me look at the children differently and appreciate the parental input.

I: Through being a parent yourself?

T: Yes, very much so, and appreciate the parents' worries about their children.

I: Can you describe a success or failure?

T: Yes, I had one- well I have quite a lot of successes because the children come to me until they are actually reading. This term I had one child whose reading age went up over two years in one term.

I: Oh that's marvellous.

T: But you see they come to me on a one-to-one basis, I can diagnose their problems, and I can spend as long as I like, over the terms, obviously, I have them 15 minutes twice a week, but that length of time goes on until they are succeeding. So I can work on their specific problems until they are actually succeeding. I do have failures, in the sense that I do still have children who are coming to me four and a half terms since they started, because they have a **number** of problems and I'm not able to meet **all** of them. But every child that comes to me on a one-to-one basis **does** actually improve to some extent.

I: That's with just two 15 minute sessions a week?

T: Yes.

I: That's amazing! What do you think is the key? Is it the fact that it's run one-to-one?

T: I'm certain that it's one-to-one. Secondly, I think it's because I try to establish an extremely good rapport with the children,

I: Yes.

T: So the children want to succeed to please me, and I try to re-educate the parents to show them their role and the children want to, obviously, please their parents.

I: Yes, of course.

T: So it's- it's a number of things.

I: How do you go about re-educating the parents? How do you- what sort of mechanisms for meeting them and things-

T: At the beginning of the academic year, when we work out the list of children who are coming to me, I invite those parents in for an informal meeting.

I: Right.

T: I introduce myself, because they don't know who I am.

I: Yes.

T: I also offer some sympathy, because it's very heart breaking to know that your child has been picked out as a failure because they are going for reading support, and at that meeting I stress to the parents what an absolutely vital role they play,

I: Yes.

T: Because I only have the children for half an hour a week, they have the opportunity of hearing the children **every single day**. They also have the opportunity of building up the child's self esteem much more than I do. (3s)

I: Right, well that's great, lots of successes there. What's your attitude towards reading in the National Curriculum?

T: I ignore the National Curriculum.

I: *You don't have to worry-*

T: Because I'm a special case, I don't know if I should ignore it but I do.

I: No, that's fine. What about the newspaper controversies about reading?

T: On the whole, I think it's a good idea for things like reading to crop up in the newspaper.

I: Because it's important?

T: Because it is important. I think the sort of articles I've read have been generally useful as a parent, I think if it **involves** parents in the teaching of reading then yes, it's vital-

I: It's a good thing-

T: It's a good thing, but I think also newspapers can do a lot of harm by saying teachers aren't doing enough- so it's twofold.

I: Yeah.

T: The parents' role in teaching reading is absolutely crucial.

I: Yes.

T: And lots of parents don't realise, they just leave it to the teachers, and we have already spoken about re-educating them.

I: Yes. The school policy?

T: **This** school policy on reading?

I: Yes.

T: I think this school has got it very well organised. We have a **wonderful** reading scheme, in the sense that we don't follow one reading scheme. The children's path through the school- they follow **a** reading scheme for a **few** books, then they come off and they can go on to something that is parallel, so that they reinforce- they get a wider field, rather than strictly following a reading scheme and only learning the words within that reading scheme. If a child is failing on one part of the reading scheme there are lots and lots of alternatives, they don't have to struggle on with the **same** book until they know it off by heart. A whole reading policy is lovely and then the fact that they do have this reading support from me.

I: Yes.

T: The children are very lucky to have that, and then- children who are even further behind than the children who come to me do have the extra support of Mrs. C., who is much more- much more experienced, more carefully trained than I am.

I: So you don't see the same children, they're kind of divided up between you?

T: I don't see- originally Mrs. C. was employed before the reading support unit was initiated,

I: Right.

T: And she had the children who were failing by a **great deal**, the children who were statemented,

I: Oh right.

T: The children who were picked up by the educational psychologist. I was then employed to pick up the children who were not as much in need, but who still had reading problems.

I: Who had fallen behind?

T: Mrs. C. is now on the staff, so how this will be developed in the future I don't know.

I: Right.

T: Oh, I've covered the reading schemes haven't I?

I: Yes, they've got Ginn and-

T: We've got-

I: *Loads!*

T: *Loads* of reading schemes. Real books, the children always have access to real books because of the library and the reading failures have access to **wonderful** real books *because I choose-*

I: *Your specially chosen ones?*

T: I choose books that are humorous, books that appeal to them, some of them are a little bit naughty and they have rude words in them like "Big bum!" [both laughing]

I: And they love that!

T: Yes, exactly. Or "Dracula" or "Willy the Wimp" I mean I just have wonderful books. Phonics? Yes I approve of phonics, but in it's place.

I: Yep.

T: This doesn't apply to any of the other teachers because obviously they judge at which stage the children are ready for phonics. The children who are failing- I tend not to work on phonics until they are reading real books with some enthusiasm, then I go back and fill in the gaps.

I: Right.

T: And flash cards- I tend **not** to use unless the children are failing with my other methods, then I do use flash cards, they do have a part in my scheme in the sense that I've just had two children who I really couldn't get moving. I put them both on flash cards, and one was just absolutely wonderful at it-

I: Right.

T: It was his strong point. So yes, I used flash cards a lot, the other child I used flash cards to get on to the first one or two books, and then I took him off because he wasn't actually **thriving** on it. I judge by the child.

I: And you're happy to see other teachers using them, as and when is appropriate?

T: Um. Well yes, because I'm **presuming** that they're using them the same way, if they're failing then there's no point flogging a dead horse, and if the child thrives on them then great. I mean I can use an experience of my own little daughter, she couldn't learn the words flash card method, so what I did was I looked at the list of words she had to learn from the teacher and I wrote stories with those words repeated very many times, and my own daughter then read these little books with the words in so that when the teacher flashed the word card at her she could say it. But my own daughter could not learn words out of context, so I put them in context, and that was a very valuable lesson I had to learn, for approaching the children who come to me. Some children, even very, very bright children, can **not** learn words out of context. OK? (3s)

I: How do you define reading? Good question! (4s)

T: Being able to put into words, the symbols written on a page, and to make sense of the words, and to understand the meaning of those words. (3s)

I: Do you think there are prerequisites to reading?

T: Yes I think there are, in the sense that- I have a child today, who looked at a picture of a baby sitting in a pram, and when I asked him- we were just talking about the picture, I asked- I pointed to the pram and said "What is it?" and he didn't know the word.

I: So general-

T: So he has got to have- the children must have an extensive vocabulary,

I: Yes.

T: Before they can read. Pronunciation is also important, but to a lesser degree, once the children start analysing the phonetic breakdown of a word, then pronunciation is vital.

I: Yes.

T: And some children don't pronounce words at all well. (4s) I think also they must have familiarity with books, and they must have familiarity with stories to understand that the story does go on beyond that one page.

I: Yes I suppose, and has characters, and-

T: Yes. Yes, because some children really only say a list of words when they're reading, they're not actually reading a sentence or understanding a meaning at all, and those children aren't able to correct themselves, until they understand that they are actually saying something that is a meaningful part of the English language.

I: Great. Do you think there are component skills involved in reading? (5s)

T: Yes.

I: So I suppose you've answered this already really.

T: Well, I have really. I mean they must be able to relate pictures to words, pictures to the story, follow the story from the pictures. Then they must be able to- read the words underneath the picture, to correlate to the picture, they've got to be able to **hear** the sounds in words-

I: Yes.

T: To be able to break down the words, and some children's hearing is just not acute enough to do this, so you have to by-pass that.

I: Oh right.

T: They must be able to see- their visual discrimination must be very accurate, to correspond- shapes from one word to another.

I: I was interested- you said there some children can't break down words, but do you think they can go on to read successfully anyway, you said you by-pass that?

T: Yes.

I: It doesn't hinder them too badly?

T: It does hinder them, yes, they do have special problems, but I do have a child who has hearing problems.

I: Right.

T: He can't define the verbs, he cannot hear the different sounds, so to by-pass it, we go on to what makes sense within the context of the sentence, so he reads on and then goes back and gets the word- I mean sometimes he can read very long words but he can't read the three letter words, he will make a mistake on the three letter words because his hearing isn't acute enough to distinguish the sounds between the verbs, so yes, context is absolutely vital at that stage. Also you can train him to **look** more carefully and I would give him exercises, and I do want him to say the sounds, the different sounds that I'm showing him on the page, but he will use his eyes rather than his ears to pick up the differences.

I: Finally, how confident are you feeling about your own expertise in teaching reading? [T laughs] Well as you're a specialist-

T: Actually I still don't feel terribly confident.

I: No?

T: I still pick the brains, and I always will pick the brains, of all the other members of staff.

I: Yes.

T: First of all they spend more time with the children than I do, and they pick up things that I don't know.

I: Right.

T: Mrs. C. is much more experienced than I am, so I pick her brains. And I refer back to the teachers lower down the school because some of their techniques are out of my training, because I didn't train at that age group, but can be relevant, or can be adapted to the sort of

things that I do- I can just apply them at a different age range. But then on the other hand I do test the children when they come to me and I test them half yearly for their reading ages, just-

I: Right, what tests do you use?

T: Well, I use Burt reading test,

I: right.

T: I don't use it particularly to give me their reading age, but it's very useful diagnostically as well. But it does give me a guideline, they came in at this age range- reading age, and now they're at **this** reading age, and that does help to boost my own confidence, if I see a child progressing down the sheet-

I: Oh yes!

T: Then yes, that's **very** good. But sometimes I have dull moments when I feel I'm not getting anywhere, and then, yes, the child suddenly picks up a book and zooms through it, and I think "Ah yes at least I have got somewhere with this child". But I think because I am **only** dealing with the failures, and because they **are** hard work, you don't always get that wonderful feedback that you get in a class-

I: *When there's a breakthrough?*

T: *Where you see* children zooming on, and actually that's one of the drawbacks of my own job.

I: Right.

T: Very hard to keep my own confidence up-

I: So you need some of that praise *and encouragement?*

T: *Yes*, [laughing] and I must admit Mr D is wonderful at that, at boosting my confidence, whether he knows that that's how I feel-

I: Right.

T: Because there are days when I think, well I'm in the wrong job altogether. [both laughing] And yes, I do I need that, just as the children need it, because I'm dealing with the failures. OK?

I: That's- that's great!

T: Oh, there's more over the page, no there's not, thank goodness! I'm 44, [both laughing, then, whispered] don't tell anybody!

I: Thank you so much-

T: Oh it's a pleasure!

I: That's brilliant, it's so useful.

Pilot Interview with Mrs OC P18 Orange Primary School

16 March 1994

Interviewer: First question. What sort of approaches and materials do you use for teaching reading?

Teacher: As wide and varied- approaches and materials, as I can lay my hands on, and as are needed. Materials, they include newspapers; I'm referring to newspapers the children bring in things, and bits of papers.

I: Local ones or just anything?

T: Anything! No, I mean I try to link it to the topics, so that if it's a topic or topics, there'll be things in the newspapers that the children bring in, which is quite good.

I: Like the rain forest or-

T: Yes, yeah, we had quite a few things, we're doing space at the moment and then reading things about that, so that's quite good. Use periodicals as well.

I: What kind of periodicals?

T: All sorts really, we've got some of the Discovery ones that I'm using, sometimes I bring in, for my own class, things like Young Telegraph, stuff like that. (2s) Also I've got quite a few books that I've brought from home, which include puzzle books, poetry books. Got plays in school which we use.

I: They really like those don't they?

T: Yes, well they get them to read with intonation,

I: Yes.

T: Which- it saves you loads of really hard work saying "Well, but that sounds really boring". Yes, but they read expressively when you give them a play. Other materials as well, they use non-fiction too.

I: Is that just for project work?

T: Some of it is linked to the topic, but some of them actually choose to read non-fiction, and if that's what they choose, that's what they get. Picture books, even the most able readers enjoy picture books. I think they're crucial, (2s) because we don't always struggle through "War and Peace", we like a light read sometimes too, that's very important.

Approaches. Wide and varied, it depends what the children need. So if they've got a gap in their phonic knowledge I will give them some phonics to fill that in, I'll teach them how to chunk and blend. I'm trying to think, how to tackle compound words as well; how to split words down, some of that links with spelling work we're doing too. To use all the cues that are- available on the page, so if they are contextual, picture cues, initial sound cues, and then later on chunking cues as well.

I: What do you mean by?

T: Well if you're reading a longer multi-syllabled word, sometimes if you aren't familiar with the word from your own oral language, then you've got to be able to work it out, so you've got to have the phonic knowledge.

I: Where the syllables come?

T: You've got to be able to syllabificate, then to blend.

I: Do you use a reading scheme?

T: No. I don't.

I: Oh right, I thought the rest of the school-

T: Yeah. I've only just [been] taken on, but I don't anyway.

I: Right, fine.

T: They read whatever they like, basically. Anything that appeals, and what I do,

I: Right.

T: Is teach them how to test readability of a book.

I: Oh your five finger test?

T: Yes so if they use that, then they can check it's within their grasp.

I: Yes, that's quite clever, actually I've seen that before-

T: Well, it's easy, it works quite well for them, and it puts them in control as well.

I: So do you reject reading schemes then because you don't think that they're appealing or?

T: No, I don't reject them. They do have access to those, but they use them more as a home reader, there's a home reader set-up so they use those, but most of the time I prefer them to read books that are around and that they're interested in and-

I: So it's completely up to them as to whether to read them or not?

T: Yes, yes, yeah, I put them in control, yeah. Show them what to do and how to do it, and then off they go. They keep a running record of what they've read, which is very simple. At the back of their record of achievement, it's just the title, the author, the date they finished it, and they give it a rating out of three stars.

I: So they do that as well, *so you don't*-

T: *Yes, they keep that*, yeah, so I don't have to keep records either.

I: It's just the books that they've read?

T: Yes, yeah.

I: And home readers, they choose those from-

T: They choose those outside, there is a little red book that goes with that, that their parents can write a comment in. I write a comment in, but my comment is usually a question about the book they've read, so a very light question not an in depth question, sort of thing; "Did you enjoy it?", "Who was your favourite character?", that kind of thing. So it's focusing them on the book.

I: So you don't use it to communicate with their parents?

T: I do sometimes, yes. It's um, it depends on what I perceive to be the parents perception of reading and teaching reading. So we often get comments back like "This book was too easy for X".

I: I see, yes.

T: I try to avoid those comments, because addressing those comments in writing, it makes it very difficult.

I: You'd have to do an essay, would you?

T: Yes. So what I do do is; "I'm glad you found this book easy", writing it to the child.

I: Right, I see.

T: OK, if it comes back that the book is too difficult, from the parent I will write "I'm glad you've been sensible enough to bring it back, remember to do your five finger check and see if you can find another book at an appropriate level", so I try to keep it on that- on a par, so it's very difficult to have an in depth- teaching of reading.

I: So you keep addressing your comments to the child rather than the parents? *To avoid that-*

T: *I do do, yes.* Which is probably a bit naughty because I know lots of people actually address their's directly to the parents, *but I use it-*

I: *I can see why!*

T: Erm, yeah. I'm a bit evasive, probably, on that, and if there is any big problem they can always come in and see, but I tend to sort of give the child a pat on the back "Aren't you reading well!", you know, first.

I: Right, do you use reading tests?

T: Yes.

I: You've just introduced the Nelson?

T: We use the NFER from Years 2 through to 6 inclusively.

I: And that's six monthly, is it?

T: Twice a year.

I: Right. In the alternate forms.

T: Yes.

I: The purpose of that is to?

T: Is to do a sweep, just to identify the children who look as though they are underachieving. (5s) Or who have difficulties, they might not necessarily be underachieving, that's a different thing to having difficulties.

I: So which is it you- *is it difficulties rather-*

T: *To identify those*, who are- yes, who are experiencing difficulties, yes.

I: How often do you listen to children read?

T: Not very often, at this level, there isn't much time, but what I do do is set up lots of situations where they are reading. So they have silent reading three or four times a week. I try to do the same so they see me enjoying a book as well.

I: Right, so you're a role model?

T: Yeah, that's right. They've got the play reading and group reading sessions as well, that they have. (3s)

I: How often? It varies?

T: That varies, it depends how the groups fall, I re-group them each time. The "Take Part" series are very good because it actually gives you, discreetly inside the back cover, reading ages for each part,

I: Oh yes, I've seen those.

T: So I try to match them so they aren't going to be struggling, if I'm using them.

I: Do you use flash cards?

T: No!

I: Not at this age.

T: I wouldn't use them at any age.

I: You wouldn't use them at any age?

T: No, they're totally inappropriate,

I: All right.

T: For anybody, total waste of space. [laughing] Sorry!

I: Is that your experience of them that makes you say that?

T: Yes, well if you've got a child who can achieve on flash cards, they don't need them.

I: Right.

T: And if they can't achieve on flash cards they're a waste of space anyway because they're not going to make them improve, if they've got a weak visual memory, it's not going to help.

I: So they are completely pointless?

T: I think so, personally.

I: What do you encourage parents to do with their children? We touched on this a bit earlier but-

T: At this particular age group, to help build up the children's reading stamina, so that might be alternating pages. It might be reading the first chapter of a book to introduce them to the characters, and to set the scene. Before they resume reading the book, to ask what's happened in the story so far, so they've got recall as well. Not in any great depth, but just to ask that and to talk to them about the books that they are reading.

I: And this would come at the beginning of the year, at a parents evening?

T: I came here during the middle, so I will write those sort of comments maybe in the red book "Please ask mummy to read the first chapter to you to set the scene" that kind of thing, OK?

I: Yes. At this age, I suppose reading is not treated as a separate subject, is it just part of the whole curriculum?

T: Not for all of them, some of them actually need help and something focusing on, which is what we're working on at the moment. So those who came up at the bottom end of the NFER are now being assessed on a one-to-one basis.

I: Is that using the-

T: Using Burt.

72s PAUSE

I: So for them you would see it as a separate part of the curriculum; reading?

T: We're looking at how many we can actually withdraw to assess their needs, because they're quite individual,

I: Yes.

T: And it can't be done within the classroom situation. And assessing what their problems are, so we're looking at that.

I: So, How did you learn how to teach reading?

T: By doing it really.

I: Right.

T: I had a couple of lectures on it at college, (3s) which is all most people seem to have.

I: Were they useful or-

T: Erm. Not really, no, it was just actually really mostly by doing it-

I: Yes, yeah. [laughing]

T: And really most of the expertise has come from working with Literacy Support.

I: Which you did for seven years?

T: Mm.

I: So looking back at your teacher training, can you think of anything you really wish- [teacher grimaces] I know it's going back a long time- if you were training now is there anything you would like to have seen?

T: Yes I think I would have liked to have seen different approaches, in situ. But we didn't basically, we were just told about flash cards and we were told about phonics,

I: Oh really?

T: And they were the two main approaches.

I: Right. During your career has there been some- some identifiable event that made you re-evaluate?

T: Yes, I think there were two. Two events. One, would be when I started to teach infants,

I: Right.

T: They were reception infants, because I'd always had top juniors until that point, so reading was very much in focus. And to- what that made me do was to actually wonder why some children, who maybe had fairly similar backgrounds as regards literacy experience, came to school and some tackled it more easily than others.

I: I see. So, what did you conclude about that?

T: Well I didn't actually **conclude**, but it made me **query**. I don't think anybody's ever concluded why that happens.

I: Mm. [laughing]

T: I think people are still exploring that, and nobody really comes up with any concrete answers.

I: Sorry, I suppose you'd be made if you could answer that!

T: Yes. It's all right. I'd not be here any longer! [laughing] And the other way- the thing as well was going to work for Literacy Support.

I: So (you learned-)

T: Well, because that was- it just gave me the opportunity to just focus on reading, and language development, which was a wonderful opportunity. I think it would benefit lots of people to be able to do that, to be honest.

I: You think it would be a good idea, what, if every teacher-

T: Yes, in a way because it was like- a mega sort of course, in a way, just on how to teach reading, because different children respond to different approaches

I: Yes.

T: And it gives you the chance to try them all out, or it did do, I don't think it would work like that any more because of the way it's funded. (2s) And because Literacy Support doesn't exist any longer. (4s)

I: When you were working for them what kinds of things did you do, because I don't know very much about it at all?

T: Right, well initially, I was put in as a reading tutor, which was working on a one-to-one basis, most children you had for an hour, and because you had the hour that gave you the opportunity to go into every aspect. So it was writing and spelling as well as reading, phonics and so on.

I: That was at several schools, throughout the county?

T: Oh yes, that was a peripatetic job, yeah. And all of that tuition was on a one-to-one basis, those children had been assessed by area heads, who tested their suitability for a one-to-one approach.

I: Which is how much they would benefit (from it)?

T: Yes, in a way, because at the end of the day you've got to be cost effective whatever.

I: Yes.

T: And largely the issue was the dyslexia issue, that reared it's head, but not that many are dyslexic, but if they were particularly contentious cases, which some children were, then their needs were addressed. I also had two stints as an area head, as an acting area head, in which I was actually doing the assessments of children with difficulties, so I saw it from the selection point of view, if you like.

I: Did you come across much dyslexia, do think there is a definable thing that is dyslexia?

T: Yes, I think it's definable, but I think people have different definitions of it, and I think it's very broad.

I: Yeah. (4s)

T: But I do think it's very real, and whether it's real in actuality or real because it's what people are on about, and it's because what they perceive to be the problem, it doesn't matter, *it's still very real*.

I: *It doesn't invalidate the problem-*

T: No, I don't think so, no.

I: Right. A success and a failure-

T: In teaching reading?

I: Or something- a method you tried that didn't work, or-

T: Well failure, I think flash cards are an utter failure.

I: Right, that's a good failure.

T: Utter, underline that numerous times.

I: So when you- you did try it with children and it just-

T: Well-

I: There was no progress at all-

T: No, not really, I mean I've seen people trying it, and when I was in the- yes I have tried it, yes. Because when I first went over to teaching reception infants,

I: Oh yes.

T: The method in the school I was at, was to have a word tin with these wretched cards in, and the children weren't allowed to start a book until they'd got all the words. Well, it soon became very apparent that there were some children who, in a million years weren't going to get the words, and so therefore they would never have had a book. So what I did was I gave them the book anyway,

I: Right.

T: And it soon became quite apparent that once they had the book they could probably read the words in context, but may be not identify them on the flash card, so that is why I think flash cards are a waste of space basically!

I: Using them like that is, um putting the cart before the horse, or whatever?

T: Yes, yes, well it was in my opinion, but it was a method that was widely used, but the failure rate is **abominable**.

I: Is it so widely used now?

T: It's still in use. I still- I mean last term I was still coming across schools that were doing that, so it is still in use.

I: And how about a success?

T: A success really. Oh I think the greatest sense of success is to have a child who's had really chronic reading difficulties, but at the end of the day they end up being a readerholic.

I: Yeah.

T: And to me that is wonderful.

I: So that love of books in them is-

T: Yes, whatever their level- well to show them how to choose a book. I mean I can think of several children, and a lot of it is just because you've had that one-to-one time and experience, and so at the end of the day they sit there and they just- you can't stop them reading, it's wonderful. That gives me the biggest buzz out of anything. (3s)

I: I've got this whole list of things, your attitude towards-

T: Towards reading in the National Curriculum? I don't think the National Curriculum gives enough space, but that's not the language side, that's- the National Curriculum's a broad umbrella, it doesn't allow sufficient space for reading, particularly at the bottom end of the school.

I: So, how do you in the documentation, **** guide lines-

T: No, because of the subject content across the broad National Curriculum.

I: It's squeezing out reading?

T: Yes, it's squeezing out-

I: Right, I understand.

T: But I think a lot of what it says about reading is actually quite good, in that it's drawn people's attention to it as a broader thing, and also that it actually positively discourages sticking them on a scheme and sticking to it. In that it's saying they've got to have more than one genre and so on, it broadens the whole thing out. Which I think is quite positive, yes, I think some of it is positive.

I: Newspaper controversies?

T: Well, teachers are to be blamed for **everything** in this world, we've got very broad shoulders. And I think you do get controversies blowing up, I think some are well founded, I won't dispute that, but I think a lot actually bring to the fore fear in people that is unnecessary and unwarranted. And you can tell when there's been an explosion of interest in the paper,

I: *Really?*

T: *Well* you could do doing what I did before. Yeah, because the referrals used to mount, noticeably,

I: From parents, or from the teachers?

T: Well, from schools, but initiated by parents probably.

I: So a sort of **panic** swept the nation?

T: Yes, engendered, yes suddenly, you know, could their child be dyslexic? Is that why- particularly with the dyslexia issue anyway, could that be why they aren't learning to read?

I: What about parents role?

T: Parents role? I think we've covered that a little bit haven't we, but I think it's important to say as well, the parents role in teaching reading is crucial, but you have to be **aware** that it can be very stressful as well, for the parent and for the child. And I think if that happens

you are better off- you've got to communicate with the parents, so you've got to give them some support, but there are occasions when even that doesn't work and I think at that point- I think-

I: What do you do?

T: I do what you shouldn't do really but I tend to sort of steer it away from the parent, but not directly saying "You can't read to your parents", but to sort of diffuse the situation, because it can happen that it just becomes explosive, and I've seen it time after time.

I: So, you speak to the child rather than the parent?

T: No, I speak to the parent, it's very difficult, it's an extremely difficult situation. But I think initially you try to reassure the parents, and you try to give them something that they **can** do, and you try to communicate with them what their expectations should be, and you try to communicate with them that if it is becoming a contentious situation, back off, you read, you take over, don't let the child struggle. Usually that works, but I have had one or two cases where it hasn't, and it doesn't matter how hard you try, you've got a communication problem yourself, actually getting through to them what you want and what to expect, and the tension mounts for the parent and for the child.

INTERRUPTION BY CHILD

T: Sorry, thank you. Is that OK?

I: Yes! Of course.

T: So- and I think if that's the problem, I think- (3s) you're almost- you've got to still carry on teaching the child, but you're almost better off in a way to diffuse it if it's that acute, by maybe making it into a two way thing rather than a three way thing.

I: Right, I see. What about the school policy?

T: The school policy needs reviewing.

I: Which you are in the process of doing?

T: Well, we're doing spelling at the moment, I can't take it all on board *at once*,

I: *At once*,

T: The spelling is monumental enough-

I: Indeed!

T: I mean, I've done the policy for that, and now we're resourcing it, which is quite a large feat in itself.

I: Right, you feel it doesn't need working on?

T: Yes, I think it does, and I think particularly at the junior end, maybe. Er, yes, yeah I do.

I: Oh right, you've said reading schemes-

T: Yeah, some- yeah I mean I don't mind, I think there are some very good ones, but I think you have to be very selective, and you shouldn't put a child on one and leave it on one and leave it in a vacuum from all other things, I think that's quite important.

I: And that happens?

T: I don't think so, no. I hope not, I hope not.

I: (You've got lots) of schemes?

T: Yes, and we are restocking the library at the moment. So, that's something else I'm doing at the moment.

I: You're very busy at the moment! [both laughing]

T: Yes, and I shall be for ever more I think.

I: Phonics?

T: Phonics are crucial, because without them you are actually taking away something that the child can use to help them work out words and build words. But what they shouldn't do is become over reliant on them as a sole way of reading, that's when the alarm bells start to ring, and that's when you get children who just sound out every single word; so you get words like 'want', 'wah' 'ah' 'en' 'teh' because they're breaking everything down.

I: So they need sight vocabulary as well?

T: Yes they need sight vocabulary as well. Reading books.

I: *Right.*

T: *Right.* Apprenticeship system.

I: Yeah?

T: So by having the books read to them, they need voice print match to start with, that's established by reading to the child, with the teacher pointing to the words as they go, so that they can see that a word in speech is a word in speech is a word- correlates with a word on the page. And by **loads** and **loads** of book based activities, so they are constantly- so that the book isn't just seen as a reader and finished but lots of book based activities.

I: And that's right through the age range?

T: No, no I don't think they need lots of book based activities as they become- I think you also need to give them books without book based activities as well, so they don't regard every book as a- it's going to have work on it, they should also have the pleasurable side, certainly as they get more competent they don't need very many book based activities.

I: So in the early years?

T: Early years particularly, and depending what level of reading they are at. But it does help reinforce vocabulary and so on.

I: Right, well I think we've dealt with flash cards.

T: Yeah, know that!

I: How do you define reading?

T: How do I define reading? Um! It's being able to decode what is on a page in front of you, and not just that, but actually interrelating with what it is, whether it be fiction, non-fiction, whatever. So it's actually having a relationship with what is on the page.

I: Yeah. Do you think there are prerequisites to reading at all, skills that the children need to master before they can master reading?

T: Yes. (6s) That's very broad, yes there are, um- I think they- I really don't know how to put this, but I think they have to have reached a certain state, which lots of people would call a state of maturity,

I: Yeah.

I: Before they are ready to read. But what you cannot do is just leave a child to reach that state on their own, you can bring about that state. So, it's very easy to say, "Oh this child isn't mature enough to read",

I: But you don't think it is just maturational, you think you need to develop-

T: No, no there are things you can do that need developing.

I: What kind of things?

T: I think there are all sorts of things that they need; their oral language skills are crucial, but then you can have E. 2 L. children, who can then- but they've still got the rhythm of language in their own cultures and so on. So they do need to have oral skills, they need to have visual skills as well, they need to have a visual memory, and you can have a child who probably has a weak visual memory as regards to words but maybe has developed in other areas. But, I still think visual memory is important. And I still think you can use teaching reading as a way of teaching visual skills.

I: Yes.

T: And visual discrimination. Rhyming, rhyming skills, all very important. (4s) Loads of oral language skills?

I: *Right, that's-*

T: *Is that enough* for you?

I: Yeah-

T: All right? So there are lots. [both laughing] Right.

I: Do you think there are component skills or do you think reading is the skill.

T: No I think there are lots of components to reading. Do you mean as in phonics? I think there are all the cues that you use are all components.

I: The cues, picture cues, context cues?

T: Yes. But it's being able also to use the appropriate cue at the appropriate time.

I: That's a skill in itself.

T: That's a skill that needs to be taught for most people, some manage it but most need to be- that's where the teaching comes in. Is that what you meant by components?

I: Yes, well I suppose it's the things we're talking about like visual discrimination and using context, I suppose you could say that those are perhaps what-

T: Right, right, right, yes, they're all components too. (5s)

I: Right, oh finally, how confident do you feel about your-

T: Yes, I think I know where I'm going,

I: Yes.

T: But I'm still open to people- I mean you also have to appreciate that you've got to keep an open mind because what works for one doesn't work for another. So, that's why you need to use the whole range.

I: But they're not incompatible are they?

T: No, no, yeah. Are you happy with your practice? Yes, yes, I think they're **liking** reading, they're **enjoying** reading, so within here- but I think as a school, I think we need to do a lot.

I: I see, so that's your priority really?

T: It will be, once the spelling is established, yeah, but spelling I think is more than enough for this year. I want to move into reading, I think, next academic year.

I: It's going to be a long process?

T: Yes, I think it is. Yes, there is a lot of good practice going on, but how easy- I'm also aware of how easy it's going to be- to have it across the board on such a large staff and in such a large school, I'm not sure.

I: Difficult.

T: It is, it's difficult with the spelling, it's difficult with everything, but it's worth thinking about.

I: That's everything, that's a lot! [both laughing] I've got a lot of things there to be thinking about.

T: Yes, is that all right?

I: Yes, that's brilliant. Thank you ever so much, that's given me a lot of things to think about.

T: Right, they're good questions, I mean they're sort of thought provoking, aren't they?

I: Do you think- I'm wondering whether these could be dropped really, [Questions 5 and 6] do you think they're very useful for getting at-

T: Yeah, I think they're worth-

I: Yeah?

T: Because they certainly make you focus and think. Yes I think they're good questions.

I: They're difficult, but I suppose that's because they do- [make you think]

T: Yes, yeah.

I: I know they're difficult because-

T: After having had so long with Literacy Support, because I missed the onset of the National Curriculum, and then coming back in, I mean it's really like a student coming back in really, because all those classroom teacher skills, I've got to re-learn, because I've lost those, I've acquired other skills-

I: You've lost those?

T: Yes! It's taken quite a lot of re-learning.

I: It's not like riding a bike then, you never forget?

T: No, I think, you know, you do- you're sort of out of it and it's quite different. But-

I: You're specialised?

T: Yes that's right, but it also makes you appreciate that it is very difficult to be an expert in everything, which is what the National Curriculum requires.

I: Yes.

T: And- and that's another reason why I think it's crucial to have specialists for those children.

I: So subject area specialists or reading in particular?

T: Well, reading particularly but I mean even mathematical specialists too, you know where you've got children with maths difficulties. Because you can't be an expert in everything and when you've got thirty in a class.

Pilot Interview with Mrs OB P19 Orange Primary School

22 February 1994

Interviewer: What sorts of approaches and materials do you use for teaching reading?

Teacher: Everything and anything that I can get my hands on. The school's approach is very phonically based, but coupled with that is a look-and-say approach the vocab is related to the reading scheme.

I: So this is the Link Up scheme?

T: Link up, and we also have Ginn.

I: Right.

T: *So it's-*

I: *So you use* both of them?

T: So it's look-and-say approach which gives them words like was, went, in, as-

I: The very frequent words?

T: The frequent words, and then also, the words that appear in the reading scheme like postman, policeman, girl, name, comic.

I: Specific vocabulary items?

T: Specific vocabulary for the reading scheme and general words that you would need reading all the time anyway.

I: Right, so that's the- that's the look-and-say?

T: Yes, so we would have phonics where there's lots and lots of sound work, erm, we watch Words and Pictures-

I: Right.

T: Which gives quite a good focus for it. It's also tied into the handwriting because we're-

I: *How's that?*

T: *-covering a handwriting pattern*, that you relate the handwriting pattern to specific letters and we talk about the sounds that those letters make.

I: Right.

T: So it's related to that as well.

I: So you do them simultaneously then?

T: That goes on, and then the children also have sound cards, which are round the corner.

I: Sound cards?

T: Which are levelled according to how they are dealing with sounds in reading, some of the beginning cards just relate to the specific individual sounds at the start of a word; so a card might be to do with 'ess' words, or it might be to do with 'tea' words, and then they go on to the ends of words.

I: Initial sounds then end sounds?

T: End sounds then middle sounds.

I: Then blends?

T: Then blends- and I always try to stretch the children within that so that if it's a blend, I mean for example one of the children's very able, she was doing 'bl' words the other day-

I: Right.

T: And the card gave her 'bl' words and she had to make the 'bl' words, and then I told her to go away and find a dictionary and see if she could find any more 'bl' words in the dictionary, and then they'd make sentences so it's- the reading is very much tied into the writing as well,

I: Yes.

T: You **can't** separate the two, not at this age, anyway. Because they've got to- you're trying to pull all the skills together of reading. For the children who are finding reading more difficult we play lots of games, (2s) share big books, that's a very important part. My children have also just recently made their own story books,

I: Yeah?

T: Which they- they're on the bookcase now and they now choose to read.

I: They choose to read each other's books?

T: Yes, yes and we made it in the form of a beginning, a middle and an end so I'm also underlining story writing at the same time as reading skills. And then we did a class book, where according to the number of children there were in the class that day; there were 19 children-

I: Right.

T: I had 19 pieces of paper and we wrote a sentence, they told me the story and I wrote it down and then every child had a piece of paper to illustrate. So, "Once upon a time there was an alien", and one child drew the alien picture "He went to the moon", the next child drew as far as that picture and then we made it into a book and they then sit and read that book as well, so its making-

I: So they're making their own materials?

T: Well it makes them think, they feel much more comfortable with it because they know "Oh we made that book, it can't be difficult because we made it", you know its sort of trying to give them confidence in reading.

I: So they are popular?

T: Mm, and I also try and have a variety of books on the bookcase for them to read.

I: As well as the library?

T: As well as the library and then they take-

I: As well as their home books?

T: They have their book which they read to me in school which goes home when they have finished it, and they have a home reading book as well. It's just trying to do everything, when they're actually- the best time for the teaching of reading, I've found, is the one-to-one time when they're sitting with me and I'm hearing them read because that's when you can meet an individual child's need, just as a child who- I have one child who has a very sight orientated approach to reading, so when she gets to a word she doesn't know she really struggles because she doesn't use anything else other than knowing the patterns of words, she has a sight vocabulary, so I'm trying to get her to think, not necessarily about **just** sounds, but also get her to think about what the picture might tell her; what she just read, so its context as well so you are developing all those skills at the same time.

I: So you feel the critical bit is in one-to-one when you are listening to them reading?

T: Definitely.

I: So its not just to see how they are getting on, *its teaching*?

T: No, *its teaching*, it happens at the same time then as well. I mean we do lots of- they are being taught to read all through the day-

I: *Yes, of course.*

T: Everything I do is teaching them to read but that one-to-one time is the time when their individual needs are being addressed.

I: Right.

T: The children who are really struggling, they wouldn't get as much one-to-one in that sort of way of the teaching of reading, we'd play a game, I have a bingo game, which is-

I: In groups?

T: Yes, but not bigger than four, but I've found they're much- the children who are struggling are much more confident in that sort of situation than if you have them one-to-one, they feel too much pressure in a one-to-one, so if you put them into a group **game** then they don't worry about it, they'll just have a go at the game and they're not aware that

they're with you. And it's a bingo game and they take it in turns to pick up a card and if the letter that they've picked up is the one on their card, they have to say what it is and then they can lay it on their card. So if they pick up an 'ay' and they've got an 'ay' they say 'a' and they can put it on their card and then I would extend it by saying "Well can you think of a word beginning with that", so that moves on then to a common words bingo game, where they've got a card full of common words in front of them and if they pick up one that they've got on their card they can say it and put it on, and you try and get them to put it into a sentence then; so it's- developing different skills with different children at different times.

I: So, how often do you listen to the children read?

T: Twice a week. [firmly]

I: That's fine! Twice a week.

T: Absolutely **definitely**.

I: So **at least** twice a week?

T: Yeah, and they would get other- if I get the chance, I try and hear certain children, *it might not necessarily-*

I: *So it depends on them?*

T: It might not be the struggling children, it might be children in the middle who are just starting to read tend to need extra practice as well in terms of putting a bit of expression in,

I: Right.

T: Or trying to develop a bit of fluency- they can decode a list of words; you know "I. Went. To. The. Park." but if you say to them "What did he do?", then they don't understand, so its trying to develop- you've got to be aware that- I mean, you know, the brightest readers you've sort of got Level 3 of the National Curriculum in mind where its asking them to infer and to question and to put themselves in the position, and also- I've got a little boy who is a very able reader, but he gets quieter and mumbles further down into the page as he's reading to me, and Level 3 is requiring them to read out to an audience, so you're trying to keep in mind *all these things-*

I: *So it's so many things; performance and everything-*

T: Yes, everything as you're hearing every child read.

I: How do you record how-

T: I have a card which the child keeps that just says what page they're on, so if-

I: In their book?

T: Yes, so if somebody came into the room-

I: Yes.

T: If somebody came into the room and I said "Could you hear so-and-so read", then-

I: *Right.*

T: *Then they* could see it's dated and the pages I heard read, and then I keep my own file which has- actual specific comments that I-

I: For every child? That's very thorough!

T: Yes, for every child, [T shows I the records] I mean, this is the old teacher but this is me, and I- I mean I end up writing so much I forget how far we got I think. But its on the card anyway so that's OK. But I try and write a comment every day, every time I hear them read just so I can see exactly where I'm going-

I: So it's a very in depth record of how their-

T: Mm, yeah, mm and it would go from something like- P. when I first heard her read I was writing things like "Smashing reader" but- and I mentioned that she sounded out as but then as I got further down the page I'm saying I'm quite worried about word attack, she's the one I was saying to you she's got sight vocabulary skills, and so I also try and, if necessary, give myself an action for the less able readers-

I: A plan for the next stage?

T: I would write down what I think would be a good idea to cover with them next, what they could do next, you know, somebody I've written- I've done "They shared a book", so then an idea might be that the next time that they get with me they share a book again at the beginning to give them confidence and then we try something else, so, I try and note down for myself- and I just try and keep a record there of exactly what is going on with that child. But that is quite confidential.

I: Yes.

T: If somebody came into my room they wouldn't get access to this- mm, unless it was somebody that- mm, it was a different situation- I mean, in my previous school we used to have welfare assistants and they did quite a lot of work with special needs, so they'd have access to it. But if I had a Mum hearing readers, or a junior child hearing readers, or just somebody who was in for the day helping me, they wouldn't get access to this so I am very honest in this. *It's a really-*

I: *Right*, it does go on to the next teacher?

T: Yes, it does go on to the next teacher and I would be more than happy for- I don't write anything I wouldn't be happy for the parents to see in here, but its confidential in terms of; I'm the one who writes in it really in the classroom. And then I also keep a reading record-

I: When you have heard them read?

T: Just to check that every child is being heard at least twice a week. A red tick is always me, and then if anybody else hears them I *have a different code*.

I: *Parents or?*

T: Yes, for that sort of thing so that I know that they're- and I also note down their changes of book in there so I can see the progress.

I: You've got a tremendous amount of records!

T: When I first started teaching I used to keep one of these [showing records] and I found it very difficult to keep the notes at the same time, now I'm used to it so I don't think about it.

I: So-

T: But I think it's important because if I was away for a month- then if a teacher came and took over for a month or for a day they can see exactly what I'm doing.

I: Do you use reading tests at all?

T: No, they do in Year 2.

I: Right.

T: That's sort of prescribed by the school.

I: What do you encourage parents to do, because I know you have a book that they take home?

T: A home reader. That has a little note in the front of it and it's just basically encouraging them to share the child with the- share the child! Share the book with their child. Read it together if the child seems to be struggling, talk about it, so it's, it's making a focus point of it, not just "Read this book!", you know, it's trying to get them to discuss the book, to **share** the book with the child as well.

I: So you can leave little notes in that-

T: Yes, we communicate, you communicate with the parents through that.

I: And the parents send you notes back?

T: Yes, yes it's quite a good communication and it- if there was something you specifically wanted a parent to work on- I mean in one child's book I'm mentioned you know, they could play games of 'I spy' and that sort of thing you know.

I: And that goes on throughout the school?

T: Yes.

I: Do you use real books?

T: Yes.

I: That's in the reading corner?

T: Yes, there's a combination- I have mainly real books in the reading corner, there are a few scheme books like Oxford Reading Tree which I'm very fond of, but it isn't the base scheme here so I feel quite happy with having that. But there the majority of the books in the bookcase are real books.

I: But their class reader is the Link Up or?

T: Yes, Link Up or Ginn. Yes. So again it's just firing everything possible at them. [laughing] And I quite often- something else I do on the carpet is I read the Oxford Reading Tree books to them.

I: Yeah.

T: Mm they really enjoy the stories in those and then I read it again and they join in with me.

I: Right.

T: And I would extend that to the poor readers, that they- I would read something like "Not now Bernard" and every time- I don't know if you know it but it's very- it's got **"NOT NOW BERNARD!"** *throughout it-*

I: *Yes, and everyone shouts it out.*

T: And with the poor readers you get them to do the "Not now Bernard" bit and then gradually try and increase it so I'd say "Not now Bernard said ____" and they'd say "Daddy" you know relating it to the picture and that sort of thing so the sharing books is a very- so I mean there is the one-to-one time but it just- all throughout the day-

I: *Yes of course.*

T: *You know* I mean the fact that I've got notices all over the place in my handwriting and this morning we were talking about size because they've been doing some work on colouring from squares in **** sizes, and we tried to think of all the length measuring words we could think of and we- I've just shoved them up on the window straight away and there's that as well, it's a-

I: Oh yes, yeah, I can see! How did you learn how to teach reading?

T: I'm not sure that I did.

I: But you have learnt, but you don't feel that you were taught?

T: No, when I was on teaching practice and at college we used to get sort of lots of theory I suppose, thrown at us. But I found on my teaching practices that the teacher didn't expect me to be solely responsible for the hearing of readers and it's only really by hearing the readers and getting the day to day contact with the children that you think "Ah! I need to go and do that, because those three children have shown me that they struggle with X" or-

I: So even on teaching practice-

T: Even on teaching practice I heard- well I used to hear readers but it was a very low key affair. And that was one of the biggest things I found between teaching practice and really teaching a class.

I: And was it difficult?

T: Yes it is. I mean in this class with twenty-two children it's not- but in my last school I had 30 and in the juniors some of the classes are thirty-five and the new Year 2 are thirty-five. And to give them- I mean you can't- I- when I first started hearing readers I used to think "Where do I fit it in?", and now I do at playtime, assembly times, lunchtimes, and I maybe, if the activities the children are doing in the room are very low key and they don't need me- I mean there's no way you could say for a whole day they won't need me but there might be a ten minute patch where everybody can get on. I might try and squeeze a few readers in there,

I: Right.

T: But I've found you have to be very careful over the children you select at that time, because if you choose somebody that is distracted then they're far more interested in what's

going on in the room, so you need the quiet really to give them that time. And I suppose on teaching practice you've still got the support of knowing there's another teacher in the room, erm. As regards what we were actually taught at college, as I say it's very theoretical and I think it comes down to the argument- to the thing you read in the press that the actual teaching of reading is very difficult to pinpoint it's so abstract-

I: Yes.

T: And every child seems to have a slightly different way of learning to read, or the way they approach books, I mean- you know- I had a child in my class, in my previous school who was reading "Charlie and the-", and she was 6, "Charlie and the Chocolate Factory" anything you put in front of her- with full comprehension, she could read it. I mean I used to sit back and love hearing her read because it's like having a story read to you, she could infer, she could read to an audience. She didn't know all her sounds though, she only knew something like twenty sounds if you quizzed her on her sounds 'cause she didn't read by sounds. So-

I: So every child is different?

T: Yeah, every child is completely different,

I: *And you have to have a different approach?*

T: *And I suppose* you can't be prepared for that can you? Other than telling you every child is different, although we were very much told at college "Try everything you can, give them- just bombard them with everything", not to the point where if it's a child who is struggling don't push so much on them that it's too much, try and streamline it in a certain way but don't just think this is the **only** way to do it, phonics is the only way, or look-and-say is the only way or context or- try and just use everything possible to encourage them to read, so

I: So right from the start you've been quite eclectic?

T: Yeah, that's what we were taught at college; go for everything you possibly can, *so I suppose they were right*

I: *And you think that's right?*

T: Yeah, I think it's right.

I: Mm. During your career has there been a significant event or some experience that's made you re-evaluate the way you teach reading?

T: Well I suppose this is only my fourth year of teaching so it's a difficult question.

I: Because you feel you are still using the same-

T: Yeah, I think, as I say, the ethos at college was "Go for everything", and I still try and do that, so I suppose there hasn't been a dramatic change. Um. Different schools have different approaches and this is my second school.

I: What contrasts have you found here?

T: It's more- easy to pick up on here in my last school it was very much a case of right, OK, fine, go for it! Whatever you think is the right way try and do it.

I: So you had a lot of personal responsibility *for the methods that you-*

T: *Personal responsibility*. And also there was more- we sent reading books home every night, it wasn't a home reader that went home once a week, the reading book I was reading with the child in school went home that night and was read by the parents.

I: And that was scheme books, those-

T: Well no, well we didn't have a scheme as such, it was more an adaptation of the Cliff Moon set up where it's colour stickers, so within green stickers which is a low level sticker you could have every possible scheme imaginable, so they got quite a wide vocabulary quite early on.. For the children who were special needs who were struggling we tended to stick to one scheme, we had Oxford Reading Tree, we had New Way to try and meet their needs. Here, I still feel I'm feeling my way 'cause I only started in January, but I like the approach here,

I: Yeah.

T: I'm quite happy with Link Up I think after the Easter I'm going to start to spread some of the children onto Ginn as well, sort of put a bit more breadth into it. But um- I also used to have a lot of Mums coming in to hear readers.

I: At your last school?

T: Yeah, but here I think they feel that that isn't particularly appropriate for Mums to be doing, unless you are absolutely sure that they know what they're doing, because it is such an important thing. I don't feel particularly strongly either way, but there hasn't been anything other than just different atmospheres. And as I say, I think I came in with the National Curriculum, and I came in at college with them saying just try everything you possibly can.

I: And that's *good preparation*?

T: *I think it would be difficult*- I think it would be difficult to go to a school where they said "You have got to teach reading by phonics and no other way" but that- I think- I don't think very many schools are doing that anymore.

I: Yeah.

T: It just- it can't be done.

I: Can you describe your experience of a success or a failure in teaching reading? This is one you've seen earlier, this is quite difficult.

T: A success has been with a child in this class who, when I started reading with her-

I: Yes.

T: Wasn't reading at all, and she still isn't **reading**, but she's progressed so that's a success in that-

I: How do you mean?

T: When I started she knew a few sounds, but wasn't really applying them- and- and it had sort of come to a bit of a dead stop. So, I tried doing some word building with her, so for example 'pee', 'aay', 'tea', saying 'p-at' makes 'pat' and- and 'at' would be, you know, 'a-at', trying to build up that sort of way, and I found she was still finding that very difficult,

I: Yes.

T: I could give her all words ending in '-at' and it still, even if I put an 'aitch' in front for 'hat' she'd still say 'her-ah-teh' even though we'd talked about it being '-at'. So I tried a different approach which was giving her sight vocabulary first, making her learn that 'aay', 'tea', is 'at' that 'i-neh' is 'in', and then I found that when I came back to doing the word building with 'at' she could apply that more easily to it saying 'hat' and 'pat' and 'cat'.

I: So a change of approach lead to a breakthrough?

T: Well, just sort of starting one way, and then seeing that wasn't quite right, going that way, but coming back to it again. And she was- I mean it's a very tiny success, because I mean I don't feel happy enough to give her a reading book or anything yet, but she's- And in the same way with another boy who could read the sight vocabulary words for the scheme, you know policeman, car, lorry, but if you put a book in front of him he didn't know 'in', he didn't know 'the', he didn't know 'a' so I've done some work with him with little sight flash cards, and that helped him to fill in the gaps so that the other day he actually managed to read some sentences to me rather than just groups of words.

I: How do you use flash cards?

T: Flash cards? We just play games with them I put- usually no more than four, four flash cards in front of them and we say them lots of times in different voices and then I turn them over, and I quickly turn one back over, and they have to be able to say it,

I: Right.

T: Or I might let them see all four and I'll say "Which one says at? Which one says the?" So I just, any variation of game; we play snap with them, anything at all just to try and get them to remember them

I: Is that just with the ones who are struggling?

T: Yes, and I also explain to them why I'm doing it, I don't just make them learn it, I'll say to them "If you learn these words then whenever you come to them you won't have to try and work them out you'll just know them straight away, just like you know that number 8 is number 8", you know, so you try and justify to them why we're doing it that way, and I find that helps, if they know why they've got to do it rather than it just being-

I: Meaningless?

T: Yes.

I: A *failure*?

T: A *failure*, [laughing] mm. (3s) Failures are harder because over the space of a year I just- Well, I suppose you could say with A. it didn't work-

I: That was a failure and a success?

T: Yes, I think it's difficult for me to think of a failure because if it was a failure, I'd always then try something else, I'd never leave it as a failure so it's a bit difficult to think of a failure. They do find word building difficult but I've found once they get into the swing of it it makes such a difference. Erm-

I: When does that- does that take part as a kind of whole class?

T: No, that would be one-to-one.

I: That's in the time when *they're reading*?

T: *One-to-one*, or two of them together. (2s) And, I mean in my previous school it would've been just one-to-one with a welfare assistant, going away and- just you know sort of, into a quiet place around the corner so that they could concentrate on it, um. So I suppose you could say that was a failure to start with, but I'd never leave a failure as a failure so it's hard for me to say- what would be a failure.

I: That's fine, that's fine.

T: Expression can be difficult, expression can sometimes- getting the ones who are reading to put in expression. It takes a long time because if they don't do it automatically, it's quite a long way along the way before- I mean I joke with F for example, and tell her she sounds like a Darlek-

I: Yes.

T: But then- I'll laugh with her about it, I'm not laughing **at** her, so I'm trying to give her the confidence through it, you know, and I'll repeat to her as she said it to me and we'll laugh together. So, expression is something it's quite easy to fail on.

I: Right. Here's the ones you've seen earlier so you've had a chance to think about them. What's your attitude towards how reading is dealt with in the National Curriculum?

T: Well, it's fine as long as you interpret it for the children, not, you know, just treat them as bald statements,

I: Right.

T: You've got to know what you're doing in the classroom and- fit it round what I believe is right, which is, trying everything. So I suppose it's fine, but there's the usual great big chasm between Level 1 and Level 2. Which- there are children who are beyond Level 2 but aren't yet at- beyond Level 1 but aren't yet at Level 2 so the National Curriculum doesn't particularly address those children who've gone, they now, they know some sounds, but they aren't quite at the stage where they're reading and it's not really being addressed, I suppose, in the National Curriculum but it's open to interpretation, so you can interpret it to make sure it's meeting the children's needs. I mean it doesn't say anywhere in the National Curriculum, teach them flash cards, but you do because you're aiming towards what they're, *so*

I: *So*, you've got the flexibility you need to do what you know is right?

T: Mm.

I: Newspaper controversies about reading?

T: I think it's very difficult- because reading is, as I've said before, so abstract. I think it would be very easy to be totally swayed by everything you read in the papers, you know,

this person said that children read by this and that person said something about this. And nobody knows really. People have opinions but nobody actually knows.

I: Yes.

T: So as long as you're aware you're reading opinions, and try and take the best out of it.

I: Yes.

T: That's the only thing you can do isn't it?

I: What do you think about parents' role in teaching reading?

T: I think they are very important. I always found it was very significant, the children that didn't get parental support- just everything from, not necessarily just hearing them read, but reading with them, you know, bedtime stories, giving them lots of books, talking about books. It does have an effect on the children, it really does.

I: In their attitude *or their success*?

T: *Their attitude and in their success* as well, not in all cases, but if they've been exposed to books from a very early age then they just- they're not frightened of them, they'll have a go you know, and if they are frightened, if it does bother them, then you know at home they are getting a positive approach to it as well, so- I mean I think the parents are very important and as far as I'm concerned the more practice children can get the better. But there's the other end of it, well there's sort of two forks of that, the parents who get very wound up about it,

I: Very anxious?

T: Very anxious about their children-

I: About their progress?

T: About their progress, and that can have the opposite effect that a child gets- feels that, you know, anxiety-

I: So they get a lot of pressure?

T: And pressure, and that bothers me I think there's quite a lot of children who get very high level of pressure about reading. Erm. I mean as a teacher it's amazing the number of people you just sort of meet somewhere and you get into conversation; "Oh my child can't read, can you explain to me why?", you know, and you do end up- it's a bit like a doctor's surgery, you do end up in that situation quite a lot, reading is a very high anxiety thing amongst parents.

I: Yes.

T: I mean I had a Mum who said to me once "It just annoys me so much I end up shouting at her every time we're reading!",

I: Oh dear!

T: So, I mean, it's sort of educating- the parents have got to- this sounds terribly condescending, patronising, but the **parents** need to be educated how to hear their child read and how to approach books with them.

I: And you do that through parents evenings, *and books that go home*?

T: Yes, *and they have a video* and a book and there's a booklet about it so the school is trying to address how.

I: And do you think that's sufficient?

T: I think it's sufficient to a certain extent, but with some parents- [laughter]

I: Of course!

T: They want their child, I mean it's very difficult, you know, they want their child to succeed, and if they've got a child who is finding certain elements difficult, it must be very difficult if you just want your child to be very very good, and you can see that their not.

Erm. But I try to at parents evenings- if that sort of thing comes out,

I: Yeah.

T: That's a very good opportunity, when, again, it's not- it's a one-to-one time with the parent, or two parents or six parents, whatever, and give them that time to try and talk it through and suggest things that they can be doing at home. And also saying to them

“Number one the telly should be off. Number two don’t do it while their favourite should be on and you’re not letting them watch it. Number three if they come home and they are tired and they don’t want to, not on a regular basis, but if they’re tired don’t push them into it”,

I: Yes, of course.

T: Yeah, I mean sometimes you’ve got to be strong about it “Right now, come on you will come and read to me”, but not to the point where it’s a battle and then they’ve ended up in-sitting down sobbing next to you trying to read to you. And if- if it just is a bad day for **you**, don’t put the child through hearing them read if you’ve had a bad day and- just like for me, you know if I know I’m having- if a particular child has had a bad day reading can be a time when I can say “Look, I’m not cross with you any more, this was one minute, you know, it’s forgotten now” but also if they’re still feeling very anxious about it or I’m still cross, I wouldn’t hear that child read at that time, so it’s sort of, the **feeling** side of it as well.

I: So the relationship that the reading takes place in is very important?

T: **Definitely**, definitely, yep, erm, and also the fact that they don’t always have to read every word in the book, that you can share it as well and um- I suppose trying not to **over** correct, you know all the things that as a teacher, its building up the confidence of the child and trying to have a positive approach that some people naturally do and others don’t.

[laughing]

I: What do you think of the school policy on reading?

T: I think it’s fine.

I: Did you have any role in *drafting*?

T: No, because I’ve only been here a few weeks.

I: Of course, sorry. Reading schemes?

T: Fine, I’m quite happy with reading schemes, but- I think this school is good in that there’s the reading scheme, but the home readers they take home aren’t reading scheme, so it’s trying to get a balance between what we talked about before; reading scheme and real books. And when we read on the carpet, you know giving them access to other types of books. I mean at the moment a group are using a couple of books on the pyramids. I mean one child might only just be looking at the pictures but F. is use- reading it and trying to use that to help her remember what we talked about. And if they’ve got to do a piece of sort of work, reference work like that I tend to try and write the words on the board that they suggest, and then-

I: So they can use them?

T: Yes, so it’s- again it’s relating the reading to the writing all the way through

I: So we’ve covered quite a lot of this already; reading schemes and real books, erm,

T: Yes.

I: Phonics and-

T: Whatever works!

I: Yeah, right here’s a difficult one, how do you define reading?

T: I think my conversation throughout the tape shows that you can’t define reading in a close term. I suppose the ability to read is to be able to look at a word and know what it says or know what it means and be able to, you know, explain- to get the meaning from it.

I: Right.

T: In a technical- but- the reading at school is everywhere and everything, and I think that’s why it’s so important at the age these children are, that reading is the primary skill that we’re trying to work on with them because if they can’t do that nothing else seems to come, they struggle with everything else, so-

I: Do you feel there are prerequisites to reading? Important things that the child has to master before they can even start to read?

T: Well, we do have reading readiness type- you know there's reading readiness activities that they would do in reception and if you had a poor child, I mean M. for example, I was quite concerned about him in talking to the other teachers, we decided that I should find out if he was 'ready to read' in some way which sounds very high faluted, and I just read some stories with him, I read them.

I: Right.

T: And we talked about them and I read him nursery rhymes- and see if he could work out the words at the end. *I did some*

I: Find the rhymes?

T: I saw- I gave him the alphabet down the side of the page and the alphabet down the other side of the page, mixed up, and he had to draw matching lines, and I did it with words, just to see if his mind was focusing into the patterns. I mean when I was on- at college I remember one particular lecture and they put a- sort of these black and white patterns on the board, on the OHP and they said "Did anybody ever tell you to read the black bits when you are reading not the white spaces?", and it's that sort of thing, just checking that they are focused in to what reading is all about.

I: Right.

T: And then at the very low stages of reading, you know, it's one-to-one correspondence, "One. Day. I. Went.", moving their finger with each word. I mean, Mrs OT [P20] noticed one time, she was doing some work with a child and she said "How many words on that page?" and they started to count the letters.

I: Right.

T: So I suppose reading readiness is-

I: There are some skills-

T: Just, there are reading readiness skills that are required I suppose, yes.

I: Do you think there are component skills in reading?

T: For some children, yes.

I: What kind of-

T: But I don't think you could break it down into those components to therefore teach it, because every child has a different-

I: But you think a holistic way of looking at reading is, er is appropriate?

T: I think I wouldn't even want to pin myself down to that, because I'd hope, I'd hope, I could say **that** but I'd also take the best from- if there's components to reading try and pick out the bits of that that are appropriate, so-

I: Right, and finally, how confident do you feel about your own expertise in teaching reading?

T: [laughs] Depends on the day! Depends on the child-

I: Yes!

T: Depends on- (2s) **me** on that particular day. Some children give you confidence in your ability to teach reading and some children take that away from you! So- I try to make sure I'm doing everything possible for every child, so- I suppose I lack confidence because I know it isn't possible to do everything possible for every child. So- er, I'm always trying, I mean I'm always prepared to take ideas off other teachers and that sort of thing, so, I wouldn't say I was particularly confident in **my** ability to teach it, but I am confident in my ability to **try** and teach it, and to try and use everything to teach it, so, you know I don't- [laughter]

I: That's great! Um. Here we are-

TAPE SWITCHED OFF

Pilot Interview with Mrs OT P20 Orange Primary School

22 February 1994

I: What sort of approaches and materials do you use for teaching reading?

T: Can you switch it off because I don't think you can do this-

TAPE SWITCHED OFF

T: Now, what do you want to know?

I: What sort of approaches and materials do you use for teaching reading?

T: Everything.

I: Everything, that's a good answer!

T: Everything that's around us. It's such a broad question.

I: Yes, so I've got some kind of supplementary ones, do you use real books?

T: Oh right, yes. Yes I do use real books, I do use-

I: Yes, I know-

T: I'll go through that list if you like- [both laughing]

I: And do you teach phonics? [I and T both know the answer to these questions]

T: Yes! [both laughing]

I: I've seen you doing it-

T: It depends really what the children need.

I: Right.

T: I use a variety of approaches depending on what seems to appeal to the child, and what seems to be working with them.

I: So do you think some approaches suit some children better than others?

T: Yes, some children find phonics is difficult because, although they can remember the shape of a word they can't always remember- the sound that each individual shape makes, so they can read some words without knowing what the individual sounds are. So I do both together,

I: Yes.

T: I tend to use whole words and phonics and work the two together.

I: Do you use a reading scheme at all?

T: Yes, the school has two reading schemes that work together.

I: That's Link Up?

T: That's Link Up and Ginn 360, but I've also been using Sunshine Spirals this year.

I: What's that?

T: Well, they're- I'm using them for the real beginners, the ones who are really struggling. And that's a real whole word approach, and it's- it's aimed at the high frequency words like 'the' and 'in', lots of repetition in that. But the pictures give a clue to the other words so that they don't have to be able to read any of the other words, *they can use the picture clues-*

I: *And get distracted?* They can just concentrate on the high frequency words?

T: Yes, and then they have worksheets afterwards.

I: Which you've made up?

T: I've made these. [T shows I work sheets]

I: Yes, I've seen those.

T: This one for example, the only word that is common is 'the'-

I: Right. And they get the others from context? Yeah. And are these like a special thing that are just for the beginning readers?

T: Yes.

I: Or does everyone use them? Just the beginning readers?

T: Then the next story's about a dinosaur, but it's still 'the' is the only word that's common.

I: Right, yeah. Do you use flash cards ever?

T: Erm. Don't use flash cards a lot, unless I use them with picture clues as well. I use- well if- if I want to use a flash card, I'll put a picture with it, because it's when I'm using a big book,

I: Oh yes.

T: And then they're building the sentence, and the flash card bit will be perhaps the high frequency words and then the picture clue will pair with the words either that I find that they know or-

I: I've seen those, like 'sandwich' but the 'in' or 'the' had no picture clue-

T: That's right, yeah. So I just use the flash cards for the high frequency words, but I wouldn't use them out of context.

I: *So it's in the context of the story?*

T: *So I wouldn't hold up 'in' and say "What is it?"*, they would use it to make a sentence about a picture,

I: Yes.

T: So it's got a meaning rather than just learning the shape.

I: Yeah. Um, how often do you listen to the children read?

T: Well I listen to them read their reading book,

I: Is that their class reader?

T: At **least** twice a week.

I: At **least** twice a week.

T: But how often do I hear them read, is another question really, because they read what they've written,

I: Yes.

T: They read what they've got to do on their worksheets,

I: Yeah.

T: So I hear them read, every day, we read all together a big book, every day.

I: Every day?

T: Yes. (3s) So yes, they read every day, but I don't specifically read and mark off a page, more than about three times a week, every day if I can with those who are at a crucial point.

I: So you target it?

T: Yes, I target some children, who I think need the constant repetition on a particular book, where as others if I think they need broadening, I wouldn't be bothered about their book quite so much, but would hear them read all sorts of things. (2s)

I: How's their reading progress monitored or recorded? (2s)

T: Well I record which books they've read and I make comments each time they read.

I: But they've got their individual reading record? [I had been shown these on a previous occasion]

T: That's right, they have an individual reading profile, and so I make comments, but their actual reading age is not tested.

I: You don't use tests?

T: Not in Year 1, no.

I: What do you encourage parents to do with the children?

T: We have a set of supplementary parallel books that they take home, but- yes, the ones on the trolley, yes,

I: Right.

T: But they're- they're supplementary and they're graded, but they're also graded in such a way that the child has some choice.

I: Yes.

T: So it's to encourage their own personal taste in reading and enjoyment in reading, rather than "This is the next book you have **got** to read!",

I: Right.

T: They're encouraged to choose, so it's more of a library feel for them, although for us it's very much the right-

I: Part of your structure-

T: Very much the right level for the child.

I: The class readers then, they do have to go on to the next book?

T: Well I decide,

I: Right.

T: More or less, I might give them- if I've got a particularly reluctant child I might say, "Would you like to choose from one of these?" but they're carefully chosen.

I: Right.

T: And in the end they'll probably read them all, but that's where-

TAPE SWITCHED OFF

I: How did you learn how to teach reading?

T: *Nearly* all the time! [laughing]

I: *It's a difficult-*

T: I'm changing all the time.

I: Right, how do you- why do you change?

T: Just because I find something that seems more successful, or-

I: Where does that come from?

T: Well, you go to a course,

I: *Courses*. [writing]

T: Or you talk to friends or- you just have an idea, that-

I: You try it out?

T: Perhaps if you tried it that way, it might work, so you do it that way.

I: Did you think your teacher training was useful in preparing you for teaching reading?

T: No.

I: Nothing about it was useful? [laughing]

T: No. [definitely]

I: Right.

T: We didn't look at a single reading scheme.

I: Right. So they-

T: This is in 1963, '66, we didn't look at one reading scheme.

I: So there's pretty specific ways it would have been more useful?

T: It would have been very useful to look at a reading scheme to see how it was built up.

I: Right.

T: To see how the words were added, and why particular words were chosen to go into the reading scheme, I had absolutely no idea why they were chosen when I started teaching.

I: Right, so **** was difficult?

T: And those schemes are not in favour anymore.

I: Yes.

T: Ones that we started with twenty, thirty years ago,

I: So you must have seen a lot of changes in-

T: Yes, a lot of changes, but a lot of circular movement, that you go back to the same thing again,

I: Right.

T: Phonics wasn't fashionable for a bit and then it became fashionable, and it didn't use to be fashionable to get the children to fill in a word in a sentence,

I: Right.

T: But that's fashionable again now, 'cloze' procedure,

I: Yes, yes I see.

T: You know it just changes and changes *and changes-*

I: *You've seen it all!*

T: I've seen it go round and round, and the interesting thing is, that when you see it come again you see a new value in it.

I: Yes.

T: You used it for one reason in the first place, and then you come to do it again and you can see-

I: Really?

T: It's very interesting, using the 'cloze' procedure again after all these years is- is fascinating, I think I'm better able to see whether the children- are learning what I want to learn now.

I: Right.

T: Than I was in the beginning.

I: In the light of your experience. During your career has there been a significant event or experience that has made you re-evaluate the way you teach reading? (3s) I know it's difficult to think of anything specific, but-

T: Well I- I suppose each time you go to a course and have time to sit and think-

I: A course.

T: Some of them you go and you feel very aggravated because-

I: Really?

T: Oh yes, because people sit on the fence,

I: Right.

T: And don't actually make any definite diagnosis about anything, but then you go to one that's really good, and you start to look at things in a different way, although you mightn't follow out exactly what they were saying, it does get you thinking in a new way, and looking at your problems from a different angle, which is got to done.

I: Very useful.

T: Yes, and the last one I went to was about September or October time.

I: Was that at Collegiate House?

T: Yes it was. *It was Angela White.*

I: *What was that about?*

T: It was about beginning reading. It's where I picked up the idea of using-

I: Sunshine Spirals?

T: The big books.

I: Oh yes.

T: And I had a particularly divergent class this year, I've got a group of really good readers, and a group of real strugglers, and not a lot in the middle. And- this Sunshine Spiral approach seemed good for the strugglers, and the others were away anyway, so it didn't really matter,

I: Right, I see.

T: So they were happy with the schemes we were using but it was quite clear that the schemes we've got in school weren't sufficient, there wasn't enough at the right, where as this gives you forty books.

I: So more at the beginning level?

T: The beginning level, it's very bottom heavy, which is what you want.

I: Which is what you wanted this year it happens?

T: Well yes, and what you often want, because-

I: Right.

T: Those children who are struggling, need a lot, those children who are quick, you can always miss things out,

I: Yes, yeah.

T: But fitting things in is very, very difficult, so-

I: Right.

T: For that reason, these are filling a nice gap. But next year's class will be perhaps quite different, and I shall need to look at something else then.

I: Can you describe your experience of a success or failure in teaching reading? *Perhaps-*

T: *We have some* of each every year! [laughing]

I: Yes.

T: We usually spot them at the beginning of the year, and know they're not going to read by the end. (7s) Um. A success and a failure. You know the most successful one I ever had was, about twenty-five years ago. [interruption?] Thank you, this is on tape, yeah.

T: When a child just came back after the weekend and could read, fluently!

I: And he couldn't before? [incredulous]

T: And he couldn't before, and it wasn't anything I did it, I mean it was just wonderful! [laughing]

I: It's a miracle! [laughing]

T: Yes. He'd just learnt over the weekend.

I: Does that just happen sometimes?

T: *Yes,*

I: *You feel-*

T: Suddenly it all clicked and fell into place for him.

I: And do you think it's a change in the child or-

T: No.

I: Or was it just your months of hard work?

T: No I don't think it was. I think it was just that the pattern just unravelled for him.

I: Right.

T: And you know how it is, you put the last piece in a jigsaw eventually, don't you? And I think that was it.

I: Right.

T: And then- failures, well.

I: Perhaps something you tried and it didn't- and you stopped doing it because it hasn't worked out?

T: The thing about failures is that you can try a particular method, and it will work for one child,

I: Yes.

T: And when you get another one who's having awful problems, you think, well, I'll try that again, and it doesn't work for them. (3s)

I: And that happens all the time?

T: It happens all the time, every year there's usually two or three that have a lot of problems, just recognising- the same letters, recognising the same word. Sometimes they can't actually join up words that are the same, so if you put four 'and's on the page, then four 'the's, they find it quite difficult, some of them, just to put a ring round the ones that are the same. So you are really right back to looking at pattern matching, and shape matching.

I: Right.

T: And reading for- just reading from context, reading stories without words- without words printed on the page, just telling the story looking at pictures.

I: Do you think that's valuable for everyone or is reading from context-

T: I think most children do it, don't they?

T: When they're-

I: Right at the beginning?

T: Really tiny. You start looking at pictures and talking to children when they are, perhaps a year, indeed before that maybe, and they then begin to know that the words at the bottom are saying something about the picture at the top, and they can see the ones that are the same, but some children it takes longer than others.

I: Yes.

T: That's all really, isn't it? It's just the time it takes, but the reading of a picture is just as valuable for those children to be able to tell the story, put it in order, say what's happening and predict.

I: So it's essential before that they can go on to reading-

T: Yeah, they need to do that before they start to look at words.

I: Yes. Oh here's the ones we were looking at earlier. What is your attitude towards reading in the National Curriculum, and how it's been covered?

T: The National Curriculum?

I: Yeah. (5s)

T: Well, its- I don't mind it at all, except-

END OF TAPE, SIDE CHANGED

T: And it's also given the time it's expected to be achieved, which isn't always realistic.

I: Right.

RECORDING SO POOR HERE NOTHING AUDIBLE

T: I think people just worry because they like to worry, don't they? And people like to be experts and say "This is the answer", and there is no- there's no sure fire way.

I: There's nothing that works for everyone?

T: I don't think so.

I: Yeah.

T: Most of them will learn to read eventually.

I: Yes, literacy-

T: More would learn to read if they had the specific help they need at the time they needed it, there's no question about that.

I: What do you think about parents role in the teaching of reading?

T: Depends how they do it.

I: Right.

T: If they do it, for pleasure and they make it enjoyable, and the children are successful because they let them read at the right level, it's fine, but-

I: But you find sometimes it isn't-

T: You do experience parents who push them on so hard, that the child doesn't want to read.

I: So they have a very negative experience?

T: Yes, very negative, and they feel complete failures.

I: Right.

T: And they will avoid taking a book home to read.

I: How do you deal with that, when you find that happening?

T: Well, you talk to the parents,

I: At parents evenings?

T: And explain how important success is, and perhaps point out to them how few words on the page can be wrong before the child feels frustrated, and a failure. People often perhaps don't realise how few words they can get wrong, because really, if they get more than one word on the page wrong, or can't predict it for some reason, they're going to be quite frustrated, if you're forever filling in, when they get to a certain level, if you've got to be filling in all the time, it's very frustrating.

I: So you emphasise building up their confidence *with parents*?

T: *Pleasure*.

I: And pleasure. Right, *pleasure*.

T: *Pleasure* and success.

I: What do you think about the school policy on reading?

T: Sorry?

I: What do you think about the school policy on reading?

T: It's fine, it's been redone recently and the emphasis, I think, has been right.

I: Did you have any input in-

T: Yes, we all did.

I: Right, so you're very happy with that.

T: Yes, I am happy with it. (2s) Yes, there's an emphasis on enjoyment and independence,

I: Right.

T: And I think they need both of those things.

I: Yes.

T: Because reading is very individual thing and you need to enjoy it, reading's for pleasure, you don't always read the hardest book you can possibly read, do you?

I: Of course, yeah.

T: And I think that that's something the parents think, the child should always be reading something at the limit of it's reading ability. I don't think that's right. [laughing] Parents evening next week! [both laughing]

I: What do you think about reading schemes? (5s)

T: [deep sigh] You've got to have something,

I: Yes?

T: Because you haven't got the time to sort out books,

I: To be graded and-

T: You **must** have something which is graded and, you've got to really have someone grade it for you because there just isn't time.

I: So you do find them useful-

T: Oh yes, you do, because you have an idea, that if you move them on to the next book they're going to be able to cope with it, unless they've got a specific- yes you do need them really, I think you do.

I: And real books?

T: Well I like real books too, but I think you could use both,

I: Yes, of course.

T: I think you should just use everything that's around, if what you want to find out is in a 'real book', and not in a reading scheme, then that's where you go, and if the child is interested in the 'real book', as it were, then that's it. I mean I'm very flexible *about that*,

I: *If they enjoy it-*

T: If they enjoy it, and they want to find out, that's fine.

I: Er, phonics? What do you think about phonics?

T: Phonics, well they need it. (3s) They need to be- it doesn't need to be the be all and end all, but they do need to have it alongside- all the other ways there are, using picture clues, contextual clues, they need to use them all.

I: Um, now this is a difficult one, how do you define reading? (4s) Perhaps you need a moment to think about that one.

T: Deciphering a code, a written code? But then it's more isn't it?

I: Yes there are more-

T: Well it's more because it's- it's information, the passing of information, it's communication and understanding- and so many other things,

I: Right.

T: But it is in it's most basic form, deciphering a code.

I: Right.

T: Because, of course children can read, and not have a clue what they're reading about, used to find that with the old reading tests, they could read the most complicated words, because they built them phonically,

I: Right.

T: But they hadn't a clue what- so that wasn't- it wasn't **really** a reading test,

I: Right.

T: It was a-

I: A decoding test?

T: Decoding test, wasn't it?

I: Right. And you like to emphasise **reading**?

T: I think so, 'cause it's part of (their) life.

I: Well, *I hope so!*

T: *I hope so!* [laughing]

I: Do you feel there are prerequisites to reading, because earlier you were talking about, um, telling stories and things that- that everyone- every child has to master before they can go on to, perhaps, tackling decoding-

T: I think it's going to be difficult for children to learn to read unless they've been talked with a lot- I think they need to talk- first of all they need to talk to people, because they need-

I: To learn verbal and-

T: Yes, they need to exchange language, information verbally with people, they need to- they need to look at things, yeah, and they need to look at things so they can use the contextual clues.

I: Right. So exposure to language?

T: Yes, exposure to language, exposure to books, I mean they need to look at books without needing to read them I suppose.

I: And do you think there are component skills involved in reading?

T: Does that mean that there are a lot of skills?

I: Um ,yes.

T: Yes!

I: Yes. Bits like-

T: Yes, there are, that's why you have to do the phonics with the pictures and the talking, but you have to go on talking long after they can read, don't you?

I: Yes.

T: To discuss, and er- sift information, and make judgements about what you read, and- because it's still **reading**.

I: Even at those very high level skills?

T: Yes, the high level, you've still got to- I think you've still got to discuss, you've still got to-

I: Do you think there's absolutely masses of levels?

T: [laughing] Yes I do, I do! Yes.

I: Yeah. Right, finally, how confident are you about your own expertise in teach reading?

T: Oh no, not at all.

I: Not at all!

T: Not at this stage of the week!

I: But you've been teaching for a very long time?

T: Yes, but you keep changing your ideas, because you change them to suit- the child that's in front of you, because that's the next challenge.

I: Right.

T: So if- if a particular child hates reading stories, then you don't give it a book of stories, and if it doesn't like taking about pictures- it doesn't mean that it won't learn to read because it doesn't want to talk about pictures. And you have to adapt.

I: But you don't feel confident?

T: Well, no. I mean I don't start every year thinking I'm going to manage to get every child to read. Because I don't think it's always in my hands.

I: No.

T: Because I think sometimes the maturity of the child-

I: Yeah. But um,

T: But I enjoy it!

I: It's beyond your control!

T: I enjoy it, it's beyond my control sometimes, I **enjoy** doing it, but whether I do it as skilfully as I could, I mean I'm sure there's (a load of) doubt about that.

I: But your happy with your practice?

T: Well, sometimes yes, yes. This year I feel- I've made an attempt to tackle the problems.

I: You've got new programs?

T: I've got new books more specifically suited for these children. Um, (3s) I worry about the children in middle,

I: Uhuh.

T: I suppose, the ones at the bottom who can't do anything always take your attention because- they can't do it, so it's a nuisance if you like, I don't mean that unkindly but it's a nuisance because they can't read anything and do anything. The ones at the top drift along gently, and that's all right, but the ones in the middle, who need that extra, specialised little bit of- of push or work organised for them, just to get them perhaps over the next little hurdle, erm, I sometimes worry that they don't get as much attention as they should.

[laughing] That's how we are!

I: OK well,

T: Is that all?

I: I think that's everything I've got here, yes.

Appendix D

Pilot Repertory Grid Sample Transcripts

Pilot Repertory Grid Interview with Mr RT P5 Red Primary School

15 June 1994

Interviewer: Well, I think the best way to explain it is to do one, so I'll pick out three children, child 10, child 11 and child 12.

Teacher: Right.

I: Right, now I want you to tell me one important way in which two of them are similar and at the same time different from another child,

T: Right.

I: But something to do with reading, but that's the only limit, OK?

T: Would it be important enough to say that two of them are, sort of independent readers, in the sense that they'll always go and choose their own material.

I: That's great, yeah.

T: Yeah? OK.

I: Where as the other one?

T: The other one needs more encouragement.

I: Right.

T: And really needs to be led to books and through books.

I: So would they never choose to read themselves, or?

T: Not if they weren't encouraged, they wouldn't.

I: Great, that's exactly the kind of thing I mean, so now I just want you to write that down in your own words, as much as you want!

T: So-

I: So, the similarity is that they're both independent readers?

T: Call them both independent readers, yeah.

I: So who are the two who are the same?

T: 10 and 12.

I: Right, 10 and 12.

8s PAUSE WHILE TEACHER WRITES

I: So they enjoy reading?

T: They get far more from it, they're the sort of people who go and pick up magazines as well-

I: Yeah, right.

T: Or a newspaper.

42s PAUSE WHILE TEACHER WRITES

T: I'm not sure my handwriting *****

I: I was hoping all the primary teachers would have beautiful hand writing!

T: Aah, well we do, when we have all the time in the world. (4s) OK then, is that enough in terms of detail, do you need more?

I: That's it, yes, that's great, "Choose their own material" that's brilliant. So that's sort one, you can kind of draw a line under it and that's what we do. And basically I just go through ten times picking out different combinations of three and kind of see what that throws up.

T: OK.

I: So that's the idea of it.

T: Right.

I: OK, if you just look through that list of fifteen are there any other children who you would describe as independent readers, who choose their own materials and enjoy it?

T: Yes, a number of them, do you want all the numbers?

I: Yes, just read out the numbers.

T: Right, 1, 3, 4, 5, 6 and 7, sorry beg your pardon. (4s) What have I said so far, I've said 1?

I: Er 3, 4, 5?

T: I did say 4 and 5, 6, 8 and 9.

I: 8, 9 and you've got 10 and 12 down already.

T: Also 10 and 12, yeah, and 13 and 15. (3s)

I: Right that's great. Yes, I suppose they're quite *old by then-*

T: *Yes, they're older children, so they are- they're already past most of the- the skills stage sort of age,*

I: *Hopefully,*

T: And then they are pretty much independent readers.

I: Right, OK, er, can we look at child 6, child 13 and 14? (4s)

T: Right, certainly there's great similarity between two.

I: Right, who are the two who are similar?

T: 6 and 13.

I: Right, and in what way?

T: They are similar, they're both at about the same reading age-

I: Right their reading age.

T: They would choose similar material in fact, which is quite odd.

I: Right, is their reading age what you would expect for their chronological age, or above or below?

T: It's above average, it's probably about thirteen, fourteen.

I: So they're both excellent readers,

T: Yes, yes.

I: And right- and what is their taste in books?

T: Their taste is unique in the class actually because they choose to read more the classics, like "The Hobbit" and um- they've chosen recently.

I: So very- quite adult material?

T: Oh very advanced, yeah. And they persevere with it and they read it, *perhaps over one or two months.*

I: *And they enjoy it?* That's great.

T: The Hobbit is one that springs to mind, there was another one earlier on in the year, I can't remember what it was now. I'm sure it was something like "The Silver Sword", which is more secondary.

I: *Well that's OK.* Oh by Ian Serraillier.

T: No. He didn't actually write "The Silver Sword" did he?

I: Is it by Ian Serraillier?

T: So "The Silver Sword" anyway,

I: Right-

T: So similar in that way anyway, so would you like me to write that down?

I: Yes, that's great, and they are mature enough to respond to it on that level?

T: Oh absolutely.

I: Right, so they are very mature readers as well.

T: And they can read it with- and deduce what is going on-

I: Right. Infer?

T: Yes, they understand the inferred meanings as well.

I: OK, right, you just have to write that down. [laughing]

T: 6 and 13. [under his breath]

I: I've got um, all the sorts and the numbers down-

T: OK.

I: It's kind of what you're saying that's interesting. Interesting that you've got the only two in the whole class-

T: Yes. That's right, that's the way it was.

I: It's quite interesting doing it, because they are quite random, but it makes you think-

T: It gives you some kind of- clear results.

I: Oh yeah, that's exactly the- that's exactly what I'm interested in.

25s PAUSE WHILE TEACHER WRITES

I: And the contrast is child 14, how they differ-

T: Now he- he is what I would describe as an emergent reader.

I: Oh right.

T: Still on the very early schemes and um- someone who reads with great difficulty and basically has very little enthusiasm for reading.

I: So he struggles but he doesn't enjoy it?

T: Not really, and I think largely because he does struggle.

I: Yes, yeah.

24s PAUSE WHILE TEACHER WRITES

T: Right, so-

56s PAUSE WHILE TEACHER WRITES

I: Are you happy with that?

T: OK.

I: Right, um, next three children I've got here are child 6 again, child 9 and child 12. Yeah, if you just jot it down on that piece of paper-

T: 6, 9, 12, right. So I need similarities.

I: Are there any similarities with those three?

T: Between 6 and 9, yes.

I: Right, how are they similar?

T: Well 6 and 9 are independent readers and are- (4s) two children who perhaps enjoy a variety of literature. Number 6, I've mentioned before, he'll enjoy things like "The Hobbit" but he'll also read modern day material, some of the-

I: And non-fiction?

T: Yep,

I: So a *wide range*?

T: *Keen reference readers* as well, they do so for a lot of their work, so- (3s)

I: OK, great.

T: Is that enough?

I: Yes, that's it I mean when- 'cause if you're doing ten, you're not- you don't have to come up with something different each time,

T: Yeah.

I: If you find you want to say the same thing that's absolutely fine, just go ahead, it's just what you'd say were the most **important** similarities or difference with those particular three children, so- that's great.

27s PAUSE WHILE TEACHER WRITES

I: Aachoo!

T: Bless you.

15s PAUSE WHILE TEACHER WRITES

I: And child 12 what's she, in contrast?

T: Right, well she is- (4s) well she is more likely to choose books in class which are- (3s) well they don't really stretch her, I think she feels more comfortable with books-

I: Right, so she makes quite safe choices?

T: Yes, safe choice really. And she certainly wouldn't be as happy in reference work.

I: Right, prefers stories, so a difference in what she'd choose freely.

49s PAUSE WHILE TEACHER WRITES

I: Um, looking down that list of fifteen again, could you pick out any other children who are like 6 and 9; they are independent readers and they enjoy reading a variety of um, literature-

T: Yep, 10, 4. (4s)

I: 4.

T: The other two are the two who stand out, many of the others are independent readers but in terms of-

I: Right, not **as** much.

T: They're not getting the richness from it.

I: Right, that's great. (3s) OK, shall we go on to the next one?

T: Yep.

I: Right, I've got child 3 and child 14 and child 15.

T: Right.

10s PAUSE

T: Sorry I beg your pardon, the last one, 15 should have been mentioned for, *being similar to the others*.

I: *Oh right*, an independent reader who enjoys-

T: Yeah.

I: Right, OK got them.

T: Um, this is going to be more difficult.

I: Why are they all too different or-

T: Yeah. There's 3 and 15-

I: Yeah.

T: Are independent readers, but 15 is far more advanced than 3, and of course 14 is really an emergent reader, so- couldn't really be classified, I mean I could really put number 3 and 15 together because they choose- they sort of select their own material.

I: Right.

T: But that's probably the only similarity really.

I: Aren't there- there are no other similarities in their strategies, or attitude or anything like that?

T: For developing their reading skills or for-

I: Anything to do with reading! Because sometimes when it's difficult to pick out two as similar, they might be very different in lots of ways but there might be just one thing they're similar on-

T: Yes, because I- because I use similar skills with all of them,

I: Right.

T: In the way that I try and develop their reading skills as a whole.

I: But some of them presumably apply them more than others?

T: Yeah I mean some would perhaps find it easier to use inference and deduction in their reading than others would.

I: Yeah.

T: So I would probably say that S. would find that easier than N., but then they would both find that easier than T. would, so-

I: OK, so you want to put 3 and 15 together?

T: Yeah.

I: Right, and um, (3s) because they're both-

T: They can both use inference and deduction in their reading really.

I: They're both independent readers and they can both use- (4s) they're more advanced in-

32s PAUSE WHILE TEACHER WRITES

T: And they certainly both read aloud with expression, you know, good expression.

I: Right, right. Where as 14 doesn't read with expression? How important do you think reading with expression is?

T: Ah it's vital.

I: Right,

T: Mm. I mean it's important that they understand it-

I: So you think it shows whether they're understanding what they're reading?

T: Yeah, oh yeah.

I: Yeah?

T: Because if they're not pausing in the right place or they don't give emphasis to a word then they are literally reading it as a- as a crude set of words as oppose to having any meaning.

I: So it's a good indicator of comprehension then?

T: Yes absolutely.

I: Right.

T: And I always stop them, and I always question them on the content anyway, I always say, "What does that last bit mean?" If they can tell me what it means, well I can say "What do you think's going to come next?" as I turn the page,

I: Yes, predict it.

T: If they can tell me that, then I get some indication as to whether they are understanding the work *that they are reading*.

I: *And that goes with*, the expression?

T: Certainly.

I: Right that's a very good point, that's- that's worth mentioning.

23s PAUSE WHILE TEACHER WRITES

I: Is it going home time?

T: It is!

29s PAUSE WHILE TEACHER WRITES

T: OK!

I: Can you pick out any others from those fifteen who um, read with good expression and comprehension **like** 3 and 15?

T: Are we talking exceptionally good or?

I: As good as 3 and 15.

T: Right, OK. (3s) 4.

I: 4.

T: Now I've already mentioned 6 but there's another one, 6, 8, 9, 10, (2s) 13 and 15.

I: Right, so is that something you emphasise quite a lot when you're reading?

T: Yeah.

I: Right.

T: And largely because (it goes) on the back of the reading that I've already mentioned.

I: Yeah, the comprehension- OK, right for the next three, I've got down as child 4 and 11 and 13.

8s PAUSE

T: 4 and 11.

I: 4 and 11, right.

T: Sorry, I beg your pardon, I am sorry,

I: It's OK!

T: 4 and 13 are the similar ones.

I: Right, 4 and 13 are similar.

T: Erm, (3s) in that these are two people who regularly read a lot at home.

I: Right so voluntarily and of their own free will, they will- (3s) is that because their parents encourage them to? *Or because-*

T: *Yes.* [firmly]

I: Right.

T: They (are in education) too.

I: Are they? Where as child 11? (2s)

T: Has great difficulty remembering to bring her reading book **back** after taking it home.

I: Right, do their parents encourage them *in the same way*?

T: *Not at all.*

I: Right.

T: They don't read at home.

I: Big difference then?

T: Yes.

I: So they take their reading book home but they don't read with-

T: Well often they'd leave it there, just left in a bag or whatever, somewhere, you know. If I put down-

I: Oh dear, very difficult.

T: Yes there's only so much we can do, we can pack them off with it but- so it's number 4 and 13. (4s)

I: So they're quite behind with their reading as well?

T: Comparatively, yes.

19s PAUSE WHILE TEACHER WRITES

I: The two who are similar are on the left, [of the paper] the similarity, the one who's different is on the right. Do you need any more paper?

14s PAUSE

I: So do they not read at all at home?

T: Not from what I gather.

I: Right.

T: I get that impression.

19s PAUSE

T: OK.

I: And can you pick out any others from the fifteen who read a lot at home and have that same encouragement?

T: Certainly. (5s) Right, number 3, 4,

I: 3, 4?

T: 5, (2s) 6, 8, 9 again, 10 again, (5s) number 12 reads at home but not a lot, and 13 and 15. (3s)

I: That must be very gratifying then, most of them-

T: Oh yeah! I'm very lucky really, small class-

I: Nice catchment area?

T: Yes, that's it, the parents are interested,

I: Yeah, involved?

T: And there's been quite a big plug on it recently.

I: Right, is that from the head or?

T: Yeah I mean the whole school is- we've introduced this thing called a reading card,

I: Oh yes, what's that?

T: It's a- I wish I had an example actually, it's just a tiny booklet,

I: Right.

T: Which they can use as a bookmark-

I: Oh yeah, I see-

T: It also gives us room to comment *on how well they are getting on-*

I: *And they take it home?*

T: All the different criteria we're going to assess them against, such as how fluent their reading is, if it's- erm, if it's good expression, if they could do with perhaps reading aloud-

I: And does it go home?

T: It goes home and their parents can hear them read and then they actually can offer their own comments as well.

I: So it's like a communication *between* the teacher and parents?

T: *Yeah, oh yeah,*

I: Right.

T: The link between the parents, and, you know in nine cases out of ten the parents sign it,

I: That's great.

T: And listen to the children read. There's always exceptions of course.

I: And they get to see how their child's getting on all the time, every time it goes home?

T: Yeah.

I: That's great, yeah.

T: Which is good, it means both of us can monitor the progress.

I: Yeah. Right, next three, I've got child 2, 9 and 10. (5s)

T: These will all take their reading book home and they'll all be heard at home, although 9 and 10 are of a higher reading age than 2,

I: OK.

T: And 9 and 10 would- (4s) er, would sound more coherent essentially, when they read aloud,

I: Right so-

T: Just sounds clearer.

I: Put 9 and 10 together, although all- all of them have parental support?

T: Yes. (6s)

I: Sound more coherent?

T: Uhuh.

I: OK.

114s PAUSE WHILE TEACHER WRITES

T: Right.

I: OK, are there any others who um, sound as coherent as 9 and 10?

T: Are you talking about ones that I've already included?

I: Yeah that's it, just going straight through the list, so I'll just tick them off here.

T: Yes, right. Number 15, 13,

I: 15, 13.

T: 8.

I: 8, I've got 9 and 10 already.

T: 6.

I: 6.

T: 4,

I: 4.

T: Yes that's about it.

I: OK. Right, next I've got 5, 7 and 8. (3s)

T: Right. (3s) Right, well 5 and 7 are similar in that they are more inclined to- sort of pause more frequently, they would have more difficulty in grasping some words.

I: So they're hesitant?

T: Not sound them out,

I: Right.

T: Where as, er- number 8 would always have a go at a word, she'd try and break it up a bit, you know.

I: So is it their decoding skills?

T: It's- they've got similar decoding skills, [5 and 7] in that they are perhaps not as confident to decode from the onset,

I: Right.

T: But number 8 would be.

I: Right, they don't spontaneously use them as much as-

T: No.

I: Right.

T: Not without encouragement anyway.

INTERRUPTION

I: OK, right, how do you want to put that?

T: Right well I think if I- just say 5 and 7 are less- are reluctant to decode words.

I: Right.

T: Do you think that's enough?

I: Yeah, you said by sounding them out. OK, right.

13s PAUSE WHILE TEACHER WRITES

I: But they could if you made them, is that what you're-

T: Oh yes, definitely,

I: Right.

T: They're capable.

I: It's just they don't spontaneously use them, right.

9s PAUSE

I: Where as 8 might be more willing-

T: Yes, she'll always have an attempt, you know.

INTERRUPTION

I: OK, that's the seventh sort isn't it? Um, right, if we just go through that list again, can you pick out any who are the same as 5 and 7 in that way?

T: 14.

I: 14.

T: 12 and 11. (5s) 2 and 1.

I: Great, OK, have you got enough paper there?

T: I'm about half way down the second one.

I: Oh that's OK, we've only got a couple more, right, next three I've got child 9, child 11 and child 15. (4s)

T: Right, so 9 and 15-

I: They're similar?

T: They're the similar ones. I'm trying to think of an obvious reason for their similarity.

I: [laughing] What, you just **know** that they're more similar?

T: Yeah, well I suppose you always tend to bracket them.

I: On what grounds though?

T: Yeah, there's probably many,

I: Right.

T: And trying to think of them immediately. I mean certainly they- are sort of competent readers, I'd always put them- I mean they're probably both- I know that S. was, put number 15,

I: Right, that's fair enough.

T: Trying to retain the anonymity, was- had the highest reading age in the class.

I: Right.

T: And I know that number 9 is also very- a very high reading age.

I: Is that on Schonell Reading Tests?

T: Yes, the one we do at the beginning of the school year, and in a similar way, all the skills that I assess them against,

I: Yeah.

T: Which are the ones in the National Curriculum,

I: Right.

T: You know which are the inference and deduction and their expression, and- I can't remember, there's a whole list of them, I just tick them off every time I ask them a question, yeah, their predictions and all sorts of things like that.

I: They've got all of them have they?

T: Essentially, yes. They're very able readers.

I: So that's it, is it? You've just got no problems with them?

T: No, I mean again, I make sure they read texts which are progressing their skills-

I: What, challenging them?

T: Yeah, I mean it's pointless if they're going to read- you know- sort of texts that are clearly beneath them.

I: Right, but they're (sailing doing) most things?

T: We do tend to grade the books in school anyway.

I: And is that like in the Cliff Moon system where you can colour?

T: We used to, but we've recently taken on a system that Roger [Merry]

I: Oh yes?

T: Passed on to us, it was a sort of mega read, mini read and midi read.

I: Right.

T: I'm not sure whether it's a system he devised or whether he heard of it somewhere, but it's actually- it's the same way that other books are put into three categories now.

I: Right.

T: You have like a mini read, which is for the emergent readers and the readers who are just beginning to cope with print, and the midi read is for perhaps those children who are of average reading ability,

I: Right.

T: And the ones such as T. and S. would be, certainly expected to be on to the mega books, which would include texts like "The Hobbit".

I: And that's for the whole school is it?

T: All the way through. Although the lower school do have graded reading schemes-

I: Right.

T: Of different sorts, they've got more of a selection than any particular scheme.

I: So this is the juniors just have it divided into three, and they can choose- within that, anything they want?

T: Yes, although for those readers that I've mentioned that are struggling, they'd be encouraged to go through either- there's a Betty Root scheme that's rather, yeah, I'm sure it's by her, and we've got another scheme in the school we've sort of got access to, (Timothy Byatt), if you've heard of that one? It's called (Tim O' Tobias) is the scheme,

I: No, I don't know that one.

T: That's one that they regularly use as well, so we support that with the free reading books.

I: OK.

T: But to get back to that similarity-

I: Oh yes, that's right-

T: It's quite easy to repeat myself, I'm trying to-

I: That's fine, if you- it's absolutely fine to repeat yourself!

T: Are you sure, because you have to say that they're fluent, expressive readers then.

I: So I put they're very competent and fluent and expressive?

14s PAUSE WHILE TEACHER WRITES

I: Right, and you're contrasting that with 11, who's?

T: She finds great difficulty in adding expression to her reading. What am I saying, "Great difficulty" is harsh, she's just not in the same band as the others.

I: Right, yes, it's just because you are comparing her to these two. Right.

T: I need to write the number of the last two?

I: And um, is her-

22s PAUSE WHILE TEACHER WRITES

I: And er, not such a competent reader?

T: As the previous one.

I: Right.

9s PAUSE

I: OK, are there any others who are as fluent, as expressive, as competent as 9 and 15?

T: Right, we have 15, we have 13.

I: Right.

T: 9, 6, 4.

I: OK, right.

T: I have to be careful not to cross reference here really, because I could have mentioned two things together, they're largely the same, but I'm sure you can work it out from your chart.

I: What, that the same- *the same people crop up?*

T: *Yes, interesting to cross-reference* everybody.

I: Yes, that's um. Yeah, because looking at 11 I can see she's been a contrast as a reluctant reader and a reader who doesn't have support at home, and again the reader who's **not** as competent.

T: Yeah.

I: So yes, you can see- see the patterns. OK. Right, um, I've got child 1, child 4 and child 7.

T: Right. (7s) The child 1 and child 7-

I: Uhuh. They're similar?

T: Read well- well they don't have that much expression in their reading.

I: So their reading age is-

T: Is similar-

I: But?

T: There's probably about a year between them but it's more similar than- child 4, you did mention child 4? You did say child 4 didn't you?

I: Er, yep.

T: Yes. (3s)

I: So 4 is the contrast. Is that because they [the child with the year lower reading age, either 1 or 7] are younger?

T: Not at all because- child 1 is Year 6.

I: So are they having problems with reading?

T: They just seem to have- taking more time-

I: Right.

T: To mature really, as oppose to having problems.

I: So you think it's just developmental then?

T: Yeah.

I: And it won't be a problem in the long run?

T: I don't, no I don't anticipate it to be so.

I: Right.

T: There could be many reasons for it as well, could be the fact they've not found many of the texts interesting at school, that they're a bit arid, you know, to- not be interesting, I don't know.

I: They don't especially enjoy it, or they're just not very motivated?

T: Possibly, but possibly they don't enjoy it. (3s) So let me see then, 1 and 7.

24s PAUSE

T: Their general interest in reading,

I: Is greater than 1 and 7?

T: Is less than 4.

I: Is **less** than.

T: Yes, sorry that's what I meant, yeah.

I: Right. (7s) So they're not very interested in it, where as 4 enjoys reading more?

T: Yes 4 is certainly more enthusiastic.

I: Right.

8s PAUSE

I: I think I got that the wrong way round. (3s)

T: Right, so 4 would openly, sort of give you a verbal book review,

I: Right.

T: Where as the others would need more encouragement to try and- sort of map out the book again for me, as they stood that was, and number 4 could close the book and take me through the story again.

I: And they're [4] quite keen to share *their pleasure*-

T: Yes, yes, that's the difference.

I: Right, are there any others in that fifteen who- who are not that enthusiastic, like 1 and 7?

T: Yes, 14, 11. Erm, probably the same band as them, yeah, I'd say 14, 11 and 8. I'll quickly fill that one in.

I: Yeah not too many. OK.

14s PAUSE

T: I hope you can read this writing.

I: Yes it looks very neat. I make a few notes myself, but yours is more legible than that?

T: Do you think?

I: Have you got room for the last one on there?

T: Yes.

I: Oh great. OK last three, child 3, child 5 and 13. (7s)

T: Actually 3 and 5 would have- more of a need to decode new words than perhaps 13, he would attempt words and it he'd possibly be either using his own vocab or having heard them.

I: Right, so he's got a larger vocabulary?

T: Yeah, and he would talk, not necessarily understanding the word, but he would certainly be able to say it.

I: I see so um, these two they need to decode-

T: Well, um 3-

I: They have difficulty with it?

T: It was 3 and 5 wasn't it?

I: Yeah.

T: They would need to decode on some of the larger words-

I: Because *they're not in their sight vocabulary*?

T: *Slightly more so than J.* Yes, their vocab is less developed,

I: Right.

T: Than number 13, and largely because they're not at the same reading age so they've perhaps not come across as much-

I: Right, I see.

T: To develop vocabulary. It's counterproductive really.

I: Right.

T: Is that enough of a reason?

I: Yes, that's-

T: Sure?

I: Yes, that is enough of a reason, um, yes, you might be able to pronounce something but I suppose if you don't know what it means- or if you haven't come across it before-

T: Yes-

I: It doesn't, you know, it doesn't mean much.

50s PAUSE

I: So let me just check that, 3 and 5 are happy to decode words more often because they are more likely to come across something-

T: Yeah.

I: Because they don't have such a large vocabulary? Right, OK. Are there any others in the same category as that?

T: Right, 14, 12, 11.

I: 14, 11, 12.

9s PAUSE

T: Yeah, 2 and 1.

I: OK, that's great.

T: I'll just finish off this for 13.

I: Right.

35s PAUSE

T: If a word's got more than one syllable (what's it called)?

I: Er, polysyllabic.

T: Monosyllabic, (that's what I'm thinking of). Have you got the Junior Education insert on reading?

I: No, er-

T: It's very good actually, you'd be wise to get it.

[]

I: They should have it at the Education Library. Just looking at all the fifteen children together, you've said lots of things but if you just had to pick one thing that was **the** most important- thing to do with their reading, to differentiate them, what would the one thing be?

T: To differentiate between all of them?

I: Yeah. (5s) The single most important similarity or difference.

11s PAUSE

T: I suppose their comprehension, how well they can understand what they are reading, that's got to be one of the most important things to me.

I: So more important than their reading level is whether they actually understand what their reading.

T: Yes, more important than expression-

END OF TAPE

Pilot Repertory Grid Interview with Mrs WB P13 White

Junior School

24 June 1994

Interviewer: It's called a Kelly's Repertory Grid [] and the idea of it is to get people to describe their ideas about something, in this case reading, in their own words, and I thought it would be a good thing to do because then I can get you to write down in your words what you think, [laughing] while I just listen!

Teacher: Like a test is it? [laughing]

I: Well, no. It's not like a test it's just a handy format. The way it works is these fifteen elements down here are fifteen children, just by picking out three children at a time, you can tell me some ways in which they are similar and different, about their reading or their attitude to reading or anything that's relevant to reading, and it's just a nice way of making it specific and making it a starting point really for you to tell me what you think, and write it down! So I can take it away and read it.

T: I'm going to get a pen.

I: OK, right, I'll just fill out the date.

41s PAUSE

I: Right. Have you got any questions?

T: Oh I might as we go through.

I: That's it, just feel free. Well really the first thing we need is the fifteen children, um, it's anonymous and confidential because I can just call them child 7 or child 8,

T: Oh right.

I: I don't need to know what their names are, but if you jot down on a piece of paper the names, *and the number-*

T: *Oh I've actually got thirty in here*, so what do you want to -

I: Oh that's perfect, alternate ones.

T: Alternate ones, OK.

I: That'll do,

T: Right, OK.

I: Um, actually, it's just so that you know who you are talking about when I say, child 1 is so-and-so and-

T: Right, OK, so if I write-

17s PAUSE

I: What year are the children?

T: They're five, Year 5.

9s PAUSE

I: Things getting a bit hectic towards the end of term are they?

T: Well I mean- there's so many things going on, you know parents' evenings, open evenings. And they're getting a bit excited anyway,

I: Yes!

T: They found out yesterday who they've got next year, so-

I: Yes, that makes it a bit difficult-

T: And F. [PGCE student] is leaving today as well, so-

I: Yes. (4s) It's quite good because after you've had them for a whole year you can describe how they've developed I suppose, you've seen everything- how they've changed-

T: There's a lot of girls here, (I don't think I'm mixing them up) go on to the boys, few boys here.

31s PAUSE

T: I'll cross one of those girls off, *****

I: OK that's great.

T: Right, done that.

I: This is what I'm going to take away at the end and, you know, read it, inspire me, *think about things*,

T: *Inspire you, I don't know about that!*

I: So feel free- feel free to write as much as you want and cross anything out, or change it. Because it's, you know, your ideas, so that's whatever- and at the end you've got a chance to go through it again and alter anything you want.

T: OK.

I: I think the best way to explain this is to do one really.

T: Yes OK.

I: I've got- the first three children I've got down are child 10, 11 and 12.

T: Right.

I: And this is the first sort, so, I don't know, you could jot down 10, 11 and 12 or something.

T: Oh right, I write them in here do I?

I: Right, and I want you to tell me an important way in which two of them are similar to each other, and at the same time different to the third, which is something to do with reading.

T: Oh, something to do with reading.

I: That's the only limit, otherwise it can be anything at all that's relevant to reading because that's what I'm interested in.

T: It's not sort of characters, it's just sort of reading?

I: Just reading, although of course, if you've got very boisterous characters who don't like to sit down with a book- it's pretty broad, the only limit-

T: One of them is extremely quiet, you know, and the other two are very noisy, very outgoing, very noisy. I mean do you want that sort of thing down?

I: Is that relevant to their reading?

T: Er, possibly. Yes. Well sort of- one's a very sort of quiet reluctant reader. So yes I should say, oh, that's different, you want similarities don't you?

I: So what are the other two like? Their keen-

T: Well, not really ever so keen, but they're more willing to read than the third one. I mean they **like** to come and read.

I: Right, but does he not like reading aloud?

T: Well actually he doesn't like reading at all.

I: OK, *well that's a difference!*

T: *Is that alright?*

I: So the two who are similar are-

T: Do I put the numbers down, 10 and 12?

I: That's alright, I cross them off here. [on the repertory grid]

T: Oh, do you want me to do it like that?

I: Just describe what the similarity is.

T: So 10 and 12- (6s) I put "A third person", because it's not necessarily always me. [hearing the child read]

I: Right. OK, is it reading aloud to a third person, *or just reading?*

T: *Yes*, I put "Read to a third person", do you want me to put aloud?

I: Right, where as the difference is-

T: And I put over here?

I: That's alright, I've got the numbers down here, that's fine. (6s) And their reluctance isn't just reading aloud, it's everything?

T: Yeah, I put "Not very confident" you see because of the others, not very confident, I put that, where the others, you know, overly boisterous.

I: OK! That's exactly the sort of thing so you can just draw a line and that's it. And um, keep doing that and looking at different combinations and see kind of what things it throws up.

T: Right.

I: And, I mean, when you're doing that, it's quite possible that the same thing's going to come up again-

T: Yeah.

I: That's fine, OK you can just put that again. If you're just looking through that list of fifteen children there, could you say there are any others who **like** to read aloud, very keen to read like these two?

T: Oh yes! Let me see, number 1, 3, 5, 6, 7, (3s) er, is this to somebody or to themselves?

I: Well, if you said it's reading to somebody *it's*-

T: *To somebody*, so you want the same quality?

I: Similarity. Yes, that's it.

T: That's about it then.

I: OK, right that's great, so, just go on to another three children, OK? Right, I've got child 6, and then 13 and 14. Any similarity there?

T: No, wait a minute 6, 13, 14. Right. (4s) Yes, I've got two who are- who like to tackle longer books.

I: Right.

T: Very keen on reading, you know, the longer Roald Dahl books, those sort of things, and read them at home. And I've got one who prefers not to read anything, if it's [not] absolutely necessary.

I: Nothing?

T: I mean he'll read to **you**, I mean he'll bring his reading book but he won't bring it home.

I: Right.

T: Although Mum, you know, said send it anyway, 'cause she'd like to, sort of you know, hear him read.

I: So there's a lot of support at home-

T: That's right,

I: He just doesn't-

T: He just, well, (he's just not bothered really,) he's got the ability but he doesn't want to read. But yes, 6 and 14,

I: Right, so they're similar.

T: Are very keen readers.

I: And they're quite capable of tackling long-

T: Yeah. They **like** to. *****

I: Don't worry about that! [laughing] That's only what you're saying.

T: Can you read it afterwards, that's the question!

I: Well, I jot something down, but primary teachers all have lovely handwriting. [joking!]

T: Ooh Mr P. wouldn't say that of mine, he's- my nice neat best writing on my reports gave him a headache! [both laughing] It was too close together, he said, well I've got a lot to say!

I: I'll jot a bit down.

T: Very reluctant to read.

I: To read anything, or- is it just fiction?

T: Even worksheets, anything!

I: Anything at all?

T: Anything, yeah.

I: Right.

T: It comes quite well out on a reading test, I mean, you know he's got the ability.

I: So it's not like they can't, they just won't?

T: Just not bothered really, you know, much prefer to talk.

I: Well I suppose that's something. [laughing]

T: Not always what you want them to talk about though.

I: Are there any others who are as keen as-

T: Yes, yes I've got- let me see, I've got number 3.

I: Right.

T: Number 5. Number 7, 8. (3s) It's relevant their sex now because my keen readers are mostly girls.

I: Yes, I suppose it could (come in), well, I don't know-

T: But you don't know who- which sex they are though do you because you've not asked.

I: Well do you think I should put that down?

T: Well I don't know, in **mine**, I find my most enthusiastic readers are girls, I mean-

I: That happens every year, does it?

T: One of these- one of these who I've just done is a boy, but he's about the only one that really likes to tackle longer books, the others, you know, don't- they're not as interested. They'll read if you want them to, but he's quite keen-

I: Irrespective of the subject matter, or?

T: He just likes reading anything. But I find that it's the girls otherwise that are the keen readers. (3s)

I: Why is that?

T: I don't know really, erm. Well I suppose if you gave some of my boys, you know, a book about football they might be interested, ('cause they're football mad at the moment). [World Cup] But no, I just- the girls seem to be- they want to tackle- they're reading sort of things about Roald Dahl, you know, anything with his name on, they'll read.

I: Yeah.

T: Because they're not necessarily the better readers.

I: They just enjoy-

T: They just enjoy it more than the boys.

I: Right, OK. I've got child 6 again and 9 and 12. (6s)

T: Right, well yes, there's one very distinct difference there. I've got, yes, I've got one in here who's extremely bright verbally, but finds it extremely difficult reading.

I: Oh that's um-

T: It's, yeah, we actually think he **may be**, I mean I don't know, we think he may be dyslexic, *we've asked for him to be-*

I: *You think it's* a specific-

T: Yes, yeah, I mean he loves looking at books, he loves reading, but he really, really struggles. He's coming on, and we've done a lot of work with him this year, he goes for extra help.

I: Has he gone to the reading support team?

T: Yes, downstairs, on recommendation from me and it's the same with the writing, you know, he turns left his hand and he forgets what sounds, you know, that he's done. He's learning quite a few good tactics, he'll sort of read around it and come back to it, you know, he'll use picture cues and he's you know, really trying with his sound, although, you know, "em" and "double you". If in a spelling test he spells something with the wrong letters, then I'll give him the benefit of the doubt, because-

I: Right.

T: He knows what he wants to put but he's just put the wrong one. I mean its not- its "bee" and "dee" and "double you" and things like that. And yes, he's struggling, now the other two on this list, I mean 12 and 6 are quite good at reading.

I: Right, so 12 and 6 are similar in that their- no problems with them?

T: No, they've sort of mastered the main skills its just practicing.

12s PAUSE

I: So there's nothing wrong with his verbal language, *or maths?*

T: *Definitely not*, definitely, maths yes, he struggles with maths, it's confidence with maths, and he, you know, still needs to do a lot of work hands on with maths.

I: Has he got a confidence problem at all, with written?

T: Not really, not verbally, no. Verbally- he's very capable verbally! [laughing]

I: Right.

T: He's very bright. That's why we've, you know,

I: Put the recommendation in for these tests?

T: Yes, we want him to have an intelligence test, really,

I: Right.

T: To see if, you know, there is a possibility of him being dyslexic. But at the moment, you see, the psychologist who does the tests is pretty overworked and has not got round to doing him yet, so, we're working on it.

I: But there's a mismatch between the achievement and the ability?

T: Yes, yes. The problem with him at the minute is his sister is catching up with him, and I mean Mum says that is now a problem, his sister's only seven and she's reading-

I: *He's ten?*

T: *Catching up*, he's ten, yes, but he gets a lot of support at home.

I: Right, so, er-

T: What am I going to put down?

I: This is the beauty of,

14s PAUSE WHILE TEACHER WRITES

T: Are you having a lunch break?

[]

TAPE SWITCHED OFF (TEACHER OUT FOR THE END OF TEACHING PRACTICE CELEBRATION LUNCH)

I: So I think we'd just looked at 6, 9 and 12.

T: Yes that's it.

I: And the two similarities were- that they're good at reading.

T: Capable readers.

I: Right, er, could you just look through that list and tell me if there is anybody else who is as capable?

T: Oh right, as they are?

I: Yes.

T: Let me see 6 and yes, we've got number 3 and 5. (2s) 8.

I: 8.

T: And possibly 7. Almost.

I: OK right, so the next three I've got are 3, 14 and 15. (3s)

T: And 15. Right, again actually you've got two who are very much like last time, one of them's the same number isn't it? No it's not, what am I doing? 14. I've got 12 there. Yes, 14 is very similar to 12 actually, so he's very keen and 3, she's a very keen reader. Not quite as- comprehension is not as good with the reading, the reading is very good,

I: Right. What-

T: Comprehension is- you know, you've got to ask her- got to ask her really questions about what she's read about. She's very good at reading,

I: Right.

T: But doesn't always take in everything, you know, that's going on in the story.

I: I see. So, um, and he's the same is he?

T: Well no, he's a good reader the same as her, he probably takes more in than she does, but 15, definitely, there's no comparison with those two.

I: OK, right so we'll have 3 and um-

T: 3 and 14. Both-

I: What are you going to put down?

T: Well both choose to read the longer books and enjoy reading, both read at home.

I: Great, that's it, so read longer books, enjoy reading, and they read at home,

T: Yes.

I: And their parents read to them?

T: Well I- no not necessarily, I think with W. he just goes and sits himself in a corner I think and just reads.

I: He's so keen he's happy to do that?

T: He does, yeah he likes detective stories.

I: Right.

T: (He likes Agatha Christie,)

I: Really?

T: Yeah. I think they've got quite a lot of books in their house.

I: Keen?

T: Yes, he's keen, yeah. And 15, ah well he likes to come and read to you but I mean he's struggling a little bit really,

I: Right.

T: Again, I mean, doesn't read at home, doesn't take books home to read and really ought to.

I: OK, yep, that's-

T: It's coming-

I: I mean that's the important difference.

12s PAUSE

I: He doesn't take books home, did you say?

T: No.

I: But he needs to?

T: Um yes, well a lot of them do actually, I mean you get parents in and they say, "I wish they'd bring their book home, you know, I would hear them read", there's this- and there's also distinctions, they're much keener at the bottom end I think, little ones, to take their books home, but as soon as they sort of- you know, they're getting a bit big to take books home-

I: Yes they're quite old,

T: And I do- I mean some will insist, if you've got a very keen Mum they'll say, you know, you must bring your book home and they do. But I think a lot more parents, I mean we speak to them,

I: Yeah.

T: They're keen, *they would* listen to them-

I: *But the* child doesn't-

T: But they don't take them home, I mean often if they do take them home they're there for ever, you know and you keep saying, "Have you got the book?", "No, I've forgotten it", and so then you have to have a substitute book in school, you know, that they can read until they bring the book back.

I: So it's the children who are unwilling, because they think it's babyish, or?

T: In some cases I think they do, and in other cases I think, you know with some of them, they're not- they'd prefer to do other things-

I: Well,

T: Than read.

I: Right, I see.

T: You know? So,

I: Yeah.

T: Got one, you know, pigeon mad! I mean never gonna catch him reading a book down the bottom of the garden,

I: Pigeons.

T: You know!

I: A book about pigeons?

T: He can tell you anything- he knows everything about pigeons, yeah.

I: Right. (5s)

T: It was actually nice just to speak to parents at parents evenings and sort of say “Well, you know I’d like him to take his book home”, “Well yes I would hear him read” or somebody would hear him read if he brought it home.

I: Has that changed since the parents evening?

T: Well I mean- no, not- I think I’m taking them through next year, so I shall- you know, I’ve made a note of those parents that’ve said that, **they will get their books home**, hopefully. Next year. Because I think, you know, I’ve said to one or two of them that really, you know, if they’re going to be Year 6 next year they really need to, they’ve got to work hard next year and get that, you know, and get that reading sorted out.

I: Yes. Are there any others who choose to read, are keen, like um, like 3 and 14?

T: I’m sure we’ve had this one before haven’t we?

I: Which is?

T: 8, 7, 6, 5.

I: Right yeah, that’s the same as before. OK, right, well I’ve got some different children here, 4, 11 and 13. (3s)

T: Right. Well, I’ve got yes, I’ve got two that are quite similar in ability, readingwise, you know they’re sort of- they’re still- they’re both below their reading- their chronological age.

I: Right.

T: And they’re- I mean they’re trying hard and it’s coming slowly, where as 13, he’s quite a way ahead really, he’s the one who’s got the ability but doesn’t know how to use it.

I: OK, right fine.

T: So 4 and 11 and- well I mean they’re not in the beginning stages but they’re sort of intermediate readers really, I would say.

I: Right.

T: I mean using, you know, er, picture clues and, you know, er, phonic clues and things like that, and also reading on and coming back.

I: Oh right, so what’s holding them up? They’ve got the strategies which-

T: Well it’s just, lack of practice I think, more than anything really.

I: Right, right.

T: You know, that- that’s more than anything, I mean they know what they’ve got to do, and also they’re quite slow at reading. You know, if you’ve come across these children that, you know, they really-

I: Pause.

T: Yes they do.

I: Between each word?

T: Yes. Quite sort of slow, which very often means- with one particular one, what often with her is- and mother’s helping- is I’m sending quite short books home that I know are probably fairly easy for her,

I: Yeah.

T: But I want her to read a **whole book** at one sitting,

I: Yes, get the whole story,

T: Yeah, and I’ve- Mum’s been helping me with that, and so we’ve been- I mean I had to explain to Mum, because I didn’t want her to be seen to take a book home,

I: That’s *too easy*! [both laugh]

T: *Too easy*! Ooh heaven forbid!

T: Yes.

T: So I explained exactly what I was doing and said “Now I know this book is too easy but I want her to sit and read it, take, you know, do- pause at full stops and things like that, and read with expression, but **get to the end**, please, you know, read the whole thing with her”,

I: Yeah.

T: And that's coming on quite nicely, so- because she was quite keen to go on to the longer books, which was OK, she could read them, but we were really struggling because she wasn't taking in the story because she'd only, you know, she'd read two or three pages perhaps at a time, and then-

I: Right.

T: You know you weren't- you weren't reading for pleasure, if you know what I mean.

I: Yeah, I can see what you mean, so you're kind of-

T: So they're, what can we say with that?

I: They've got the- got the *strategies*-

T: *Got the basic strategies*, yeah.

I: But they just need to-

T: Practice.

I: To reinforce it, by the enjoying it, and comprehending it.

T: That's right, let's enjoy a story, it's not-

I: Yeah.

T: 'Cause a lot of them, you know,

I: That's what you're working on-

T: I'm working on that with her in particular,

I: Right.

T: Yes, so-

I: Yes. That's very interesting. That's the most important thing at this stage?

T: It is for her, yes. I mean in a certain- you see I can't send books home with him because he actually lives with grandma, and I don't- there's not much enthusiasm there, so it wouldn't, you know, although I'd want to do a similar sort of thing with him I need back up. If you've got back up it's a lot easier.

I: Yes of course.

T: You know.

11s PAUSE

T: For pleasure I think.

I: Yes, so the contrast to that is 13 who's, a fluent reader?

T: Well he's quite a fluent reader but he's not got much enthusiasm for reading really.

I: Perhaps they all need- right, that's a similarity with all of them.

T: They don't seem to have got this sort of **enthusiasm** for books, you know, that there ought to be at this age, you know, wanting to "Oh look, you know, I've read one of this author, let's read another one", you know.

I: Yes, yes.

T: I mean I recommend sort of books, 'cause I've got a- my son's the same age, and he just- he's always got a book in his hand, he just reads the whole time, and I'll say "Oh, you know, my son's read this book, would you like to have a go, he says it's-", I mean I haven't read half the books he's read, and I'll say "It's quite a good one", and then perhaps I'll **read** a book to the class a particular author, and say "Well look, you know, if you want to read another book try this one", or actually I've tried another tactic, last term, we actually **listened** to a story, not all at one go because it was a long one, but that was a Roald Dahl one,

I: On tape?

T: On the tape, yes, we listened to it sort of a couple of chapters a day, and a couple of them, just off their own bat, got the book,

I: Yes.

T: And were, 'cause it's word for word you see on the tape, and were following it. Which was quite nice.

I: So that sort of motivated them?

T: Yes.

I: Do they recommend books to each other? Do you have a system?

T: Some of the girls do, yes, they'll read it and say, you know, "Have you read this one?" and "This is a good one you ought to read it", and they will.

I: So you don't have a class or, group for recommending 'four star' books or-

T: No, we have got- what we did was, we have- well obviously we have a certain amount of money to spend on class books, but we also have a system where we have biscuits and what we- I go to the cheapest place to get biscuits and then any money that's left over, we work the system downstairs as well, and we buy books,

I: Right.

T: With any money that's left over, it's called, our, in our-

I: Your biscuit fund?

T: Our **biscuit fund**, yes, and I went down to Rhyme and Reason [childrens' bookshop] and got some really nice books and their quite keen on that because you say, well, "These are the books we bought, you know, with the biscuit money", and of course they all want to read it then,

I: Yeah.

T: And I did, I read some of those, 'cause I got fairly shortish ones, I tried to get the range, you know, some sort of- I got a couple of almost picture type books, and then I got one perhaps they might of seen, it was from a cartoon story off the television, so that was, you know, a lot of pictures, and then some others, of authors they hadn't heard of, 'cause I want to try also to get away from Roald Dahl, they **know** that one,

I: Yes.

T: They're quite **long** those stories and you need some shorter ones. And, um, yes I read a few of those and they got quite keen, and when you've read a few, of course, they all want to read it then after you've read it.

I: Yes, and we read one called "The Singing Sink" and that's really quite a funny story,

I: I've never heard of that?

T: That was really good, it's got some good pictures in it as well, and of course they were all keen then to read that one, so that was quite good. Just to get, you know, just to sort of say, "Well look, you know, this is a really good book"

I: Yes. The enthusiasm?

T: They don't- you know, it is lacking I find, and I think it's because a lot of the parents don't read either,

I: Yes.

T: You know? They have a book- some of them go to the book bus that comes round.

I: Is that- you don't have a library locally?

T: Well I- no I think it's over the big- main road, over the other side of Braunstone Lane,

I: Right, so you have a book bus *come out*?

T: *So there's a book bus*, and I know some of them are quite regular users of that. Yeah, so that's quite nice.

I: OK, have you got any others like 4 and 11?

T: 4 and 11, um, (2s) yeah I think probably 1 I would put in that category as well. (3s) And possibly 15. And, yeah, I think 10 as well actually, he needs a bit of a push, he's the one who doesn't read properly, doesn't write either. You know, I mean **very keen**, very keen Mum, she's- I mean she's lovely, but she'll say, you know, and I mean he could read to his sister, but he's an only boy with four sisters, one older sister and although she could probably hear him read I don't- he's the sort of lad that I don't think would appreciate that, so, it's a shame really because he needs a bit of a push.

I: Yes, it must be very difficult, what do you do in situations like that? Because the other staff here have said exactly the same thing, it's not an infrequent problem.

T: Well I think you've just got to encourage them **here** as much as you can. I mean I find listening to readers on a regular basis is really hard work, I mean you've got to be dedicated to do it because, you can set them off on a task, and then you start off with a reader, you

know, and I mean you've obviously got some sort of class noise so you have to sort of try and shut that down, but then I mean it's not long before children are coming up and saying, "Well I need help with my work", or this that and the other.

I: Yes.

T: So I mean the system is you either, if you've got an ancillary in, I mean, they'll hear readers,

I: Yes.

T: Or you hear them, you know, at dinner time and break times and things like that.

I: Yes.

T: I mean if you want to them on a regular basis, I mean some you don't need to hear as regularly as others, I means some of these better readers-

I: Oh yes.

T: I mean they can come and read their work to you, and "OK, that's right", and you know, I mean you know, we have- let me tell you about- we have a period called ERIC.

I: Yes, yes.

T: And you can see, you know, who's reading with enthusiasm. Yeah. I read as well during that session.

I: Yes, as a role model?

T: We all read.

I: So there's no adult literacy program that's local, *that you've got some* school links -

T: *Well I think there is*, no not from here-

I: *Separate?*

T: It's more with the secondary, it's based at the secondary school, and I think there might be something over at that unit across there, but it's more- yes it's more linked with the secondary school.

I: I see.

T: I mean I've heard, I had a parent, well she wasn't one of my parents, but she was saying that, she didn't write very well and she said she'd been actually, I presume to an adult literacy, and hadn't done very well and had given up, and I said "Well you didn't ought to have given up really, you ought to have stuck at it" but that's it you see, I don't think they give it- long enough really. I mean this lad's mother, I mean I was quite surprised really, I don't think I'd ever come across anybody who couldn't write their name before.

I: Oh dear, that's-

T: And when we got to parents evening, what we do is we write a comment on a booklet and they have to sign to say that, yes they agree with that, and that they've been,

I: Yes.

T: And she said, I mean she wasn't at all embarrassed, she said "I can't actually write my name but I will put a cross, and she signed with a cross". (3s) [both sigh]

I: Well yes, that's not a head start for the child.

T: No, she's not going to help at all with writing or reading, because she can't.

I: But the support's there.

T: Yes, I mean yes, she's brilliant! [both laugh]

I: Oh well, I suppose the school can't do everything.

T: That's right!

I: Right, I've got-

T: But you say to them sometimes there's so many lovely books out there, you know, why don't you want to read a few? (4s)

I: OK, I've got child 2, 9 and 10.

T: 2, 9 and 10. (2s) Right. (4s) This is a more difficult combination.

I: Oh, why? That's interesting.

T: Well they're all pretty different really in their own way,

I: Right.

T: I mean number 2, I mean she's quite a good reader, reads quite a lot at home, sister, bigger sister hears her read quite a lot, she's reading longer books. 10, I mean this is the one we were saying about his mother, I mean he loves school and would read to you, he would like to read longer books but realises, you know, he's better off with the shorter ones really, and he's been going through, I mean the same sort of process with him, if he can read a whole book, you know, or, lets read a page each and see if we can get through, you know,

I: Yes, sharing.

T: That's much more fun, I mean I'll say to them, "Well OK I'll read this side and you read that side". And then B. [child 9] is the one who is really struggling.

I: Well can you think of one small thing that they're similar on, it might be for completely different reasons, that's anything to do with reading, from their attitude, their preferences,

T: Well preferences, yes I suppose 10 and 9, we've just got these new books about motorbikes, you know, "That's great, you know!"

I: OK right, 10 and 9 are similar in that they er,

T: Yes, similar interests.

I: So they like?

T: Football.

I: They like 'boy's books' is that what you're saying?

T: Well yes, when B. came back with this new book, I mean I'd been told they'd got these new books down, you know, in the language room, and of course, T. [child 10] wanted to read it as well because it's about motorbikes and a lot of them have actually got, you know, these- motorbikes, not proper motorbikes, you know, that go on the park, so of course they all want to read that then you see.

I: Where as number 2?

T: No definitely not, she wouldn't want to read about motorbikes, no.

I: OK that's fine. That's a- yes that's a clear similarity and difference.

T: "Similar interests" I'll put then. Yes, I mean these two often- and also you see, T. [child 10] he's very into snakes and things like that.

I: Mm.

T: And when they have ERIC time he'll often- they'll sit together very often and just, not read, but look at a book about reptiles. [T very dry but I laughing] His Mum actually brought his snake in for me to hold, I had to be very brave.

I: He's got a snake? [incredulous]

T: Yes, yes. [tone implies that T very much wishes he did not]

I: So reptiles, motorbikes and football. Right. And she'd [contrast] like stories, non-fiction/

T: Yes, she likes non-fiction, I think the sisters got a big influence there, she's got, I think she's the youngest probably, and a **much**, much older- I mean the sister's got a little boy of her own, and I think she's quite into reading, you know, novels that sort of thing.

I: OK. (6s)

T: Well novels I suppose, rather than reading more books about topics.

I: And she's more capable?

T: She's much more capable. Story books. [writing]

I: Have you got any others who are into motorbikes and reptiles?

T: Oh yes definitely 15!

I: Right, 15. [both laughing]

T: Definitely! Yes, one of the trio, you know. Now it's interesting these two really are not into football, now a lot of the boys are, [World Cup!] but these two are not, they're more into, you know, reptiles and motorbikes and T. likes to sort of, you know, get a girl to go "[squeaky yelp]" set you off going like that. Bad, oh after I had this snake in, you knknow, one up, one of the girls got her Dad to bring his spider in, "I'm not picking that up! It's staying in the box!". [both laughing] But that was great actually because Dad came in

and he was obviously, you know, [drop to confidential whisper] a nutter about spiders. And what he told the children was wonderful, and the things they asked him, you know the questions they wanted to know, because T. had actually brought this snake's **skin** in, that was what he'd first of all.

I: Oh I see, the shed skin.

T: And it wasn't very long, I say snake, but it was only about this long, and he brought this- and you could see where it had- it had just come out, like- just - [speechless] no hole in it, it was whole, it had just come straight out, he said it was from birth, and it just crawled out of this skin,

I: Yes.

T: And apparently they do that, sort of quite often, and then he brought the snake in. Very brave. And then with this snake they asked similar sort of questions because the spider also, you know, he'd got a skin as well he could show us, it sort of moults.

I: Oh really? I didn't know spiders moulted. Well I never did.

T: Yeah, he said if you're not careful it would bite. He would've let it out but he said it was being a bit funny that day and it kept running off and I thought-

I: You didn't mind it staying in the box?

T: No! Chasing that around the room, it was quite a big one.

I: OK! Next three I've got 5, 7 and 8. (4s)

T: Erm, oh right, you've got three girls here then. (2s) Similar. Well they're all quite similar really, because they're all very capable, one's one, well yes there is one difference, I mean one is not quite as capable, but has got the keenness of the whole three, so she's not quite as capable and all- there's two of them actually, well that's a difference, two of them actually tutor. We have cross age tutoring.

I: Listen to younger children?

T: Yeah right. V. would love to, but I mean we're only allowed so many, I mean she would love but she doesn't actually because we felt she wasn't quite ready for it, she will be next year, I think

I: Right.

T: So two of them do this cross age tutoring.

I: OK, so who is that?

T: So that's 5 and 8.

I: So 5 and 8 do the- tutor younger children. (4s) But they're all quite capable and quite keen?

T: Yes, oh yes, I mean V. is very- she wants- she's desperate to do it, you know, and that's quite nice I mean, you've seen, they have a little booklet that they have to fill in and say what they've read and how they've read and they go- I think they go three mornings, just for ten minutes at the end of the morning, we are actually going to change the formula now, next year, and sort of do it on, because it was supposed to be every day,

I: Yeah.

T: But we found that, like one day we have choir, it wasn't convenient, and then another day the little ones are doing something,

I: I know, yes!

T: So it works out, yes, they go three mornings, so we're actually changing the format for that next year, it will be the same sort of thing and a Year 6 child will have a Year 3 child, and they, as much as possible will stay with that child all year.

I: Is it Year 5 you've got?

T: Yes.

I: Right.

T: Yes, it's Year 5 and Year 6.

I: Right, are the tutors?

T: Yeah. That's right.

I: Have you got any other tutors in that fifteen?

T: Yes, I've got 3,

I: 3.

T: And 1 is actually, although she's not as good, she was **desperate** to go,

I: She really wanted to?

T: And so we actually put her with a very, very poor lad who just, she reads to him,

I: Right. So they both get, get a lot out of it?

T: Yeah, he is particularly poor, but she was so desperate to go, we felt, you know, that keenness had to be, um you know-

I: Yes, yes, not to waste it.

T: So she goes although she's not as good as the others. We've got 5 yeah 5, 6.

I: 6 goes, right, anyone else?

T: Well, 14 did. But he got a bit fed up.

I: Right, OK. [laughter]

T: So he gave it up after, I mean he did it for about a term and a half, and then decided it wasn't for him. He didn't want to do it.

I: OK, oh have you got the difference?

T: So difference, erm-

I: Although they'd like to?

T: Oh yes.

7s PAUSE

I: Right, OK, no pressure.

7s PAUSE

I: OK. Next three I've got 9, 11 and 15.

T: They're all boys on that side.

I: Oh yes because you ***** separated? [T laughing]

T: 9, 11 and 15. B.is the obvious one that goes, no actually M. goes for extra help.

I: Is that the reading support team?

T: Yeah, so that would be a difference, that's different difference isn't it?

I: So what is it?

T: 11 and 9 go for extra support, extra reading support.

I: Have they been for the whole of this year, or just a term?

T: No erm, 11 he's gone for last term and this term. I mean we can't there are too many to sort of go all year,

I: *So you have to share it out?*

T: *So we have to split our time up*, and we felt the girl who was going for the first term, she was really upset actually that she couldn't go anymore, but we said "Look you know we've got other children who need help as well", so 11 went, and then, he's the one that- I want to have him- I'd would like him to get, statement time,

I: *He's* the one that you're having tests done-

T: *So he*, that's right, so he goes.

I: Right, who else goes, OK, who else goes to reading support?

T: There's nobody else on this list.

I: You have four children going each term?

T: I yeah, I've actually got two on statement, but there's none here, none of these go.

I: It's just random.

T: Yes, I've got two on statement and there are- yes, there's another one that goes that I'm hoping the statementing will go through, but he's not on this list, the fifteen that I've taken.

I: Right.

T: So the other one is-

I: 15. So the difference there is?

T: He doesn't have extra support, but I've actually-

I: Does he need it?

T: He needs writing. Support for writing really.

I: Right. Not so much the reading?

T: Spelling. Spelling's terrible. He writes, he almost writes phonetically, and it's quite amusing to read really,

I: Oh that's-

T: Yes, we're nearly there! Yes, it's the letters that he misses out that's more interesting than the letters that he puts down.

I: Could do with a case study! [T laughs]

T: I know! I've got to actually- I've got a list, I've got a list of **fifteen** that I think could do with help next year, either with their writing or their reading.

I: OK, so um.

11s PAUSE

I: But he definitely doesn't go to reading support?

T: No. He needs extra help with reading but- doesn't have-

I: Right we've got everyone here who goes to reading support, OK. Then I've got child 1, child 4 and child 7.

T: 1, 4, 7. Well the two similarities are 1 and-

END OF THIS SIDE OF TAPE, TAPE CHANGED

T: Read the whole book.

I: Right.

T: You know.

I: Consolidating and-

T: They've got techniques but they need to sort of let's get the whole book read, let's have a little bit of, you know,

I: *Comprehension?*

T: *Understanding* as well, comprehension of what their reading.

I: And the enthusiasm you mentioned earlier?

T: Yeah. that's right.

I: Those are the two are they?

T: Yes.

I: Right.

T: So I'm going to put in-

I: Write as much as you want!

T: Learn to read whole book. [writing] I'll put "At one sitting", because, you know, that's what I want,

I: Yeah, it's the continuity isn't it, for the comprehension?

T: Yeah.

I: Even though you're picking books they can probably-

T: Well that's right, yes. I think, you know, if they choose themselves sometimes they choose books that are a little bit too hard.

I: Right.

T: Because they want to be seen, you're at Year 5, to be reading these bigger books, and in fact it's not to their interest really, because they take that long then to read it- OK they can read it,

I: They lose the thread?

T: Yes, it's lost on them and the enthusiasm's gone, you know?

I: Right.

T: I'll say sometimes, "Shall we try a different one, I'm fed up with this one".

I: Have you got all that down?

T: Yeah. So I'm encouraging them to read a whole book at one sitting, reading for understanding.

I: Yeah.

T: And I put and interest as well.

I: I know what you mean, and that's the same as um, you said before?

T: Yeah, and I mean V. she's- she reads quite a lot on her own anyway, you know.

I: She's fluent?

T: Yes.

I: And independent?

T: Yeah, yeah. An independent reader. She's the one that would like to go tutoring, but could now, I mean, you know, at the beginning of the year I thought, well borderline really-

I: Also she's made a lot of progress then? So you'll be pleased? (6s)

T: She likes to read aloud as well, I mean she'll read, you know, out in class, she'll read things out, if you ask her to.

I: Not shy?

T: No, no, definitely not shy. Where as some of them are a bit- some of them are not as keen, because-

I: Oh yeah.

T: They're a bit frightened that they're going to stop over a word or make a fool of themselves, but V. don't care really, make a fool of herself, no bother.

I: Have you got any others who are like those two specific ones in that, just at the minute, you want to, consolidate and build?

T: Yeah, I've tried to do that with 10.

I: 10 yes, anyone else?

T: Well I suppose in a way also 15 to a lesser extent really, he's been choosing, erm, I'm letting him choose- he's chosen- one book he choose, I mean he was really enthusiastic about it, we read quite big chunks of that at a time, although it was longer than I would've- he couldn't do it at one sitting but he read great big chunks out of it, which was nice, I would've liked to encourage him to do the same really.

I: What about 11, 'cause I think that came up when you said before about?

T: Oh yes, yeah.

I: So I've got-

T: But they're much, much shorter for him, you know, because we haven't got this continuity at home.

I: But you're- all of them you're consolidating?

T: Yeah, yeah.

I: Working on interest? Right, is that all? I've got 1, 4, 10, 11, and 15?

T: Mm.

I: Right. OK, last one you'll be pleased to hear!

T: Oh right, just get this in!

I: Got child 3, 5 and 13.

T: Right 3, 5 and 13, ah now they're all quite competent readers.

I: Yeah.

T: Two of them have got the interest, one of them hasn't, you know?

I: Right.

T: So that's-

I: Yes, that's fine to put the same thing down, I mean ,

T: I mean, you know, N. (if you can get to do anything with you're working hard) I've heard this all the way through the school, you know, they say he's got the brains but he doesn't use them, and I said "I've never come across such a frustrating child" you know!

I: Oh dear! So er-

T: He just talks! All the time! You know in assembly,

I: He takes up a lot of your time?

T: You know he won't be quiet, listen to me! But he's really bright. I find it very frustrating you know, I mean he could- and you'll say to him, "Five to twelve, you know you've got five minutes!" and he'll get done in five minutes, you know, **almost** as much as he would've done if he'd, you know, "If you can do that in five minutes why couldn't you

have done that and get on to-" I mean I would- now these other two you see, I- they know and I expect them to go on to something else.

I: Right.

T: I set a middle line, and then these particularly girls always finish it and go on to the next piece of work, Miss has always got another piece of work on her desk, you know,

I: Right.

T: And they know that and I expect them to do that. And I would expect him to do it, but he never gets the first bit of work finished!

I: He's not fulfilling his potential?

T: No, he's certainly not, and I mean that's what his Mum says, you know, that's the story of his life, only child- you'd think, you know, he'd have plenty of back up there, but- I mean I'm sure she would, you know, but- no I've lost my train of thought now.

I: And this-

T: Well, enthusiastic.

I: They're all very competent readers, but these two are the enthusiastic ones. Keen, is that the word?

T: Yes, very keen. She'll sort of vie for whose going to get the work done first.

I: Where as?

T: Yeah. They irritate me, children like him really. You know, you think "Why don't you use this?"

I: Yes I suppose when some try so hard,

T: Well he's just lazy, talks non-stop. The other children call him motormouth!

I: So reading is not a big favourite?

T: Ah dear.

I: Takes up a lot of your time?

T: Well I don't know you just- it's almost like automatic, you know, "N. get on with your work", "Stop talking", "Stop disturbing the other children" [laughter]

I: OK have you got any others like, um,

T: Like N. ? [joking]

I: Thank goodness! Like 3 and 5?

T: Not to the same extent.

I: That's fine, that's fine.

T: No. They are my high flyers really, those two.

I: OK.

T: There are others- I mean 8 is- is- she gets the work done but she's a lot slower, so she never actually gets on to the extra piece of work.

I: That's fine, OK. So the last thing you say- you've said- right we've got all these different things here but if you could just pick one thing that makes your children similar or different, like the most important thing for their reading, could you put your finger on it and say, "That's the most important thing"?

T: That's the most important thing?

I: That's the most important difference for their reading?

T: I suppose their enthusiasm really.

I: Right.

T: I think. Yes, I mean because that has a lot to do with how well they do in many cases, I mean if they're enthusiastic to come and read, have a book to take home,

I: *It's their experience?*

T: *Certainly* their enthusiasm to take it home, they're **going** to make improvement, if they're not, you know, then it begins to be hard work.

I: I suppose at this age it's the one thing-

T: I mean you know I say to them, you can learn so much from books. And it's gotta help in other fields as well, it's gotta help- I mean I've noticed it with my son, I mean he's always been, we've always read to him an awful lot, he's an avid reader now, and he just

soaks up information, he comes up with the most, you know, **unusual** comments, from what he's read, you know?

I: Could you just jot down that,

INTERRUPTION

T: It's alright we're going.

I: The most important thing-

TAPE STOPPED

Pilot Repertory Grid Interview with Miss PT P15 Pink Primary School

8 June 1994

Interviewer: Repertory Grid [] it was invented by a psychologist called George Kelly and, it's a way of getting people to describe their ideas. So I thought it would be quite good to do one of these because I can get you to do all the work and write everything down, right?

Teacher: Alright, I see.

I: So here's a piece of paper for you to write on, you can keep that or throw it away so I don't need to see that-

T: Alright.

I: But this is what we are interested in, (2s) your ideas about the students. Now, along the top I've got one to fifteen, so that's the child so I can just call them child one, two, three. Down here I've got sort which are the different combinations of three children, what we'll do is pick out three children and ask you to tell me something about them and then you can write it down and er- a construct is just an idea, as psychologists call it, and contrast is just whatever the opposite of that idea is, so- (2s). Because I'm interested in reading, um, I want it to be something to do with reading, but that's the **only** limit, otherwise it can be anything at all. So er- I think the best way to explain it is to **do** one really.

T: Mm yes! I was going to say that's a good idea.

T: When you're writing it down, feel free to write as much as you want, and change it, just cross it out and add bits. And I've said if it helps to think about how much you need to write to be clear, if you think that the person reading it was another teacher, so however much you need to write to make it clear to another teacher, maybe the teacher they would get next year. So, OK, right. So if I asked you to think about child 10, 11 and 12-

T: Uhuh.

I: That's it, you'll know who those are- you might want to jot it down or something. Can you tell me an important way in which two of them are similar to each other but at the same time different to the third child.

14s PAUSE

T: Ah yes, sorry I'm with you, similar and different to the third child, yes.

I: Right, well er, which two are similar? (5s)

T: 10 and 12.

I: Right, and how are they similar?

T: Approximately the same reading level, reading age.

I: Right, the reading age, and the third one's?

T: Much lower.

I: Much lower, right, OK. So, do you want to write that down? (3s) Whatever you like really, in your own words. [laughter] You don't need to write that down [the child identification numbers] just the similarity, so they've got a similar reading age. (4s) How do you test their reading age, do you use a commercial test?

T: For the lower end ones, yes. The other ones (2s) it goes really on how well their reading within their reading books.

I: Which level their on in their scheme?

T: The Ginn scheme is very well structured anyway, so you've got an approximate reading age anyway know what level their reading at.

I: Right. OK, and the difference is that they're- this child has a lower reading age?

T: Oh sorry, so that shouldn't be there?

- I: So here you write down the similarity, and here you write down the difference. Perhaps I should have written that along the top instead, *****. Right.
- T: Yes, I was ***** together.
- I: Right, next time I'll do that.
- T: Well, if you just, I was going to say if it's just in brackets it-
- I: Right, now if you look through that list of children can you tell me if there are any others who've got a similar reading age to 10 and 12? (2s)
- T: Yes, do you want the numbers of them?
- I: Yeah.
- T: 1, 13, how similar?
- I: As similar as those two are similar.
- T: Right, 1 and 13.
- I: OK, so that's a sort and you just keep doing this a few times, so you are throwing up different combinations of three students and looking for different contrasts.
- T: Ah, right!
- I: You might find, when you've done a couple, that the similarity you want to say something you've already said, and that's fine you can just put the same thing down again.
- T: Again.
- I: I don't expect an infinite number of contrasts to come out.
- T: But if possible- put a different similarity if possible?
- I: No, whatever you think is the most striking difference with those specific three children, because I mean it depends on the children and you know them the best.
- T: OK.
- I: OK, so if you look at child 6, 13 and 14. (4s) Are two of those similar in some way and different from another one?
- 10s PAUSE
- T: Yes, 6 and 14.
- I: Alright, in what way are they similar?
- T: They both struggle with their reading and to some extent plateaued within Year 3 and the start of Year 4 and have both started to come out of the plateau now.
- I: Oh so you're just beginning to-
- T: Come out again.
- I: That's good, and- right so I've got- that's quite a specific pattern isn't it? What about the other one?
- T: Come down as number two?
- I: Yeah that's right, that's sort number two, we're looking at the second-
- T: The other one's just, she's almost just gone on nicely-
- I: *So they've got steady progress?*
- T: *In a steady progress* upwards.
- I: So it was in Year 3 was it that they kind of- stopped.
- T: Yes.
- I: Any speculations as why? (3s)
- T: Yeah, because their comprehension has been poor for one thing.
- I: Right.
- T: Well all three are second language children, but 6 and 14 have had comprehension problems with this, and that has actually held up their progress.
- I: Right. (4s) Write as much as you want, you can check it over afterwards and change anything.
- 32s PAUSE WHILE TEACHER WRITES
- T: Does the date matter as far as this is concerned, doesn't it?
- I: Yeah.
- T: As far as that's concerned, but in the last term, then you know that it's a- ?
- I: Yeah I've got the date down here.

T: I suppose I should've actually put down summer term.

I: That's fine, yeah I can understand that. Right so, oh, I don't suppose there will be many children there who've got that specific pattern. Is there anyone else in that fifteen?

T: With that pattern?

I: Yeah.

T: Yes, definitely, number 2.

I: Really? Oh right.

7s PAUSE

I: So it's not that unusual to kind of get- reach a plateau at this stage?

T: Oh no no no, not at all, I would also say number 11.

I: Right.

8s PAUSE

I: OK, that's great, right third set. Child number 6 again, and number 9 and number 12.

16s PAUSE

I: Is this difficult?

T: Um.

I: Are they all too similar or too different?

T: No I'd put together 6 and 9. (2s)

I: Why?

T: I would say they have made slow steady progress through the year where as number 12 has just gone on at a fast steady progress. [laughter]

I: That's good! Right.

17s PAUSE WHILE TEACHER WRITES

INTERRUPTION FOR TEACHER TO DEAL WITH CHILD

T: Sorry do you want to stop that for a couple of minutes?

TAPE SWITCHED OFF

I: Right.

T: Right, we want anybody then that-

I: Has got slow but steady progress.

INTERRUPTION TO DEAL WITH CHILD

T: Um, I've forgotten what we were looking at now. Right, oh yeah. 3. (3s) 5. (9s)

Yeah, just 3 and 5. Interesting doing it because you kind of realise how much you-

I: How much you know about the children?

T: No, I'm saying how much- you find out how different they are, in lots of ways. You merrily lump together a big lot, "Oh yes they've done well", but when you actually look at it like this it makes you think; well yes, those have made better progress, these have been a bit more jeky, or various things. *It's quite revealing.*

I: *Right, good.*

T: Well yes.

I: Well I hope it *has been interesting for you!*

T: *I hope* I don't spend too long next year looking at things like this but it is an interesting task at the end of the year.

I: Yes it's a good time to do it I think, because by then you've seen how they've developed. Right, I've got child 3, 14 and 15.

32s PAUSE

T: I feel tempted to fall back on the old cliché two girls and a boy don't you?

I: Right.

T: When you end up thinking, aargh!

I: Do you think that's relevant to their reading?

T: No! [laughter] That's why I panicked.

I: Right, we're not going to allow that one.

T: No, I didn't think you would do. Good grief.

I: And are they all very similar *or* completely different to each other?

T: *No*. Well-

I: They've got nothing in common with any-

T: Well no, 'cos I mean one of them I mentioned with **that** [first construct] and one of them I mentioned with **that**, [second construct] so that shows that those two are different-

I: Right.

T: And the other one's- (5s)

I: Is there some way in which, anything to do with their reading, or their attitudes to it, or-

T: Yeah, yes there is actually, 14 and 15.

I: Right.

I: I knew eventually I would find something. 14 and 15, although both to some extent have found it hard in- for various different reasons, not abilitywise, but for various different reasons, **both** are very good at, given work to do, actually doing it.

I: So they just get on with it?

T: Going and getting on with it, with home work type things, and you give them some sheets to do, or a task to do from the reading and both are very good about- they may be slow, but they-

I: So though they struggle with the reading, *they will* do it?

T: *They will* plod on and get on with it. Well one of them isn't particularly slow with reading, well not as slow as the other one anyway.

I: Right, that's great.

T: They've both been prepared to work at it.

20s PAUSE WHILE TEACHER WRITES

I: Where as with the other child?

T: Well, I'd say he goes in fits and starts. I think *that just about sums him up*.

I: *Some days he works* and some days he doesn't?

T: Well, I mean he might have two or three weeks of really buckling down and then it switches off.

I: Does he like reading though?

T: Yes I think so, I mean I think that to some extent it could be a case of what's expected of him at home.

I: Right.

T: He's got a handicapped Mum and I know he does an awful lot for his Mum. A lot to help, so it could be that he hasn't got the time-

I: He's got other things-

T: Other commitments and pressures on him, where as the other two- you could almost say to some extent that was the gender side of things anyway, because they're- girls do tend to have a bit more, be apt to go around with a bit of paper and pencil in their hands don't they?

I: Yes, yes, right. Are there any others who just get on with their reading work?

T: There's quite a few who go around like that.

I: So this won't be very many, not as many as you'd like anyway! Right.

T: Right, I suppose the one word I want to look for is consistent.

I: Right.

T: Is the word that strikes me, I suppose more than anything else, in which case number 8.

I: They're steady workers?

T: And number 13, oh and number 12 (2s) but that's it. But I could give you a lot that go in fits and starts. [laughter]

I: Oh well!

T: I suppose you could logically say that all the others are that, aren't they?

I: Right. Now we're looking at child 4, 11 and 13. (3s)

T: Oh yeah, 4 and 11.

I: Right, what- what have they got in common?

T: Both have had a lot of problems with reading and both throughout the year have been to- um-

I: Oh, to reading support?

T: Reading support teacher that we've got.

I: So, what's the kind of basis of the problems?

T: Well, one of them has been- all the time through school has gone very slowly.

I: Right, so it's a general difficulty?

T: General slow progress, the other one was a complete non-reader at the start of the year, there was a minor panic about it, in so far- well, I don't mean panic, I mean you know, kind of "Oh my grief how are we going to have to statement" teachers- he was just doing nothing.

I: So it was for different reasons but they've both had a lot of support from reading-

T: Yes, one- well the one was a long- they both were a long way behind, one much further than the other.

I: Right, but has he started to make progress now?

T: Yes, he's better than she is.

I: Oh that's- so in a year you've turned it around.

T: He's gone from five two to seven four in reading age.

I: That's great, that's fantastic isn't it?

T: It's not bad going, mind you it does frustrate you thinking "Why didn't he do it before?"
[both laughing]

44s PAUSE WHILE TEACHER WRITES

T: Do you know S. W.? It won't help you for me to put her name down then?

I: Is that the lady who does your- [reading support]

T: Yes.

I: She used to be in Literacy Support? Oh yes, I was- yeah I was just speaking to her-

T: Well, I've put ex-Literacy Support teacher, because that'll mean more to you than actually putting her name down.

I: That's right, yeah.

T: Right, where as this one-

I: Where as-

T: I've forgotten, 13. Right.

I: Are they a good reader, fluent? So when you say good reader, their reading age would be ahead of their chronological age would it?

T: *****

I: Right great, anyone else who's from that 15 whose been to reading support?

T: Oh yes,, number 2, number 7, number 8, number 15.

I: Oh you've got quite a few there haven't you?

T: She had a long list.

I: That's a lot, is it a bad year?

T: That's why I was saying-

I: That several were being statemented?

T: It is an- academically it's an extremely- (2s) unusual year, I would say, because there are extremes. We've got a lot of very bright children in lots of ways, both academically, musically, you know, a lot who are doing really really well. An awful lot who've got their reading age well above their chronological age, you know kind of a year or two above it, but at the same time in contrast we have this heavy number of about ten who are right down at the bottom end, and because I'm the Special Needs Support Teacher, the co-ordinator, they were all put in my group, you know which is logical, you might as well put them where the support is going to be.

I: You've got quite a diverse class.

T: Yes, it's been very much a- it's been lovely to work with because it's-

I: Can you make use of that?

T: Yeah, very much because it's enabled me to- I mean the old saying birds of a feather, it rings true when it comes to children, well it rings true when it comes to adults as well, but I do think when it comes to adults if your backgrounds are different it doesn't matter so much. Hello!

INTERRUPTION FOR TEACHER TO DEAL WITH CHILD

TAPE SWITCHED OFF

T: Oh yes, so what I've done is, I've done a lot of mixed ability work with them. For all the topics we've worked in a mixed ability way, but I've guaranteed I've made sure that every single group has had two children who can read and write well.

I: Do they act as scribes?

T: Yes, and they also got one **at least** one that is almost a non-reader and one or two who are either poor or middling kind of thing. And I've said that- I've done it so they're not friendship groups at all, so I've split up friends deliberately so they work this way, but then I've said "Look, you've got somebody in your group who can act as a scribe, and somebody that can act as a reader, and for goodness sake make sure the other ones do something, talk!" But it has worked actually! It's done well, and when we did one of the history topics that we do, when we did Tudors and Stuarts, and each group had to do researching about their Tudor king or queen, it meant they had to help the others, and they were reading out of books for them and saying "Look, can you draw this picture because this is so-and-so" and explaining what the picture was about and how it fitted in, and saying "Look, you draw the picture of it, and then perhaps you can copy just that sentence there to go with it, that will explain who it is" So they got fully involved with it and they knew who they were drawing and everything, and about it-

I: And they could see the benefits of the reading, they could see what other people were getting out of it.

T: Oh yes, and it actually works quite well. So I've-

I: So you're quite pleased with that?

T: Yeah, and it was very good because it wasn't just one or two who were being relied on to do everything because each group had a couple of people that they could do it for and then- they've always had somebody that's prepared to do the talking, they might not have been a very good reader but they were prepared to stand talk, for the others, you know.

I: That's good isn't it?

T: It's worked very well.

I: Right. I've got- for the next three I've got child 2, child 9 and child 10.

12s PAUSE

T: Right yes, OK. Two of them are both English second language children and one of them isn't.

I: Right. And who are the two who are similar?

T: Sorry, number 2 and N.

I: 2 and, er is that 9?

T: Oh sorry, 2 and 9, yes.

I: 2 and 9, right, so they've got English as a second language, and has that held up their reading, or is it- ?

T: It has in so far as- a lot of the time, sometimes their-

I: Go on!

T: **Comprehension!** It's because I was going to say construction, and I thought no, no, no. It has effected their comprehension and it's also been their- (2s) their non-understanding of, to some extent, the English culture but lots of things that children with an English parent would automatically know such things. Or you know- and so that has hampered, to a certain extent, some things because they think, "Well what's one of them?, What do you use that for?"

I: Right, yeah.

T: Where as the other one, she's a mixed race child, but her mother's English and her language is English, and so she's had no problems, and her general knowledge of things connected with- with everything that you do within school has been just what you would hope for with a nine year old child.

I: That's great, right. [laughing] How are you going to put that?

T: Why don't you write it up, that would be a lot easier!

I: Because it's in your own words.

T: Well it is, but it's in my own words on there now. [tape recorder]

I: Yes, actually I haven't recorded any of the others, I've just been getting people to write it, but that's true!

T: Because sometimes what you say and then what you end up writing, you think-

I: That's alright, it's more considered as well. So it's- the different one, it's more than having English they have lot of general knowledge?

T: Erm.

I: That must be an advantage as well,

T: Erm, yeah.

I: Of books, school related type thing? Come on, you say it it's your thing!

T: Yes, because to some extent it's- Mum's at college and so is pushing in this work ethic at home because Mum's got to get on and do her home work and everything to do. So I mean to some extent it's all gone round and helped with her book.

I: Yeah.

36s PAUSE WHILE TEACHER WRITES

T: What's the best way to say it? Lack of knowledge of some vocabulary due to their culture. Not being English. I mean I'm not saying anything against their culture, but I mean- are you with me? Because reading schemes in England are naturally geared towards an English culture, which is not their culture, I mean they're getting better [more multi-cultural reading schemes are available] because you're getting more and more things-

I: Have you got- I mean I've seen some more-

T: Yes we have, and their getting more and more- but I mean, to some extent it's inevitable in England your going to have English culture books, I mean if we went out to India there'd be Indian culture books, I mean, and we'd be the ones lacking-

I: At a disadvantage-

T: It's not to say that it's a- yeah, disadvantage is the word, not anything else.

I: Right.

T: Where as this one has had- (7s)

I: And a Mum who's got lots of reading homework.

19 s PAUSE WHILE TEACHER WRITES

T: Course, you won't be able to read my writing, will you?

I: That's why I jot something down here, so I-

T: So the work ethic is there.

I: Great.

T: There's a lot more sense you writing it, you can read what you've written. I tell you what I'll do it on a fresh piece of paper, so at least-

I: Oh right, can we just check through here, I suppose English as a second language isn't it?

T: Oh right, sorry.

I: That's what *we've got here* as the similarity?

T: *Aah well, in that-* aah well, it's the fact that they've had some comprehension difficulties because of this, not so much that-

I: Right, so just those who've had comprehension difficulties **and** English as a second language, as a result-

T: I wouldn't say it was just because they're E. 2 L.-

I: Right. So it's just those-

T: But they've had some comprehension difficulties **because** of it, because I wouldn't say that of all my E. 2 L. children at all.

I: Right, it's just specifically that.

T: Right, so we're talking about 2.

I: Right, that's it, who we've got 2 down anyway.

T: Oh sorry.

I: No, that's alright, we've got 2-

T: Well that's alright because it proves that I'm thinking-

I: That's it, consistent, very consistent.

T: 6.

I: Right.

T: Yes, I've got to be careful here because it's E. 2 L. and comprehension, it's the two things together that have made it not just one, not just the other. Erm, 9 obviously because we've got 9, 11 to some extent 14, definitely 15, yeah have I said 3?

I: No.

T: 3 to some extent as well, I mean obviously some are to a greater extent than others.

I: Yes, that's fine, that's great.

T: OK.

I: Right, next set of three children then is, sorry, 5, 7 and 8.

T: I want to go back to that [construct five] immediately.

I: That's fine if you want to put the same thing down, that's great.

T: They've both had a lot of problems with reading, well below their chronological age.

I: They've both struggled with reading.

T: Can I just write the same as five, because it's exactly the same thing I want to say about it?

I: That's fine, and um- so which two are similar in that way?

T: 7 and 8.

I: 7 and 8, they've both struggled, where as 5 has? (3s)

T: Well he's- (4s) he's not struggled-

I: He's typical, a typical reader?

T: Yeah, I would say he's a bit of a- yeah, he's not a constant steady progress like some of the others, he's a bit of an open and plateau, and open and plateau, and open and plateau. But I think that is typical of a lot of children.

I: Right, so he's your average child, right.

7s PAUSE WHILE TEACHER WRITES

T: How do you spell plateaus? I do think the average child kind of goes like that, yeah, but I've got a couple of them who've gone like that [straight up] all year, and just seemed to have gone on and on and on!

I: Great!

T: And not seem to plateau out at all, and you kind of think, "They've got to eventually". [laughter]

I: Right so the other strugglers, well if that's the same that would be 3 is it? (4s) No? 2? You tell me, who else has struggled with reading?

T: I think your looking at the wrong line, 4, 11, oh no it isn't, hang on a minute. 4, oh 7, 8,

I: 7, 8, right.

T: 11, 15, it should be the same as you've got for number five.

I: It is the same except that we had 2 as well, that's the only difference.

T: Oh yes, sorry 2 yes!

I: Right, that's fine.

I: Yes I'm sorry,

I: No problem, right.

T: I missed him, I think because- I put him in because he had the extra help from the beginning, but then he's kind of made good progress.

I: So he's not struggling any more?

T: He lost out the help after- at Christmas.

I: That's good. Right, another three children, number 9, number 11 and number 15.

22s PAUSE

I: Why is it hard?

T: Well it's hard because- in so far as they're at three different ends to some extent, but I could put- (3s) I could put two together because of the difference in one rather than the difference in the other two. I could put two of them as the odd one, for a specific reason, but not with the others.

I: What's the reason?

T: Well one of them is so far behind that she is actually going towards statementing. But that doesn't put the other two closer together.

I: ***** So their similarity is that their **not** so-

INTERRUPTION

I: OK, unless there's anyway in which they are more similar?

T: Well no 'cos I mean-

I: That's fine.

T: One's been kind of- (4s) well OK, no, alright then, alright then, yeah OK, I'll put together 9 and 15.

I: OK.

8s PAUSE

T: These are the two at opposite ends of the spectrum, but they've both tried hard and they've made progress during the year.

I: They don't have to be similar in all ways just the way you're saying.

T: And the other one, I could almost say is almost no progress.

INTERRUPTION

T: Thank you [to child]

I: Yeah, I mean they will be different but it's just are they similar in the way you're specifying, so they've worked hard and made progress, so you're pleased with both of them?

T: Let me say- let me qualify that, which reflects their I suppose (3s) ability is the word I want. Oh yes thank you. [to child] Ability? Yes, which reflects their ability, because one has not made too much progress, but is the statementing child, but *for her*-

I: *For her*-

T: She's made lovely progress, and the other one has made lovely progress but is much higher up the scale, but progress that I would expect but the other one-

I: So it's appropriate progress

T: It's appropriate, yes.

I: Appropriate to their ability, fine.

T: Appropriate progress [writing], is that OK?

I: That's fine. Is there anyone else who's made-

T: Mind you that's going to then give me an aggro isn't it-

I: Trying to think of people who've also made-

T: "Appropriate progress"

I: Appropriate to their ability, (2s) and tried hard.

7s PAUSE

T: Right, 2.

14s PAUSE

I: I suppose their aren't that many?

T: It's very difficult knowing what to put down, because the ones- these two who've kind of sailed on with no problems and made steady progress, I suppose yes, those two ought to go down logically, 12 and 13,

I: Right.

T: Because it does- if I look very carefully at that second one, "Which reflects their ability" I would say 14 has also made progress that reflects their ability. I would say 10 now has,

I: That's alright, that's fine.

T: I mean I've got reservations about two in so far as they have both made wonderful progress during the year and I would say that it now reflects their true ability that wasn't being reflected before, but the progress they've made has been a much greater amount than those have made, like the one who got two point two years up in his reading and the other one has almost gone up two years in his reading age.

I: He's definitely tried hard and made progress then.

T: Oh yes they both have.

I: That's fine, no problem.

T: Do you want those added on then?

I: Yeah, I've got 2-

T: In which case that's 4 and 8.

I: 4 and 8. That's great, OK child 1, child 4 and child 7.

16 s PAUSE

T: I hardly dare say what I want to say.

I: Go on, say it!

T: Right, I would say 1 and 4 then.

I: Right, 1 and 4 similar in that?

T: They've both had- (12s) great interest shown by parents, well by Mums. [laughter]

I: Great concern shown by Mums?

T: Alright then-

INTERRUPTION TO DEAL WITH STAFF

I: Great interest shown by- *What do you mean by that?* How does it manifest itself?

T: *I don't* really want to say concern, well in so far as that they will, I would say at least once a month they come to check on how well their children are doing, their concerned that they're doing well, they know that they both got a tendency to let things drop a little bit.

I: The child-

T: And their both keen enough, and want them to get on-

I: *They're checking up?*

T: I suppose they are checking up, making sure they're doing everything, and then putting on a little pressure at home, for a little while, which eases off after a while, which I believe it should do, I don't believe in constantly having pressure on from home, I think it should ease off, but then they've come back and they've-

I: Checking up?

T: "I haven't seen you for a while, is he still getting on OK with his so and so"

I: Right, I understand what-

T: Are you with me?

I: I understand exactly what you mean.

T: But now you want me to put that into words?

I: Yeah.

T: Great.

I: What you just said.

12s PAUSE

I: Because the child has a tendency to stop and start a bit? (4s)

T: Yeah, and to see how they can help.

I: Yes, I suppose that's it, showing great interest.

T: Well that's why I wanted to put interest, that's why I didn't like the word concern really.

I: That's the right word, definitely. So what's the contrast?

T: Well I've not seen the parents-

I: At all?

T: Much. Mum once.

I: A parents evening?

T: No.

I: Oh right, that's quite unusual is it?

T: Um, and Dad a few times when collecting him. I mean she showed great interest in front of the psychologist but then it's dropped off already.

I: She showed- sorry go on.

T: Well she showed the interest to the psychologist about how concerned she was, but it's dropped.

I: Right.

T: So it's a bit of a "I know what's wanted but I'm not going to do it" which is an awful thing to say isn't it?

I: Are there any other parents who show that great interest?

T: I should think, ironically enough I should think the two who they are are there. That's really those two.

I: That's fine. Right, that 's the most salient point their similarity. Right, one last one,

T: OK.

I: Child 3, 5 and 13.

INTERRUPTION TO DEAL WITH CHILDREN

T: Right yeah, 3 and 5.

TAPE ENDS

T: I said to some extent they both need constant encouragement to keep going and progress.

I: Right, encouragement or is it attention and encouragement?

T: A boot up the backside. [laughter]

I: Right. Needs a lot of encouragement, right.

T: Well, needs a lot of encouragement is a nice polite way of saying they need a boot up the backside isn't it? [laughter] But the other one is self encouragement and desire and just- and just great.

I: They just get on with it.

T: Just gets on, I mean,

I: *Great*.

T: *Moans at me* if I don't mark her work quick enough, you know like; "I gave it to you ten minutes ago, why isn't it marked for me to have another one" Really, really self-motivated, that's the word.

I: Self-motivated, right.

T: Wonderfully self-motivated.

I: Right, have you got any others who **aren't** wonderfully self-motivated, who are like these two?

T: Yes, I'll give you the numbers! [laughter] 1, (6s) aah can I just qualify that a bit?

I: Yes, yes sure, add as much as you want.

T: Because what I wanted to say- I've just suddenly realised looking at somebody else, (2s) it's especially with work away from- (4s)

I: Away from school? Is that their reading? So in the classroom they'll stay on task?

T: Right, reading related tasks, that they have to do, that's the thing that I was specifically

I: *Right*.

T: *Not*- I mean in school they're fine, I mean no problem-

I: But when they take a book home-

T: It's this you know, kind of like, well you've got "Right, here's the reading task that you've got to do with it", or "Here's the sheets I want you to do with it"

I: That's what they take home?

T: And then next week have you done them? "Oh well, nehneneh" and there's always "en" thousand excuses, where as some of them will just get on and do it like, and I realised I ought to qualify a little bit so it explain exactly what I was- right, number 1, (3s)

I: 1, got 3 and 5 already. (6s)

T: I'm not sure whether number 2 actually qualifies in the same way because I think his is often an understanding problem, he just doesn't get his act together to ask people, rather than- (3s) that is more because of a lazy attitude, not a lack of ability, so that ought to be specified as well, are you with me?

I: Yes, yes.

T: Because there is a difference between the two.

I: Oh yes. (4s)

T: Right, 1, 3, 5, 6,

I: 6. (5s)

T: 7 although he's the other end of the extreme- the er ability, he still hasn't got that about it.

I: He doesn't do what he could?

T: No. (5s) To some extent 11, yeah that's it.

I: Right, great, that's fantastic. Now, if you're looking at all fifteen together, of all these things you've come up with what would you say was the most important, if you could just have one, similarity and difference, the most important difference between all of those children?

T: I'd say the last one.

I: Right. (3s)

T: Self-motivation.

I: So it's not their ability that- *it's more sort of-*

T: *No I*, no because-

I: It's their motivation?

T: Yeah because-

I: Right.

T: I feel desperately sorry for kids who are really desperate to get on and really try hard and struggle, and you think **it's not fair** when you've got some that-

I: Could do it?

T: That are bright and able and just **waste** what they've got, and **that** I would say is the thing that-

I: Could you put that down for me then? (3s) The most important difference with them, for all those children?

7s PAUSE WHILE TEACHER WRITES

I: Where does that motivation come from, is it just like something within the child? *Or can you give them that motivation?*

T: *Well I think that* to some extent you can give them that, I think Year 4, with some of the lower end ones, it's because they haven't been able to achieve and they've lost-

I: *They've lost enthusiasm?*

T: *Anything they've got*, some of them I think, because they can do things, they don't think they need to bother.

I: So they've lost it as well?

T: So, to some extent they've lost it, and- (3s) well, I do think there's a lot to be said- I do think girls **tend** to be- I mean they do know that scientifically, fact, girls develop this reading writing side of their brain first don't they? And that's why younger girls tend to do more pencil paper and drawing-

I: They do tend to do better.

T: Because that's the way their minds- and that's why the boys **tend** not to catch up until about the age of eleven, isn't it? Because of the later development. So I mean, you know I

suppose inevitably it's going to be to some extent sex comes into it. I think home circumstances come into it to some extent.

I: No, I'm not going to write it down, you can write that down, motivation and home circumstances.

T2: *Hi*, how's it going?

I: *Hello*, yeah good, I'm just harassing people and taking up all their time at the minute.

16s PAUSE WHILE TEACHER WRITES

I: But you think home is particularly important?

T: Well yeah, home is important, but- (2s)

I: But?

T: Because it depends on what their- what happens, I'm not saying- if you happen to be one of eight, and you happen to be one of the oldest in eight, you could find that you're dragged in, especially if you are a girl, that a lot of your time you've got a lot of pressure on you at home with looking after the younger ones, helping Mum with the cooking and that, and the time that you're actually able to do anything is limited.

I: Yes.

T: Whereas I mean if there's just two of you at home, you know, with a Mum and Dad, both of whom are um- one of whom is studying or both of whom have gained a lot out of school and got, (2s) you know, external-

I: *They've got a different attitude?*

T: *Qualifications*, you know they will probably encourage the children into it, but let's face it, I mean, some of them, I know, nobody in my group, somebody in another group, who yawned her head of the other day, and I said "Your baby brother keeping you awake?" and she said "Yeah", but if that happens, you know, I mean with a new baby around in the house, that can- that can stop that- with all the will in the world, no matter how well motivated people are, (2s) things can go against it,

I: Right.

T: Some parents can be too motivated. [darkly]

I: That's great, just checking through that, are you happy that that sums up what you think, or do you want to add or change anything, or is that OK? (3s)

T: Well, I didn't think of anything as I went along before.

I: So that's fair, that sums it up?

INTERRUPTION BY CHILD

T: Tell Miss C. that I'm just finishing with a lady and I'll be down in a minute.

I: Well that's that completely finished, you can keep that [list of children] and I'll take this [the constructs] away, that's really interesting, thank you very much!

T: Do we see the results?

Appendix E

Pilot Repertory Grid Constructs and Contrasts

These are the written constructs recorded by the participants themselves. The construct statement appears in normal typeface while the contrast statement appears in italics. The primary construct is the construct with the greatest total variance when correlated with all other constructs and appears in bold. Where there is a perfect correlation or a perfect negative correlation between the primary construct and one or more others they all appear in bold because they are identical. Where a grid was not fully completed it was dropped from the analysis and so the Intensity and primary construct were not calculated and no principal component analysis was performed.

Miss SW P1 Silver Primary School

20 June 1994

- A1 Sustained silent reading, enjoy books and finding out and reading for pleasure.
Can't sustain silent reading, uninterested in reading but enjoys looking at pictures e.g. Wally books.
- B2 Reading below chronological age but willing to read, making progress. Confidence increasing with new texts.
Only just beginning to recognise words - small sight vocabulary but does not attack new texts with enthusiasm and confidence.
- C3 Making progress using cues to help: pictures, sounds, context.
Reads for information and pleasure, fluent reader. Enjoys books.
- D4 Concentration not so sustained. Easily frustrated.
Very hardworking, good concentration leading to progress. Motivation excellent.
- E5 Easily distracted in all situations. Reading not activity they would choose but will glance through books.
Can concentrate but doesn't always.
- F6 Good intrinsic motivation, want to succeed. See it as important to be able to read. Not particularly fluent readers. Positive attitude.
Good extrinsic motivation, i.e. home. He's disinterested. Cross lateral leads to frustration in writing and may contribute to attitude to reading. Only child but spends lot of time with two older very able cousins, who read fluently early. Reading poor. Good drawer. Interested in g. k.
- G7 Need to be persuaded to look at books in ERIC.
Fluent reader. 'Bookworm' enjoys all books. Chooses to read when it at playtimes.
- H8 Still need support with new texts but well motivated children. Need support with word building.
Reads fluently. Only occasionally needs support with complex words. Explanations needed for complex vocabulary.
- I9 Negative attitude, lack of concentration, easily frustrated and give up.
Positive attitude, good motivation, fluent reader.
- J10 SEN. Need much support but have encouragement from home, limited progress.
Fluent bookworm.

The most important thing is fluency. If they need support they are heard by adults, children in the class and able readers from Year 5. If they are independent, 1) heard occasionally, 2) some don't really enjoy reading aloud, 3) hear readers in Year 3 who need support, and in their own class.

Miss SP P2 Silver Primary School

20 June 1994

- A1 Both non-readers, enjoy sharing books, looking at pictures - will talk about pictures - beginning to use sounds - some simple words, needs a lot of support.
S. is already reading simple stories. Enjoys sharing books.
- B2 Both made good progress with their reading. Beginning to read.
R. is a reader, should be a more fluent reader - loves books - very interested - but not reaching his full potential.
- C3 Both had lots of extra help. Both are beginning to read.
S. is a more able reader.
- D4 Both are readers, both very interested in all sorts of books - wide selection of texts, both particularly enjoy factual books.
J. is a non-reader - beginning to use sounds and beginning to read simple words he needs support. He speaks another language at home. Absent for periodic spells. Tries very hard.
- E5 Both enjoy books, will share books together - much more confident.
Much poorer reader. Less confident about tackling new text.
- F6 Non-readers who have both had a lot of support - reading some simple words - use some sounds. Some sight vocabulary.
Very fluent and able reader - very confident. Loves all sorts of books. Doesn't enjoy reading aloud, very shy.
- G7 Will read next texts - tackle new texts independently - take books home. Enjoy reading together in groups.
D. is more able reader - enjoys all books, enjoys reading, enjoys chaptered longer reads.
- H8 Have more family support with reading: seem to enjoy books - get lots of encouragement.
Reluctant to take home books. Finds reading hard. Little concentration.
- I9 Both able readers, will tackle text independently.
A poorer reader, needs more support.
- J10 Really concentrate and enjoy a longer more chaptered read. More mature - given extra books/independently enjoy quiet, silent read.
A poorer reader - more interested in sharing books. Less likely to read at home.

As a class/group they enjoy sharing books either reading in pairs, groups or independently. There is a huge range of ability in the class but whether they enjoy reading/want to read is the most important thing.

Mrs SS P3 Primary School

20 June 1994

- A1 Two boys reluctant to read for pleasure - need to be pressurised to read.
Girl enjoys reading for pleasure.
- B2 Two girls both very competent capable readers.
One boy - knows all letter sounds but is reluctant to put them into practice.
- C3 Two children whose choice in reading material is usually fiction.
One child often chooses a non-fiction book.
- D4 Two children - competent - a lot of reading.
One child reads competently - a good sized book but can take much longer to read.
- E5 Two children who are proficient readers but need to be encouraged to sustain reading.
One boy - knows all letter sounds but is reluctant to put them into practice.
- F6 Two girls will read a book following story and sustaining effort to end.
One child prefers to dip into books - chooses non-fiction.
- G7 Two children much higher standard.
One child not as good.
- H8 Two children need encouragement to sustain reading.
Independent proficient reader - reads for pleasure.
- I9 Two children are very good readers but not as good as other child.
One child very good reader.
- J10 Two children from home backgrounds that encourage reading.
Reading not valued in home.

Most important thing at this time is self-motivation. On the whole children can read fluently
- they need to read for themselves, for enjoyment, for information, to improve vocabulary.

Mr RM P4 Red Primary School

15 June 1994

- A1 Difficult to settle to a task - chattery. Short concentration span. Easily distracted. Able children, good orally - not keen to write. Good ideas.
Easily settles, quiet, stick at a task. Good powers of concentration - presentation good.

- B2 Poor readers. Poor comprehension, poor attention span, poor phonic skills, poor memory, easily distracted. Poor sense of achievement - not much home support.
Able child. Good concentration. Good reader, good ability. Better sense of worth and achievement. Home support (parental involvement).

- C3 Very, very funny. Lack of concentration - too stimulating. Good home help, good comprehension, phonics and reasoning.
[As construct 2]

- D4 Quiet, good concentration, home support, enjoy reading wide range (fiction, non-fiction). Keen library members. Good home support.
[Reads] Non-fiction, e.g. machines, vehicles, [father is a] (lorry driver). Typical boyish boy. noisy, disruptive, long time to settle.

- E5 Reading age about a year behind for C. A. One Year 3, Year 4. [Vertically grouped class. Despite being in different years the similarity is that both have a R. A. a year below their C. A.]
One child, Year 3, year ahead C. A. Schonell Word Recognition.

- F6 Quiet, enjoy reading, lots of help, good comprehension, good concentration. All three good readers.
Effervescent, exciting personality. Very chattery.

- G7 Good readers, good all round. Good support.
Chatterbox, powers of concentration poor.

- H8 Poor to settle to task, bright, poor concentration, good support.
Quiet, good concentration.

- I9 Poor readers, poor retention, poor comprehension, very limited concentration.
Good concentration, excellent comprehension.

- J10 Year 4 good average.
Short concentration, poor reader.

The biggest thing is the home support, do their parents listen to them read? Children cannot fulfil their potential without the parental support, applies to poor readers and very bright children. Parental involvement can help children achieve their potential, (even if it is very low). But it can also turn children into nervous wrecks where parents push them too much (beyond their capabilities) in this type of catchment area you do see that as well. The only other difference is in their powers of concentration.

Mr RT P5 Red Primary School

15 June 1994

- A1 Independent readers in that they choose their own material.
Needs encouragement to attempt any form of reading.
- B2 Again independent readers, and share unique characteristics in that they enjoy literature of a similar genre. They have both read and enjoyed "The Hobbit" this year.
Very much an emergent reader who struggles with most material. He is most comfortable on a graded scheme.
- C3 Read independently and happily engage in non-fiction reading. They often research material together.
Reads well but is happy to select 'safe' material which she has savoured already.
- D4 Can both use inference and deduction in their reading and both can read aloud with good expression.
Reads with little expression and could probably not use much inference or deduction.
- E5 Regularly read at home where as:
Rarely reads at home and will often forget her reading book.
- F6 Read regularly at home and demonstrate similar skills in reading aloud; they are fluent expressive readers.**
Reads with frequent pauses and although a regular reader at home, she struggles to sound coherent.
- G7 Are less reluctant to decode words by sounding out but can do it if encouraged.
Will decode words by sounding out, without encouragement.
- H8 They are competent, fluent, expressive readers.
Reads well but does not display the fluency and expression and confidence of 9 and 15.
- I9 Are less able than 4; [contrast] their interest in reading is not as enthusiastic as 4.
4 would provide me quite willingly with a verbal book review and displays more willingness to discuss the point.
- J10 Are more likely to need to decode harder words than 13.
13 would attempt and succeed to pronounce more difficult polysyllabic words.

I aim for children to develop their skills of comprehension and understanding first and foremost at this level.

Mrs GF P6 Green Primary School

6 June 1994

- A1 Distraction. Struggle with a sustained read even though they are readers.
Maintain interest. Absorbed in a text.

- B2 Mature readers. Advanced reading age. Select appropriate novel and sustain interest. Wide variety of text.
Non-reader. Although is developing strategies for reading and is becoming quietly confident with reading. Can cope with short novels, e.g. R. Dahl.

- C3 Similar in that they use a variety of strategies for word attack.
Lack of motivation.

- D4 Reading is still a problem. Both receive literacy support, one with SEN statement.
R. A. 14.9!!

- E5 Derive more enjoyment from reading generally.
Typical Year 5 reader. Making steady progress but nothing out of the ordinary.

- F6 Both fluent readers but share a hesitancy in fluency when reading aloud.
Lack of motivation and more extreme dislike of reading aloud.

- G7 Understanding of text, infer/deduce.
Question his comprehension, level not as sharp as other two.

- H8 Less fluent readers, both receive support.**
Fluent reader.

- I9 Can employ reading strategies across the curriculum. Enables them to participate in all reading aspects of curriculum.
Needs support when needing to read texts which are subject specific.

- J10 Typical readers.
Very capable reader who needs rich diet of literature. Special needs at the top end of the scale, needs to interact with teacher to keep reviewing books read

- K11 Typical readers.
SEN statement.

- L12 Typical independent reader.
Needs support/receives help.

- M13 No problems.
Slow reactions, plodding reader.

- N14 High level of motivation and interest.
Appears less interested in reading, more of a mathematician!

- O15 Fluent.
Receives support.

The biggest difference between these children is those who can and can't read. At this age most of them have cracked it and those who haven't realise this.

Mrs VH P7 Violet Primary School

7 June 1994

- A1** **Have not started the reading scheme (Oxford Reading Tree).**
Has started O. R. T. scheme.

- B2** **Unable to write own name by themselves.**
Can write own name unaided.

- C3** **Enjoy looking at books.**
Needs encouragement to look at books.

- D4** **Have not started O. R. T.**
Has started O. R. T. scheme.

- E5** **Two are highly motivated towards academic work.**
Prefers to play.

- F6** **Correct letter formation.**
Does not always form letters correctly.

- G7** **ESL.**
English is first language.

- H8** **Two boys.**
One girl.

- I9** **Slow to understand reading games and match words.**
Quick to read words and understand the game.

- J10** **Have started O. R. T.**
Has not started O. R. T.

Most important distinction is attitude to books and the written word. This is a result of home background.

Miss VP P8 Violet Primary School

7 June 1994

- A1 The similarity between the two children is an ability to use phonics as a word-attack.
The child rarely uses phonics as strategy and is unsure of some sounds.

- B2 These children have appropriate comprehension of what they read.
Can read, but does not always understand vocabulary.

- C3 Are not fully fluent reading aloud with regards expression and hesitations.
Fairly fluent reader, reasonable expression.

- D4 Due to English being their second language these children have some problems with word-endings, verbs, plurals.
Not a problem of this kind, but has a slight speech impediment.

- E5 Have difficulties sustaining silent reading.
Can read silently for longer periods of time.

- F6 Enthusiastic, self-motivated readers.
Not so keen.

- G7 Mature, very competent readers.
Good reader.

- H8 In choosing from school reading scheme they choose appropriately.
In choosing from scheme books he chooses easier books than he can read.

- I9 They read fairly fluently and use variety of strategies.
Struggles with unfamiliar words, lacks strategies.

- J10 Adequate comprehension.**
Exceptional understanding of vocabulary and inference.

The most important difference is to have a good range of strategies for dealing with unfamiliar words. The majority do have access to a variety of strategies.

Mrs IB P9 Indigo Primary School

14 June 1994

- A1 Using strategies previously taught - prediction, decoding, pictures.
*Fluent reader - confident with wide range of books - fiction and non-fiction.
 Thoroughly enjoys reading.*
- B2 Same At. level - good. [They read] Fiction and non-fiction. Year 4 keen readers.
 No problems.
Plus longer more advanced books - very able. Year 5.
- C3 Attitude - good progress - interested - good general knowledge - wide range of books read.
Not fluent - finds difficulty - tries hard - enjoys shared reading - not at ease with strategies and techniques.
- D4 Enjoys books. Independent. [reader]
Enjoys books with support, one-to-one. Stated - very little support from home - needs to read at home with parents for enjoyment.
- E5 Have experienced problems in the past - needed extra help. Pleasing progress.
Fluent reader - no problems.
- F6 Enjoy books - no problems.
Received extra help with reading and spelling from Year 2 emphasis in Year 5 on spelling good progress with reading - able pupil.
- G7 Good progress with reading - no real problems - enjoy books.
Experienced problems reading and writing - extra help received beginning to use strategies.
- H8 Not really interested in reading in the past.
Experiences great problems. Interested in books, with support.
- I9 Have received extra help in Year 5 (funded jointly by High Schools. Guthlaxton and Primary Schools.) with reading and writing - not in other subjects. Both average children.
No problems.
- J10 Problems experienced with spelling, more than with reading. Extra help given in Year 5 and also prior to this date with reading.
No problems.

Enjoy reading shared with friends, adults etc. Experience progress. Develop interest in all types of books. Those with problems need support (school/home) and great deal of praise and positive learning experiences.

The key is keeping children's' enthusiasm and confidence. Important to achieve this is the relationship with the teacher, and choosing books at an appropriate level.

Mrs IG P10 Indigo Primary School

14 June 1994

- A1 Attending full-time. Friends, ability (high), family background (literary), knows how books work. Knows initial sounds and using them.
Part-time. Going to be SEN. Poor family background.
- B2 Similar to above. [construct A1]
Got there faster, almost fluent.
- C3 Use initial sounds.
Uses some initial sounds.
- D4 All three high flyers. Blue collar background.
Part-time for one term. Has pretensions to professionalism.
- E5 Similar home backgrounds - supportive but non-literary parents.
Parental background in education.
- F6 Part-time first term.
Full-time.
- G7 Quiet during discussions. Similar because of home backgrounds.**
Isn't as far along the path to fluency.
- H8 Well on the way to becoming fluent readers.
Isn't as far along the path to fluency.
- I9 Similar home backgrounds - very little in literacy support.**
More or less fluent.
- J10 Well informed, switched on to books. Reading favourite activity.
Not so much so with X.

Most important - attitude to reading. Aim is to turn them into readers, not just teach them to read.

Mrs IT P11 Indigo Primary School

14 June 1994

- A1** Good attitude to work most of the time, but inquisitive about what's happening round them.
Bad attitude - non-achieving, no backing from home - not interested in what others are doing. No inquiring mind.
- B2** Lots of vigour - usually directed towards work. Needs channelling.
Lacking in energy and drive. Reading OK - but other work not up to same standard.
- C3** Both with problems - but prepared to work hard so progressing.
Problems but no effort - lack of enthusiasm.
- D4** Both [have] problems hard working attitude - D. has achieved, E. should.
Not the problem with reading but lethargic.
- E5** Good reading ability, read avidly.
Low achiever, struggles. No consistent effort. Disruptive.
- F6** Both poor ability, but hard workers. Achieving their potential.
Medium ability. OK but not so much effort.
- G7** Both good readers - both some health problems, both work hard - but physical limit on the work they can put in.
Very lazy, needs constant watching, encouraging.
- H8** Both poor readers but both try hard.
Achieves with much less effort.
- I9** Need a lot of teacher input to make them achieve.
Works hard of her own accord.
- J10** Both read well and easily and avidly.
Now becoming a good reader but it needed much more effort on her part.

Attitude, and home attitude, to work. Achieving is much harder for the ones with no support and backing from home, the ones who have to be fired with enthusiasm by the teacher. This works while in class but fades again quickly.

Mr WP P12 White Junior School

24 June 1994

- A1 Read with some independence.
Incapable of even remembering the text of 'simple' book and no voice print match.

- B2 Know all initial letter sounds and some blends.**
Has difficulty matching symbol and letter sounds.

- C3 Take home books more readily.
Reluctant to take home books perhaps due to a non-reading mother

- D4 Haven't achieved the same level of fluency in reading as the other child.
A more fluent reader than the other two children.

- E5 Both progressed well in reading during year.
Statement of SEN.

- F6 Had extra reading support. Which has been beneficial in that they have progressed but haven't yet reached that 'take-off' point into independent reading.
Hasn't had reading support.

- G7 Wouldn't really classify them as enthusiastic readers. Only take books home reluctantly.
Enthusiastic reader. Takes books home almost every night.

- H8 Takes books home only infrequently.
Takes books home regularly.

- I9 Approximately same ability level in terms of reading.**
Higher reading ability.

- J10 Made good progress with reading support.
Made good progress without reading support.

The most significant factor in reading achievement is parental interest. Those children who have made significant progress have tended to be those with interested literate parents.

Mrs WB P13 White Junior School

24 June 1994

- A1 Very keen to read to a third person (aloud).
Reluctant to read aloud. Not very confident.

- B2 Very keen readers. Capable of tackling longer books.
Very reluctant to read anything.

- C3 Both very capable readers.
Struggles to read. Verbally very good but reading doesn't match.

- D4 Both read at home, enjoy reading.
Struggling with reading. Enjoys to read to you. Doesn't take book home.

- E5 Intermediate readers. Has the basic strategies but needs a lot more practice for pleasure.
More of a fluent reader.

- F6 Similar interests in books (reptiles, motorbikes).
Prefers "story" books and longer novels.

- G7 Cross age tutoring. [all three very capable girls who are keen to help with tutoring younger pupils reading]
Would like to go tutoring but doesn't at the moment.

- H8 Extra reading support.
Needs extra help with writing but doesn't have support at the moment.

- I9 [Need to] Encourage to read whole book at one sitting. Reading for understanding and interest.
Independent reader. Made good progress this year.

- J10 Enthusiastic and competent.
Has the potential but really lazy. Talks non-stop.

The most important thing is enthusiasm for reading.

Mrs PJ P14 Pink Primary School

8 June 1994

- A1 Two are enthusiastic about doing pre-reading activities.
The other does not enjoy activities.
- B2 **Two are fluent, confident English speakers and are therefore more confident about language activities.**
One is very wary of language activities as he has little to no English.
- C3 **Two prefer boisterous, action games to fine manipulative activities.**
One enjoys fine manipulative activities.
- D4 Two have good powers of concentration.
One finds it difficult to concentrate.
- E5 Two enjoy language activities.
One does not enjoy language activities.
- F6 Two have a stimulating home environment with parents who are eager for their children to do as well as and have good English.
One has parents who are concerned about him but are a lot more relaxed about his academic achievements, also his English is quite poor.
- G7 Two have a need for adult attention and therefore spend a large part of their school day doing language activities.
One is happy playing with other children and therefore only spends a small part of the day doing language activities.
- H8 Although all three have English as a second language, two are confident English speakers and are chatty with adults and children alike. *They all have similar family structures, i.e. older siblings, and have all been to school for the same amount of time. One is quite reticent particularly with adults, only speaks when spoken to.*
- I9 Two are from home environments where they have received adequate language and pre-reading /writing opportunities are fluent English speakers and have enjoyed pre-reading/writing activities from the start of their school careers.
One has little to no English and probably no pre-reading/writing opportunities or stimulation (i.e. no paper, books, pencils etc.) and has only in the last weeks participated in language activities.
- J10 Two have good English and enjoy language activities.
One has very poor English and is wary of language activities.

I would say the most important factor affecting their success at school - most dramatically at the beginning, is the quality of the home environment in terms of the stimulation, encouragement, opportunity (materials available such as books, paper, pencils, crayons, puzzles etc. etc.) and example provided by the parents, siblings and relatives.

Miss PT P15 Pink Primary School

8 June 1994

- A1 Similar in reading age.
The other is much lower.
- B2 Plateaued in Year 3 - poor comprehension - second language - struggled to begin Year 4 but in the last (summer) term have begun to progress again.
Steady progress throughout the school.
- C3 **Slow steady progress throughout the year.**
Fast steady progress.
- D4 Both prepared to work at their reading and related tasks throughout the year.
Consistent.
Goes in fits and starts.
- E5 Both have had a lot of problems with reading - well below their C. A. (2 to 4 years). Both have had extra support from an outside specialist (ex-Literacy Support) teacher.
No problems, made steady progress R. A. above C. A.
- F6 **Both are E. 2 L. children and have had some comprehension difficulties because of this and a lack of knowledge of some vocabulary due to their culture - not being English.**
No comprehension difficulties, a wide general knowledge and a Mum who has been doing a college course on engineering so the work ethic is there.
- G7 Same as E5
Average child with plateaux.
- H8 Both have tried hard and made progress during the year - Which reflects their ability (appropriate progress).
Almost no progress.
- I9 Both had great interest shown by Mums in the progress they've been making - checking at least once a month to see if they're doing well - and how they can help.
Not seen parents much - Mum once - when seeing the E. P. - Dad a few times when collecting him.
- J10 To some extent both need constant encouragement to keep going and progress - especially with work away from school/teacher. Lazy attitude not a lack of ability.

The most important difference is J10 - self motivation and how this is gained - self, school, teacher, peers, home.

PGCE 1

29 June 1994

- A1** They are confident readers.
Skips words out, probably difficult words for him to read.
- B2** They will volunteer to read out loud.
She was more reluctant to read out loud.
- C3** As B2 [They will volunteer to read out loud.]
She would not volunteer to read as she could not actually cope with the task, i.e. the words were too difficult for her.
- D4** They would never volunteer to read out loud, I would actually have to ask them to read from the board.
He would be very enthusiastic and would want to read out loud.
- E5** Same as B2 and C3 [They will volunteer to read out loud.]
She wouldn't read out loud, it wasn't because she did not have the ability, I think it was to do with her own personal confidence.
- F6** Both had difficulty with reading but for different reasons.
Above her reading age and very confident.
- G7** As F6. [Both had difficulty with reading but for different reasons.]
Competent reader, very quiet shy child.
- H8** As F6. [Both had difficulty with reading but for different reasons.] plus one is a slower learner, will catch up.
Very competent reader, confident personality.
- I9** Would ask for help from other children with reading difficult words.
She was more teacher dependent.
- J10** They are easy to motivate and keep on task.
His concentration is very low it is difficult to keep him on task.

The most important difference with their reading was the range of experience of language and the effect this had on the rate at which their reading develops.

PGCE 2

29 June 1994

- A1 Have similar reading age abilities. All three similar chronological age.
Has a much higher reading age compared to other two.
- B2 Two have similar reading ages. Two much prefer reading football comics to books.**
One has much higher reading age. One has more interest in reading books compared to other two.
- C3 Two are well motivated towards reading books in class.
One is much less motivated at reading books in class. Prefers looking at football posters.
- D4 Two can read well for their age.
One cannot read. He still doesn't recognise some letters of alphabet.
- E5 Have similar reading age. Two not so bothered about reading. One has lower reading age.
One is very motivated towards wanting to learn to read.
- F6 Two are able readers. Two not motivated towards reading.
One less able reader. One is more motivated towards reading than the other two.
- G7 Two have similar reading ability.
One has lower reading age compared to other two.
- H8 Two very much more able than one at reading.
One is much less able at reading than the other two.
- I9 Two are much less willing to carry out concentrated silent reading due to very frequent off task behaviour.
One is more willing to read quietly and concentrate.
- J10 Two are much more able at reading.
One can hardly read. Still has problems with alphabet recognition.

The most important difference is lack of motivation in some children towards reading. Other children however are highly motivated towards reading. Overall the more highly motivated children are the better readers, including intonation when reading.

PGCE 3

29 June 1994

- A1 Competent readers.
Exceptional reading age ~ 13-14 and expression.

- B2 Competent. Finger readers lacking expression with books that test them. Re-telling average.
Very thoughtful reader, comprehension good.

- C3 Very keen readers. Modest ability.
Lacking motivation. Not overly keen on books as a media.

- D4 Vocal seeks help. From self [teacher] and other children.
Shy reader/quiet. Not vocal, reluctant to seek help.

- E5 All three very keen, enjoy books. Need to be pushed.
SEN.

- F6 Excellent all round (expression out loud, comprehension, enjoyment).
Lower enthusiasm.

- G7 [Chooses suitable books for silent reading-] Suitable silent reading, unsuitable reading aloud.
Reading correctly appropriate books.

- H8 Ability slightly below par.
At appropriate level.

- I9 Ability [similar]. 7 average in class, 1 excellent.
Purely lower than 'average'. [SEN]

- J10 Comprehension [better].
Poor comprehension.

Most important is enjoyment of books especially at Year 5 when it can catalyse continuing desire to read. So very important to give children access to a wide variety of texts and meet reading in different contexts.

PGCE 4

29 June 1994

- A1 Enjoy sharing books.
Very dominant about sharing books.
- B2 Vague interest in books.
Eager to read and learn initial sounds of words through Letterland scheme (Naughty Nick etc.)
- C3 Very keen to show knowledge of letters and ownership of books. Very competitive.
Little interest in reading.
- D4 Lack of interest in the reason behind reading, couldn't remember stories.**
Could retell a story through pictures, very keen.
- E5 Eager to show learning of letters and reading.
Not motivated.
- F6 Motivated to read one-to-one with attention.
Uninterested.
- G7 Interested and could read name.**
Not sure.
- H8 Would regularly take a book home.
Rarely took a book home.
- I9 Had the vocabulary to read.
Very poor English and Gujarati vocabulary.
- J10 Would always take a book when asked.
Would not necessarily take a book, would rather talk.

Vocabulary being the most important factor before reading can begin.

Appendix F

DeFord (1985) TORP
Theoretical Orientation to Reading Profile

The DeFord TORP

Name:

School:

Please read the following statements and circle the response that best indicates your own feelings about reading and reading instruction.

1	2	3	4	5
Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

(Select *one* best answer that most closely reflects the strength of your agreement or disagreement)

1. A child needs to be able to verbalise the rules of phonics in order to assure proficiency in processing new words.	1	2	3	4	5
	<hr/>				
	SA				SD

2. An increase in reading errors is usually related to a decrease in comprehension.	1	2	3	4	5
	<hr/>				
	SA				SD

3. Dividing words into syllables according to rules is a helpful instructional practice for reading new words.	1	2	3	4	5
	<hr/>				
	SA				SD

4. Fluency and expression are necessary components of reading that indicate good comprehension.	1	2	3	4	5
	<hr/>				
	SA				SD

5. Materials for early reading should be written in natural language without concern for short, simple words and sentences.	1	2	3	4	5
	<hr/>				
	SA				SD

6. When children do not know a word, they should be instructed to sound out its parts.	1	2	3	4	5
	<hr/>				
	SA				SD

7. It is good practice to allow children to edit what is written into their own dialect when learning to read.	1	2	3	4	5
	<hr/>				
	SA				SD

8. The use of a glossary or dictionary is necessary in determining the meaning and pronunciation of new words.

1	2	3	4	5
SA				SD

9. Reversals (eg. saying “saw” for “was”) are significant problems in the teaching of reading.

1	2	3	4	5
SA				SD

10. It is good practice to correct a child as soon as an oral reading mistake is made.

1	2	3	4	5
SA				SD

11. It is important for a word to be repeated a number of times after it has been introduced to ensure that it will become part of sight vocabulary.

1	2	3	4	5
SA				SD

12. Paying close attention to punctuation marks is necessary to understand story content.

1	2	3	4	5
SA				SD

13. It is a sign of an ineffective reader when words and phrases are repeated.

1	2	3	4	5
SA				SD

14. Being able to label words according to grammatical function (nouns, etc.) is useful in proficient reading.

1	2	3	4	5
SA				SD

15. When coming to a word that is unknown, the reader should be encouraged to guess upon meaning and go on.

1	2	3	4	5
SA				SD

16. Young readers need to be introduced to the root form of words (run, long) before they are asked to read inflected forms (running, longest).

1	2	3	4	5
SA				SD

17. It is not necessary for a child to know the letters of the alphabet in order to learn to read.

1	2	3	4	5
SA				SD

18. Flash card drills with sightwords is an unnecessary form of practice in reading instruction.

1	2	3	4	5
SA				SD

19. Ability to use accent patterns in multisyllable words (pho' to graph, pho to' graphy and pho to' graphic) should be developed as part of reading instruction.	1	2	3	4	5
	SA				SD
20. Controlling text through consistent spelling patterns (The fat cat ran back. The fat cat sat on a hat) is a means by which children can best learn to read.	1	2	3	4	5
	SA				SD
21. Formal instruction in reading is necessary to ensure the adequate development of all the skills used in reading.	1	2	3	4	5
	SA				SD
22. Phonic analysis is the most important form of analysis used when meeting new words.	1	2	3	4	5
	SA				SD
23. Children's initial encounters with print should focus on meaning, not upon exact graphic representation.	1	2	3	4	5
	SA				SD
24. Word shapes (word configuration) should be taught in reading to aid in word recognition.	1	2	3	4	5
	SA				SD
25. It is important to teach skills in relation to other skills.	1	2	3	4	5
	SA				SD
26. If a child says "house" for the written word "home", the response should be left uncorrected.	1	2	3	4	5
	SA				SD
27. It is not necessary to introduce new words before they appear in the reading text.	1	2	3	4	5
	SA				SD
28. Some problems in reading are caused by readers dropping the inflectional endings from words (eg. jumps, jumped).	1	2	3	4	5
	SA				SD

Please could you provide the following details. These are only for comparison with the responses above and will remain confidential.

1. What age group/year do you teach?

Y1 Y2 Y3 Y4 Y5 Y6

2. Do you have experience of teaching any other age group/year?

Reception Y1 Y2 Y3 Y4 Y5 Y6 Secondary

3. Which teaching qualifications do you have?

Certificate of Education BEd BA/BSc plus PGCE MEd other

4. How many years teaching experience do you have?

5. Have you completed any courses or attended any INSET/continuing professional development concerned with reading recently?

Please specify:

Thank you for completing this questionnaire.

Appendix G

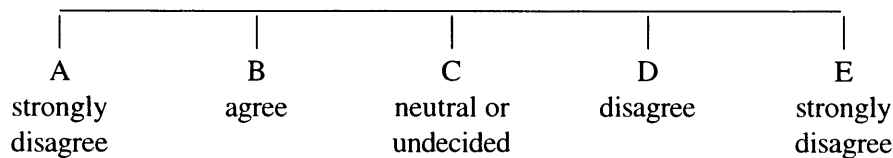
Duffy & Metheny (1979)

Propositions about Reading Inventory

PROPOSITIONS ABOUT READING

Duffy & Methany (1979)

Directions: For each of the following 45 items, please indicate your level of agreement (or disagreement) by circling one of the five letters. In all cases, A means strongly agree, B agree, C neutral or undecided, D disagree and E strongly disagree. IMPORTANT: if you cannot decide upon a response to a particular item after 30 seconds, you should circle C for undecided and go on to the next item.



1. I believe that pupil success in reading should be determined primarily by noting progress from easier basal readers to harder basal readers.

A B C D E

2. I believe that teachers should directly teach the basic skills of reading to those pupils who need them.

A B C D E

3. I believe that the best reading materials are those which help children solve problems of importance to them.

A B C D E

4. I believe that an important indicator of reading growth is how often a pupil voluntarily uses reading in his daily life.

A B C D E

5. I believe that contextual clues are the most important word recognition aids and should receive more instructional emphasis than sight words or phonics.

A B C D E

6. I believe that basal textbook materials are an important part of good instructional programs in reading.

A B C D E

7. I believe that primary grade reading should emphasise decoding skills more than comprehension.

A B C D E

8. I believe that reading success should be measured primarily by noting how well the pupil uses his reading ability for other classroom activities.

A B C D E

9. I believe that the teacher's role is to help children learn to love reading by allowing frequent free reading and by conducting individual book conferences.

A B C D E

10. I believe that reading instruction should focus heavily on comprehension, even at the beginning stages of reading.

A B C D E

11. I believe that an important criteria for grouping pupils is the level of basal textbook each is able to read.

A B C D E

12. I believe that all children should be systematically taught to use phonics skills.

A B C D E

13. I believe that the goal of developing comprehension is best achieved by giving pupils realistic reading problems which they see as meaningful in their lives.

A B C D E

14. I believe that reading instruction should emphasise the higher-level comprehension processes typically found in good children's literature.

A B C D E

15. I believe that a very important measure of reading success is the degree to which pupils use reading as a communication process.

A B C D E

16. I believe that considerable instructional time should be devoted to conducting guided reading lessons using selections such as those found in basal textbooks.

A B C D E

17. I believe that a carefully structured skills guide should be used when teaching reading to ensure that each separate skill is mastered.

A B C D E

18. I believe that reading groups should be formed as the need for them arises and should be disbanded when the need has been met.

A B C D E

19. I believe that we should spend less time teaching pupils how to read and more time in getting him interested in reading.

A B C D E

20. I believe that reading materials should help children learn to read in a natural manner similar to the way they learned to speak.

A B C D E

21. Children who have similar skill deficiencies should be grouped together for instruction.

A B C D E

22. I believe that reading groups should be based on the pupils' interests.

A B C D E

23. I believe that teachers should spend more instructional reading time on helping children use language as a communication process.

A B C D E

24. I believe that word recognition should emphasise the new vocabulary words associated with each basal text story.

A B C D E

25. I believe that a significant part of a teacher's time should be spent in teaching basic reading skills.

A B C D E

26. I believe that word recognition instruction should not become more important than involving pupils in real-life reading tasks.

A B C D E

27. I believe that comprehension should be taught by asking questions about the basal text story being read.

A B C D E

28. I believe that one effective way to determine pupil reading success is to note how many skills he has learned.

A B C D E

29. I believe that a significant amount of the instructional time in reading should be spent on purposeful, real-life projects and activities which call for the use of reading.

A B C D E

30. I believe that word recognition instruction is not as important in reading as providing children with stimulating, interesting materials to read.

A B C D E

31. I believe that if grouping is used, pupil assignment to groups should reflect more emphasis on meaning cues in reading.

A B C D E

32. I believe that the teacher's role in reading is to assign pupils to appropriate basal materials and direct them as they complete the material.

A B C D E

33. I believe that fewer children would have difficulty learning to read if we stopped teaching reading during self-contained reading periods, and, instead, taught it as a part of all subjects.

A B C D E

34. I believe that children should be allowed to choose stories and books they want to read during the regular reading period.

A B C D E

35. I believe that the teacher's role is to emphasise the communication aspects of reading more than the skills.

A B C D E

36. I believe that a basal text should be used to teach reading.

A B C D E

37. I believe that reading is a difficult process which must usually be taught in a step-by-step sequence if we are to develop good readers.

A B C D E

38. I believe that the teacher's role is to involve pupils in realistic reading tasks which illustrate the functional utility of reading.

A

B

C

D

E

39. I believe that reading is not difficult for most children to learn if they are provided with stimulating and lively materials to read.

A

B

C

D

E

40. I believe that reading instruction should focus more on the use of meaning cues and less on skill instruction.

A

B

C

D

E

41. I believe that I should spend equal amounts of time with the low, middle and high basal text groups.

A

B

C

D

E

42. I believe that reading is composed of a series of hierarchical skills which must be taught sequentially and then used in combination if one is to read successfully.

A

B

C

D

E

43. I believe that reading instruction should be taught so that pupils can use reading successfully in all curricular areas.

A

B

C

D

E

44. I believe that reading would not be such a problem today if we made greater efforts to interest children in the reading of good children's literature.

A

B

C

D

E

45. I believe that too much emphasis is being placed on skills (especially decoding skills) in reading programs today.

A

B

C

D

E

SCALE	ITEMS								
Basal text	1	6	11	16	24	27	32	36	41
Linear skills	2	7	12	17	21	25	28	37	42
Interest	4	9	14	19	22	30	34	39	44
Natural language	5	10	15	20	23	31	35	40	45
Integrated whole	3	8	13	18	26	29	33	38	43

Appendix H

Main Study Sample Transcripts

Mrs RP T7 Red Primary School

1st elicitation interview

10 November 1994

Sort A1 5 7 10

[missing]

I: 7 and 5 are very quiet with reading, where as in contrast-

T: He'll [10] be about average, average pitch with reading, you know, when he's actually reading to me you can hear him quite clearly, but these [5 and 7] you quite often have to struggle, when the rest of the class is there. Sometimes-

I: Makes it difficult-

T: Yes it does. You have to say to them, "can you speak up?".

I: OK, well that's great, that's exactly the kind of thing. So if I write down here....

ACCEPTED

RATED

Sort B2 2 4 9

I: Any similarities there? Are they all completely different?

T: Mm.

I: Well, it can be just one tiny aspect of something, or maybe for different reasons, anything at all. Just vaguely to do with reading!

T: Well, the only thing that would tie these two [??] would be that they've not been in this school all their time at school, if you see what I mean. He [?] came from another school.

I: And do you think that's relevant to their reading?

T: Well yes, because they weren't actually using the same scheme as us, they were using the scheme where they just picked out different books, at different levels.

I: It wasn't so structured?

T: It wasn't structured no. No, so that- his [?] reading is actually beginning to come along nicely now. His mother has said she much prefers the way- she's very pleased with the way his reading's coming on, she wrote it on his card [the card that goes home with the reading book for parent comments] the other day.

I: Oh that's very gratifying isn't it?

T: Yes. She much prefers the method that we use here than in the other school because they tend to list- lists from the other school that he'd read all these different books, but there were one or two odd ones from the scheme that we use, but I mean he's been here- he came in the summer term, and really one of the books they said he's read, he's only really read with us now just this week. We started him back lower down, we didn't feel he was ready yet.

I: And that's on 1, 2, 3 and Away here is it?

T: Yes, yes.

I: Where as this [2] child?

T: Oh he's been here all the time.

I: So he's used to a more structured-

T: Yes.

I: So what do you want to make the construct?

T: And then of course he'd never been to school before. So he's coming in with children that've already had at least, um one full term in school.

I: So, what do you want to say about the similarity? That they're not used to the structured reading scheme?

T: Yes. Well those two weren't when they first came. I mean R. [9] is now, but when they initially came to school.

I: Where as, how do you want to say- has always?

T: Yes, yes, he's always- yes, he's always-

I: Does he [2] get on OK with it?

T: Oh yeah, yes, he reads really well.

I: So, um, getting on well with the-

T: Well in fact he's reading some books that the juniors are reading as well. So he's another one.

I: Getting on well with the structured reading scheme. Well that's quite an unusual one isn't it, just shows, all sorts of things come up, it just depends, its completely random.

RATED

Sort C3 1 7 12

I: Have you got any similarity there?

T: Those [1 and 7] both read very well.

I: Right. OK, where as?

T: She's [7] just about average for the Y1s, course these [1 and 12] are Y2s, so that sometimes makes a difference. Because these may well have struggling when they were- or about average then. But, well I had these last year as well-

I: So you know them very well?

T: So I know, yes. So I mean he was, well I wouldn't say struggling but he was quite fairly average, you know-

I: But he's come on very well then?

T: Yes. Yes.

I: So these two [1 and 12] are better than average?

T: Oh yes, yes I'd say so.

I: OK. So I'll say, 1 and 12 the similarity is that they are very good readers?

T: Yes.

I: And, "an average reader" is that what you said?

T: Yes. She [7] sometimes takes a little while to learn new words.

I: Shall I put "has difficulty learning new words"?

T: Well, um, not difficulty as such, but slower to learn new words.

I: Slower to learn- right.

T: Well, at the moment, but as I say, you know, with time you see-

I: OK. Well hopefully I'll be coming back to them, and maybe that will come out-

RATED

Sort D4 3 6 8 122

long pause

I: Any similarity there? [long pause] Are they all completely different, or are they all-

T: Well as far as reading yes. Yes, 'cos he's [6] sort of poor, she's [3] average, and she's [8] really good. There all Y1s, but that's about the only- She learns new words really quickly, she's just about average learning them and he's really poor.

I: Any other aspects of their reading?

T: They all talk quite a bit. Oh they all talk quite a bit yes, but-

I: Yeah, that's a similarity for all of them. [pause]

T: I mean I suppose, oh do you want just one? No.
 I: Yeah, two similar and one that's different.
 T: Well I suppose she's different in that, really she's just like a natural reader. Just seems to come to her, you know she doesn't find any difficulty with it at all. Or doesn't seem to.
 I: Is that the one you say, she doesn't seem to need to practise-
 T: Yes. Yes, 'cos she doesn't practise much at home, but-
 I: Natural reader, how do you want to say that?
 T: Yes, she doesn't seem to need- well she doesn't do that much at home, you know, but where as with another child that would really hold them back, she's actually reading, out of Y1, the highest book in the scheme.
 I: So she doesn't seem to need much home support.
 T: No. Where as others, when they don't get it, they're absolutely struggling.
 I: Normally its vital? Right. That's a very interesting one, yes, that will be- so these two [3 and 6] do they have that home support or?
 T: Well, they say he [6] does but I've got my doubts.
 I: Right.
 T: But then it could be because he's got poor memory retention, so it could be that they are doing it but that he doesn't remember, so I don't know. And then they'll tell you one thing, and then in another breath they'll say well I can't get him to do it, so, you know-
 I: So you're not sure, right.
 T: No. Oh yes, they help her [3?] oh yes, they help a lot.
 I: So the similarity is really that they just find it more of a struggle to learn, not- it hasn't come so naturally.
 T: Yes, that's right, yes.
 I: How do you want to say that?
 T: I suppose you could say, needs support at home- need home support.
 I: Needs home support, right.
 T: Like most children need-
 T: Yes, well especially at the beginning. But she's needed very little, so I suppose that's 7...
 RATED

Sort E5 1 2 7 185

I: So what's the similarity there?
 T: Well those two [1 and 2] are quite good readers, and she's [7] just average.
 I: Yeah, that's fine isn't it? That's quite a global measure, so it's about general reading?
 OK, so, the similarity is they're good readers?
 T: Yes.
 I: Just good readers?
 T: Yes.
 I: Right. And just "less good" really?
 T: Yes.
 RATED

Sort F6 3 4 12 210

T: Oh gosh, they're really-
 I: Ooh, what's come up?
 T: Really nothing in common at all!
 I: Right.

T: 'Cos he's [12] really very good, he's [4] very poor in everything, and- well most things, and she's [3] just about average.

I: Could you pick out one- quite small thing perhaps, in their approach, because kind of- reading ability is sort of a very global measure?

T: Those two I suppose are very keen readers-

I: Right, yes, that's a good point.

T: So those [3 and 12] are very keen readers and get plenty of help at home as well.

I: That's another, yeah another very good point. OK "very keen readers, a lot of support at home", where as?

T: Whether he [4] gets- well he doesn't seem to get a lot of support at home at the moment, 'cos quite often- I mean he really wants to go over his words every day 'cos he's right at the pre-readers, and it's something like once a week, which isn't enough.

I: And is he keen or not?

T: Well, I suppose that's part of the problem at home. Well he's not really into work, the work sort of situation, so-

I: Yes, you could say "gets a lot of home support, doesn't get home support"?

T: Yes, or very little home support.

I: Gets very little home support, with reading or?

T: Yes, with reading.

I: With reading.

T: "Cos you don't really ask them to do anything else.

I: That's the main thing-

T: Yes.

I: OK, so you've got- yes, you've got "a lot of home support" to "no home support" as your dimension.

T: Right, so um-

I: Actually do you want to leave the keenness because that's kind of separate?

T: Oh what, right, OK then.

I: Or-

T: Yes, yes that's fine, yes. Just leave it for home support.

I: Which is a very important thing- it can be anything at all that you think- perhaps "keenness" will come out on another one.

T: Right.

RATED... [some description about level of parental support]

Sort G7

3 5 10

259

T: I suppose confidence. These two [5 and 10] aren't quite so confident as she [3] is.

I: Is that in reading aloud or the in way they tackle it?

T: In reading aloud but also to a certain extent in the way that they tackle things, so perhaps we could have "very confident reader" or something?

I: Very confident reader, yep. And?

T: Lacking in confidence.

I: In reading aloud?

T: In um-

I: Is it confidence in their own ability?

T: Yes I think so, yes.

I: Lacking in confidence in-

T: In their own ability, yeah.

I: Right. Right.

RATED.....

T: She's fairly confident because, well, she reads well, so I think that-

T: And these- they're quite confident even though-

I: They shouldn't be?

T: Yes.

Sort H8 6 10 11 295

I: The next three I've got are 6, 10 and 11. [long pause]

T: Oh, these two [6 and 10] find it difficult to learn new words and he [11] doesn't. Well not so much, you know.

I: OK. Difficulty in learning new words.

T: Where as he doesn't.

I: Finds it easy?

T: Yes.

I: Why is that?

T: Um well, I suppose, well, I think, um, well these two are getting some ancillary support, so I think they've got a problem with memory retention, poor memory retention, so- although he is improving now-

I: With those support?

T: And also once they reach certain stages in the reading scheme they suddenly seem to move on, all of a sudden, so-

I: Breakthrough?

T: Yes, yes, so whether he's reached that stage now, that might be better. I could be that.

I: So coming back and looking at them that might have changed, hopefully, by the end of the year. OK. So difficulty learning new words is the dimension.

RATED

T: Right, so these are pretty good now at learning new words, so they'd be sort of 7, because if you tell them a word, that they come across, or they've worked out that word, when they come across it again they know it. Or if you've told them they would.

Sort I9 2 8 12 337

I: Er, 2, 8 and 12? [long pause]

T: All read very well those. I suppose those two [8 and 12] put a little bit more expression than him [2] but , um- I suppose that's it those two put a little more expression reading.

I: "read with more expression"? It's not that great a difference?

T: No no, it's sort of- of course it's a bit difficult when they're just reading one line as you can't really put a lot of expression into that. But um, so I suppose it would have to be a sort of perhaps more unsure, or what's another word we could use for that?

I: Unsure? Like expression?

T: Hesitant or-

I: Yes, not fluent.

T: Yes.

I: I don't want to put words into your mouth-

T: No.

I: Not such fluent reading.

T: Yes.

I: Right.

T: Although, having said that, he-

I: He'll probably- on the scale, he'll probably be quite- towards this end.

T: Yes, yeah

I: That's fine, that's why you can make those distinctions. [Shall I shut the door, long pause]

T: So those would be- seven, is that the highest?

RATED

Sort J10 5 9 11 377

I: OK, I've got 5, 9 and 11 next. [long pause]

T: Yes, those two [5 and 9] are sort of worriers. Always unsure whether they are doing things right.

I: How does that come out in their reading?

T: Well I suppose that again shows up with the confidence, doesn't it? Or-

I: Will they try new words they are not sure of?

T: Um, yes they will, well they will if you say-

I: They need a bit of encouragement?

T: Yes. Yes they need encouragement to sort of tackle new words.

I: Right 'cos they don't- 'cos they're not sure, because they are worriers?

T: Yes, oh yes, those there are, yeah.

I: OK.

T: They always want reassurance

I: Yes, yes, that's a good phrase. Need a lot encouragement and reassurance?

T: Yes, yes.

I: Need a lot encouragement and reassurance with reading?

T: Yes.

I: Right, where as at the other end of the scale?

T: He's- he's um, no he'd sort of find things out and have a go, will tackle things.

I: Will a have a go?

T: Yes.

I: At tackling unknown words.

T: Yes.

INTERRUPTION

T: Er, so. Which is the?

I: One needs a lot of encouragement,...

RATED

I: All of them are seven right, just have a go at reading?

T: Yes, of course they're older, so, well except for her [8] because- but then as I say she's just a natural reader, so she finds it easier.

Sort K11 4 6 8 422

T: 4, 6, 8. Oh well, those two are very poor readers and she's very good.

I: Yep, that's fine, that's the most straightforward one- those two the similarity is that they are very poor, which one is, 8?

INTERRUPTION

I: Good reader? Very poor readers, good readers.

T: Right, so one is?

I: Very poor...

RATED

Sort L12 1 9 11 468

T: Again these two- well this has come up before- those are much more confident readers, and those two good readers- although he is improving-

I: He's not confident and he's not very capable?

T: Well, he's getting a lot better lately, he's getting the grasp of things lately, but he's not been with us all that long.

I: Right.

T: He came, it was this year he came, at Easter time I think that he came so he's only had one full term.

I: You were saying the school he was at before where they had much less structured reading scheme?

T: Yes. Yes, that's right.

I: So he's making a lot of progress?

T: Yes, he does seem to be lately yes.

I: Because that could be your contrast, making a lot of progress-

T: Although those are good readers so they are.

I: So good readers.

T: We've done that, good readers.

I: And very poor readers.

T: Yes.

I: Anything at all connected with reading? Or do you want to that again?

T: Um. They all do the work at home. [pause] Oh, I suppose those know- they're [1 and 11] more confident with initial sound work and that, and blends than R. [9] These are more confident with blends of sounds.

I: More confident with sounds and blends, yeah? And what do you want to say about R. ? [9]

T: Unsure of his initial sounds.

I: Unsure of even- yeah right. Unsure. Do you think that's because in the previous school was there not an emphasis on that kind of phonic work?

T: Well may not have been. Yes, yeah. And some of them with the Year 1s, are just starting their initial sounds so of course they're um, but even then there's a difference, between the Year 1s, some already know all their initial sounds and they've started on the blends which is why you've got- 'cos that's just Year 1 work on the board. They have do Year 2 on a different day 'cos they haven't got three boards!

I: Yes, having a mixed age group must be quite- makes you change the way you-

T: Because they have to do this sound work on a different day because they're on um, middle sounds like "oo" and "ee" and that, so- and then there's three girls that know all their initial sounds, so we've done vowels in the middle and they're moving on now to the blends, where as the others are still just working through their initial sounds.

I: Right, but you have- like you have quite an organised scheme which you work through them with, its just fitting- like timetabling the children into doing it.

T: Yes.

I: Right.

T: So we want to know the ones that are confident with sounds?

I: And down at the other end they're not even sure of initial sounds.

T: Well confident with sounds as far as they've got it I suppose we would have to say.

I: Appropriate to their age?

T: Right. I think that's right, so which end are they.....

RATED

Mrs RP T7 Red Primary School

Feedback interview

1 June 1995

Re-rating first grid

A1 difficult to hear them read, very quiet speaking voice
louder

T: The important thing, especially with the older ones, is trying to get a bit of expression in. Thinking about what they're reading, he's very good with his reading, but that's- some of them just read it off without really thinking about what they're reading. When you ask them about it, and they seem to know what they're reading, but there's none of the expression in it, she's quite expressive as well, he can be, and he can be but it just depends what mood they're in.

B2 not used to the structured reading scheme
getting on well with the structured reading scheme

C3 very good readers
more average readers

I: So she's come on a lot, how has she come on so well?

T: Er well, sometimes its to do with books because they go through the main books 1 to 2b, ever such a lot of words to learn there, and usually once they've finished those, if they are going to take off they usually do, and she has done.

I: So she's just finished them and-

T: Yes. Yes.

I: So its once she had that kind of core-

T: Yes, sort of the basic words, yes, once she got those then just seemed to take off really.

D4 need home support
natural reader, don't seem to need much home support

T: These all read very well but they've all had home support from the beginning which seems to have helped them.

I: So its hard to say whether it was natural or whether it was because of the home support?

T: Now she's getting a bit more, but she was definitely a natural reader she was. These, I mean they've all had the home support so its very difficult to say-

I: You can't separate it out-

T: They've all had a lot which has helped no end of course.

E5 good readers
less good readers generally

F6 a lot of home support with reading
get very little home support with reading

G7 lacking confidence in their own reading
very confident reader

T: Those are the very confident ones.

I: So those are the very able ones, is it the ability that causes them to be confident?

T: Um, sometimes, except him, he always thinks-

I: That's why they're all anonymous!

T: Whether it's the influence, because mother was apparently, you know, I know its sort of stereotyping, but you know they have that general thing about the arrogance, and I know its not always true to type, but that's the type that seems to come over because he always thinks he can do things-

I: Although he's one of the ones that struggles-

T: Although he can't, but he always thinks he knows everything and can do everything and-but he can't. And he had special help, and even the ancillary that takes him, says he's the same there, thinks he can do everything but when it comes down to it he can't. But its obvious he can't because he's not been to school, I mean you know, but he could more than he actually applies himself to, if he applied himself he could do a lot more, could achieve a lot more, but he's just very very lazy. I spoke to his aunt, because of course she's looking after him for this year, and he's exactly the same at home as school.

I: So its not just reading, its everything?

T: Oh no its general attitude. No not just reading its with everything.

I: But generally the confidence reflects the ability?

T: Yes, on the whole, except for him. And if he thinks that he's got something right, oh my god, chest comes. But you know he reminds me of... worrier, like it at home as well

H8 find it difficult to learn new words
find it easier to learn new words

I9 read with more expression
not such fluent readers

T: Very hesitant.

I: Is that because they are just struggling with the actual words?

T: Yes, yes. Yes they are having to think about each word that they are reading.

I: Right so, yes its hard for them, that will come when- as their reading gets better?

T: Well, hopefully.

I: What can you do to encourage them to be more expressive when they can-

T: Well, when they are coming up to perhaps the stage where these are- I say to them "think about, you know, the words that they are saying, how would they say that, how would you say that if you were speaking to someone" you know, so try to get them to think about- people are actually saying those words, that we don't all say it at the one level. But its sometimes, yes it does take a bit of doing with some.

I: Yes its a difficult thing.

T: I mean in a way it depends how they've had stories read to them at home. Because when some parents read they might just read on the same tone without changing voices-

I: Or putting on voices for characters-

T: Yes. One time my daughter said to me "Oh, now don't read it in a scary voice because I want to sleep"

I: Yes, 'cos its quite an art! Right, so if they've got a good model they might be more expressive. Good point.

J10 need a lot of encouragement and reassurance with reading
 will have a go at tackling unknown words

I: She's been so reluctant to have a go-

T: Yes, she's very lacking in confidence of her own ability, with everything. Yes that was the thing I put on her report as well.

I: Does she just not like to be wrong?

T: Yeah I think so, she's sort of very lacking in confidence in her own ability, with everything. I mean, she'll copy off other children's work, and yet when I say to her 'I want your work not theirs', and she'll go and do it again, and she can do it! That's the annoying thing about it with her, and you keep trying to sort of boost up her confidence, but you know-

I: She can do it.

T: Yes.

I: Yes, I said "go on have a go, it doesn't matter if you're wrong" but-

T: Mum seems sort of fairly aggressive sort of- could have something to do with it, and sisters very sort of pushy as well, so whether- younger sister, so whether that's got anything to do with it I don't know. Sometimes it does doesn't it?

..

T: Normally you say to them, oh just have fun it doesn't matter, just do your best, have fun and if you don't win it doesn't matter.

I: 'Cos there's only one person will win won't they, everyone else is going to lose if you look at it like that!

T: So just enjoy yourselves and have fun, that's what most people say don't they, but no. I mean when she came to the parents evening, the first one we had, she said "oh I hope she's good enough, I want her to be good enough because I was good enough", and I thought, oh dear, well she's having that sort of thing-

I: Oh dear, she's only what, six?

T: Right, they need a lot of encouragement.

TAPE STOPPED

K11 very poor readers
 good readers

L12 more confident with sounds and blends
 unsure of initial sounds

T: And you mean, sort of sounding out, building up or do you just mean to know them to look at them?

I: Well, its what you said so its what ever you want to mean-

T: Oh Right, OK.

I: That's the problem with it being so long ago, you're thinking, now what did I-

T: Right OK then. They're all pretty sure of their initial sounds now.

I: So there's no one who's' quite at that end now.

T: No, because the two having the special help, that helps quite a bit. ... I suppose really now its sort of moved on from there, as to actually knowing the sounds and blends, 'cos the Year 2's have started some blends, as to actually using them in their reading.

I: Ah right, now its kind of more into using them as well as knowing them-

T: Yes, so that when they come across a word that they're not familiar with, they er- can use the blends and sounds that they know to try and build up the words, so that's-

I: Word building skills now?

T: So um.

I: Yes, that reflects where they were *then*.

RATING

I: ... confidence and expression, if you could just pick one thing out that was the most important difference between them in their reading-

T: Between all of them you mean or between the poor and the better ones?

I: Between all of them I suppose.

T: Most of them get good home support, there's only the two. I suppose expression, a lot of them are not very expressive when they are reading, and what was the other? Oh any of that-

I: If you just had to say one thing that was the most striking difference between them?

T: Perhaps I suppose confidence in a way, yes. And in a way quite a lot of the things are linked to confidence aren't they?

I: Right, the confidence- which comes first the confidence or the ability?

T: Well I suppose it varies with the child but really I suppose on a sort of average, I would say confidence comes with ability, as they get on, so confidence grows.

I: Right, so its their confidence which reflects their ability.

T: On the whole. You always get the exceptions.

Feedback Interview

TAPE ON

T: Because are these in order of um- these here, these first four, are they in any- you know the order that they're [elements] 1 1 1 2 1 2 are they?

I: Similarities- but if you look all these- these seem to be all the positive ones really aren't they like 'confident' 'good readers' 'expression' 'good' 'more confident' again so that little group there have all come out very very similar to each other, and very much confident good readers.

T: That's how they are, yes.

I: But is 8 not quite with them there?

T: Yes, well she's Year 1. Well she's one of those natural readers you see, so-

I: So she is a bit different to-

T: Yes, yes. There all Year 2.

I: Oh yes- that's fair then, that's-

T: They're all Year 2 and she's Year 1, so yes that would be about right.

I: But they've got a little group of their own there haven't they, where they are quite similar?

T: Yes.

I: And at the other end of the spectrum-

T: Those two [4 and 6] but, um, 10 and 7 she's actually moved on I would say.

I: Right, so when we do this again for this year she will-

T: I would have thought so.

I: Kind of moved?

T: Well she has done, she has improved.

I: So is there anyone else who is going to have moved quite a lot from their-

T: No I don't think- she's coming on really well, she's doing really well, and she's beginning to now. But I would say possibly-

I: But the one who's really come on is R. [8]

T: Yes.

I: And those two seem quite similar, 3 and 9, is that?

T: No, because she's beginning to come on a little bit better now, she's in the same position as R.[7] except R.[7]- just seems to have suddenly clicked with R. [7] and she's sort of- but V.s [3] been- she's finished the 2bs now and she's on the green platform books, so she's the same as R. [7] but um, R.s [7] going through them a lot quicker, because she has been away, I think she had week off or something V. [3] and on holidays, you know, and that puts them back sometimes a bit, because they think "oh doesn't make any difference holidays" but it does.

I: Yes, that's two weeks out of school time?

T: Yes, and especially now we are on all this planning, we all have to do this like medium term planning and that, so you have to do certain things on certain weeks and you can't repeat them, so if they've missed it they've missed it. You can't- there's no room for going back.

I: Yes, she's V. [3] seems to have come out as quite similar to-

T: R.[9] wasn't it?

I: R. [9] is that- is she quite similar to R. in terms of her reading?

T: Well perhaps she would be but I think perhaps- but of course its difficult because he's [9] Y2 and she's [3] Y1.

I: Oh right, so for different reasons-

T: Yes, I suppose they might well be quite similar, except that I think perhaps that she'll be um- perhaps reading a bit better than him at this stage.

I: Now, right, so they might have been similar then, but now-

T: Well she's just beginning now, so perhaps in, say, another few months time we ought to see a difference.

I: Yes. It will be the summer holidays then won't it. So the two who are most similar to each other are A. [4] and D. [6] and they're most different to the rest of the group-

T: Yes, yes that's right, yes they are.

I: They're not really joined on to them at all.

T: Yes, they are, because even- because when you're doing work with the class you always have to have special work for those two, so they are completely different.

I: So would you say that's quite an accurate representation of how they were then?

T: Yes. Well, and how they are now because they still have-

I: They still have, yes.

T: Like today with the Y1s, all the Y1s did that board except A. [4] and D. [6] and they did that board.

I: Oh so when I do this they'll still be on their own?

[interruption]

I: It's exactly the same thing [the construct dendrogram], how closely they match.

T: Aah, right yes.

I: We can see again, the most similar ones "very poor readers-good" [K11] "very good readers" [C3] have come out as the same kind of thing, which I suppose is exactly what you'd expect. They've come out in a little group here of "needing a lot of encouragement and reassurance" [J10] "finding it difficult to learn new words" [H8] and "not being a very good reader" [C3 and K11] they've all come together, is that usually true?

T: You mean the three things that come together? Yes, yes, yes they do. And of course sometimes that links up with it as well "home support" [4 or 6] with learning new words, as if they don't have that extra back up as well at home, that's er-

I: That goes with the needing encouragement?

T: And learning new words and that.

I: Right, that's the practice?

T: Yes, yes. I mean I know sometimes it's difficult with them when they're not terribly good at reading, they find it quite difficult, they've been in school all day and I can understand they don't want to do it again at home, it can be difficult but, you know, you just have to persevere.

I: Yes, that's come out as quite similar as um- "needing the home support and being a natural reader" [D4] has come out quite closely with "reading with more expression" [9] do you think that's generally true, if you're a natural reader you read with more expression?

T: Well I suppose perhaps you would in a way because you're not having to think quite so much, have you?

I: Right, yeah.

T: Because sometimes they're not putting a lot of expression into it because they have to concentrate so much on reading the words.

I: Yes. And home support there, that's quite on it's- that's the one that's most different to the others see, because it's not- if you go back a few links it's kind of- it's right on the end there, it's not really related to the others is it?

T: Well the ones that get very little home support, well-

I: This dimension about "getting home support or not getting home support" [6] it's not- it doesn't seem to be so-

T: And yet I would have thought perhaps it would have linked up with those-

I: Yes, you might expect it to. Um, so that's why this isn't very accurate! Here, these two seem to come together here "finding it difficult [to hear them reading]" [A1] the volume really, and the "confidence" [7]

T: Well yes I think it is because they probably think if they're getting it wrong [voice drops to a whisper] nobody will hear them, if they're speaking quietly.

I: That's a good point, that's why they are together. Um, yes these three; "being a good reader or a less good reader" [5] "good expression or not" [9] and "home support" [4] they seem to join together, is that what you would expect? Is there something underlying that goes with those three?

T: Well sometimes some people, I was thinking of him, he gets a lot of home support, but he's terribly poor, I mean he is improving, you can't say that he's not improving, I mean he does try, but some children just find it very difficult don't they?

I: Yes.

T: But that certainly seems to help with most of them, you know, if they get the home support that really makes quite a lot of difference to them, especially in the initial stages when they first begin to read. Well I mean you obviously get some, who even though they have the support, they still struggle, but I think that's just, you know some are just slow learners.

Concept Map

I: I would be interested- the first teacher I did this with she said I should try asking everyone, so I've been doing- trying to ask everyone how they relate to each other and what causes it, um because are you saying the home support causes them to be a good reader?

T: Well it's does sort of help them, you know, especially in the initial stages when they have a lot of words to learn, they can have plenty of practice for that, that certainly helps.

I: So it kind of-

T: In the initial stages.

I: Being a fluent reader-

T: Yes, its sort of the practice and the extra help at home.

I: Yeah. Practice isn't it? Which are the ones about being a fluent reader? How does their confidence relate?

T: To the difficulty in hearing them read you mean, no?

I: To them being fluent readers, you were talking about-

T: I think perhaps, their ability, once they start to read really well, their confidence really grows.

I: So shall I draw that one kind of goes on to their having confidence, once-

T: Yes, confidence in their own ability in reading, yeah. I mean eventually you get more expression and-

I: Right, so does that come from the confidence or?

T: I think so, yes.

I: Yes. That's an interesting one, which one was expression, 9?

T: Yes 9.

I: Yes, this being a natural reader or needing home support, does that fit in with any of them at all?

T: I mean even if you are a natural reader you still need some home support, but um-

I: To become a fluent reader?

T: Yes. But I mean obviously it's easier for those children that just take to reading.

I: Yes, some just have it, they're just different are they?

T: That's right, they just suddenly er, just sort of take to it, and then- that's sort of it somehow. Because I had, I've not got her down here, but there's another little girl, she came to the school this term, no this year and of course she hadn't read any of our books, so she had to start right from the beginning, and she's um- oh did you have S. [not an element, but heard reading aloud] this time ?

I: Yes.

T: Oh well it was S.

I: Oh she's doing really well-

T: She's doing really well, because she's Y1.

I: Oh is she, because she's quite big actually isn't she, I thought-

T: Yeah, yes, yes, no she's Y1-

I: Oh she's the one she read the whole book-

T: And she started at pre-reader 1, I mean I gave her a few books at a time to read when I could see she was getting the words right, but she was just able to read the words really quickly and retain them.

I: Yes.

T: Um, 'cos she only started with us in September you see,

I: so she's doing-

T: She's done really well.

I: She's got the home support and-

T: Oh yes, yes. Oh yes, that's a big difference. But we happen to do is if they're reading really well like that, to read the set pages in the book, and then perhaps read a different

book at home. Because you can't ask them then, if they've read the whole book to predict, which is what they're supposed to do as well, what's going to happen because they already know because they read it.

I: I got her to tell me the story and she just sat down and told me the entire story and what happened at the end, she obviously had good comprehension.

T: Yes.

I: Are there any others here we haven't mentioned? Oh yes the volume, hearing them, how does that fit in?

T: Well that fits in with the confidence really doesn't it.

I: That kind of goes in there at the confidence does it, it's the volume.

T: And other children- well yes I think that does, confidence and the volume seem to fit together some how when you think of them.

I: That's both ways is it? If they've got the confidence, they're louder-
[interruption]

I: And if they haven't got the confidence they tend to keep quiet?

T: Yes. Even once they start reading really well and that, some of them you know are still- because- very quiet, you know, but some of them- they're like that with the maths as well, if they're having a new concept, oh very unsure at first, and then once they've got it they're fine, and if it's presented in a different way that they're unfamiliar with, oh that throws them then, and then you say to them, well it's this, now you know how to do that don't you, "yes", well this is exactly the same only they've just asked you in a different way, "oh right", and then they're fine you know, but oh, the confidence goes at once, very shaky.

I: And the volume is the same when they're not sure? I suppose everyone does that a bit. Well what was this one, oh yes, not being used to the structured reading scheme, does that fit in at all-

T: I think most of them get on pretty well with it, in fact sometimes when they go on to the other books, "when am I going on to main book 5?" because they know the order, most of them know the order and then "when am I going on to that book, you know "I've read one or two of these books now, when am I going back?", you know, I think they feel- well that gives them a bit of confidence I think.

I: Does that affect their confidence then, if they're getting on well with the structured scheme gives them that- gives them the confidence?

T: Yes, the only trouble is I suppose it makes them a bit unsure when they go on to something else, they think, "oh gosh, you know, coming across here words that I haven't heard- don't know"

I: And new characters?

T: Yes, new characters yes.

I: So that can affect their confidence either way?

T: Yes, well you know, especially the average or poorer readers because they're anxious to get back on to what they're familiar with.

I: Yes, it all comes in to the confidence. Er, what was [construct] 5, oh just being a good reader, I suppose that's being a fluent reader or a less fluent reader. What was- finding it difficult to learn new words?

T: That links up with home support as well,

I: Oh yes.

T: If they don't get a lot of home support learning new words, they don't get the extra practice.

I: Right, it's the practice?

T: Well especially when they look and say in the beginning before they start on the phonics and that. [interruption]

I: So if they have- if they find it easy to learn the new words, that leads on to being more able and- so sort of home support especially-

END OF TAPE

Mrs RP T7 Red Primary School

New Elicitation Interview

14/15 November 1995

Sort A1 5 7 10

T: These two [7 and 10] are similar in that they find- they don't always have a lot of help at home, she [5] does.

RATED

Sort B2 2 4 9

T: Reading comes quite easily to him, he [9] doesn't have to work at it but these two do.

I: So he just succeeds, it's not difficult?

T: No, because he's not the world's worker. I mean, he's got the ability there, but very laid back.

I: They [2 and 4] have to work at it, not as much as some of the others, but compared with him [9] if you see what I mean, takes more effort with those.

I: So why is it, has he just got a good memory?

T: Well yes it could be memory, yes, memory does seem to help doesn't it, with the reading, especially initially

RATED

Sort C3 1 7 12

I: [prompt asking about the children]

T: But they've just really taken off now, they've got a bit older, well I mean not her, she's been reading well for-

I: Always?

T: And the stories she writes sort of reflect the things that she's reading.

I: What kind of things?

T: Well, they were writing about happy memories, it sort of followed on from an assembly they'd had, and she'd written like "blue of the sea, spade in hand" and then another thing she'd written about; they wanted the father to go up into the loft to fetch something so "pushing, pulling dragging dad the children forced him up into the loft" sort of thing its just that she can phrase it I mean sometimes she'll do about six pages, I mean sometimes it will just be a page, but I mean, all the little sayings are there And she's great, of course you don't mention any names, but at parents' evening they think "oh there's plenty of time" you know and there's SATs coming up and then they're being a bit laid back about it because their son's not working, and then you say "well there is one child here-" and they say "really?"

I: She's [1] your example?

T: "You know she'll definitely get a [level] 3 at least a 3 in the SATs, well" I said, "your son will be struggling to make a 2 because of the amount of work that he does", so, oh they're sitting up then! Tape recorders going. Right so there are these three [1/7/12] course the other thing about the class is before they came to me they were actually split. The older group were with a mixed Y1/Y2 class and the younger group were with a large

R/Y1 class, so they followed the same sort of schemes of work but is made a difference to them with the younger group being in class with reception, where as the Y1s in with the Y2s, they always try to to tend to push themselves a bit harder to keep up with the Y2s 'cos they love to do the same as the those. Where as it seems to work the opposite way Still he was one one of the younger ones, and those two were of the older ones. So in fact those two are the oldest two in the class, see they're September's. Now reading. I'm trying to think what, I mean I can't say- I'm trying to think- we've done comes easily, which it does to her [1] they have to work at it, specially him. I'm trying to think of something two have got in common.

I: 'Cos they're all quite different are they?

T: Yes, the only thing is these started school a lot before him because of course the summer born children don't- they only have a short time.

I: Do you think that's been reflected in their progress now?

T: I think it does affect them, I think it is an advantage, yes I do. The summer born children definitely lose out, especially those who perhaps need a little bit extra help or something, well especially in the beginning you know, or even the average child. I think if they're sort of, you know, above average I don't think it makes a lot of difference to then, but if you're sort of average or below, I'm sure it makes a big difference to you say children whose birthday is September like these, they will start in September and have two terms, where as these won't start until April.

I: Do you want to say something about that then? 'Cos if the difference is still showing at Y2?

T: I suppose you could have- it's very difficult to say whether it- but I'm sure it would have made a difference to them, they've had an extra two terms in school, because at this age that's quite a bit isn't it, two terms, and the Autumn term is quite a long term as well, usually about 18 weeks, and the summer term is very short, only about 10 weeks, so they only have about 10 weeks in school.

I: So these two have an advantage in reading.

T: They have in that they have been in school longer.

I: So what shall I say?

T: Unless-

I: Longer time in school reflected in better reading?

T: I don't know if that's the case with her [1] though, because I think she would have been there at any rate.

[I suggest we return to this later]

Sort D4 3 9 10

I: Any similarity there?

T: Perhaps the sound work, they [3 and 9] know better than- you see 'cos he was the summer one, but his reading, because it just sort of comes, he's really overtaken some of the others.

I: So he's not at a disadvantage?

T: No he's not, but then , I think that would have happened, he'd probably have been even further ahead, perhaps So, er sounds.

I: And the similarity's that?

T: Yes, they have recognition of sounds really, er, building up words during reading.

I: So more more familiar with phonics and word building?

T: Yes.

I: Go on, you say, I don't want to put the words in your mouth! [laughter]

T: Yes, that's what it is! More familiar with phonic blends.

I: Where as?

T: She 's[10] still struggling on the initial sounds.

RATED

T: Well it's difficult with her [excellent reader] well, she seems to know them but she doesn't need them , you know what I mean? She's another one that just seems to read.

Sort E5 1 2 11

T: She's [2] not so fluent as those two [1 and 11] when they're reading.

I: When they are reading aloud.

T: Yes, reading aloud.

I: And the similarity is?

T: I mean they're not, obviously in the same- she'd [1] be just ahead, but they're quite fluent when they're reading.

I: More fluent.

RATED

Sort F6 3 4 12

I: Is that difficult?

T: Well nothing springs to mind immediately.

I: Are they all very similar or all very different?

T: I suppose he's struggling more than the other two are over this. I can't think of - you know some just sort of jump out, and you immediately think of something, don't they?

I: You're allowed to have the same thing again.

[I suggest we return to it later]

Sort G7 3 7 8

T: Well I suppose, on the whole, these two [3 and 8] try quite hard, but he's not particularly bothered.

I: So it's the kind of effort that they're putting in?

T: Yes.

I: So these two [3 and 8] what shall I say?

T: Work hard at reading.

I: So they take their books home?

T: Yes.

I: Where as?

T: I don't think he's bothered.

I: Is that because he doesn't like it or enjoy it or he's too laid back?

T: Yes, I think perhaps if he applied himself a bit more he'd get on a bit better, but I mean I think when he gets home he'd rather be out playing and it's a one parent family, so that also doesn't help. Well, 'cos it's all the onus left onto the one person then isn't it? Where as if you've two parents there, at least you've a bit of support for one another and you can say "oh now come, go with dad or with mum or something" can't you, but if its just you there to see to everything-

I: So they [3 and 8] work hard at reading, and less bothered, less interested? Or less effort?

T: Less effort really.

I: Is that with all school work, or just reading?

T: Well he's getting a little better lately, but only because I keep nagging, you know, and had a word with mother. I suppose maths he works best at because there's less effort there isn't there, with actual writing?

I: Right, so who are the hard workers and who are the lazy ones?

RATED

T: Well it's difficult to say with those three [fluent readers] because, I mean, reading comes easily to them. But they do read at home. They still- they regularly take their books home and read. And these two [7 and 10] would be 7, [lazy rating] I mean, I think, it's not just them. I think it's parents as well, don't always give them as much encouragement, both one parent family.

I: And that's something you've brought up at parents evening, about the- try harder.

T: Oh yes. But you wonder with some why they bother to have the children. It's "oh they're so babyish" you know, that's what one parent said to me, "so babyish, not like her brother" who is twelve.

I: They'd be seven, eight?

T: Well she was six because she is one of the younger ones, she's like an August one, you know, so this is September, she'd only just gone six. And I said "yes you have to remember she has to go through all the stages her brother has gone through you know" I think she would like to have children born at that age.

I: Um, that's an appealing prospect.

T: No indeed not!

Sort H8 6 10 11

T: Right. Yes, well they [6 and 11] get all the things, you know, the help at home, and she [10] doesn't get hardly any.

I: That's fine.

T: And that's sort of reflected in their reading.

I: Is it usually reflected in their reading?

T: A lot of the time yes, unless they're just a natural reader, like some of them.

I: So, have all the support at home.

T: Yes.

I: So what should I put for the other end?

T: Little support I suppose. Very little support in some cases but- but I think, you know, if she [10] had a bit of extra help, if only, I mean we do give her some extra help with an ancillary in school-

I: To make up for it?

T: Yes, especially with initial sounds, to get her going on those, but I mean, I only have ancillary help three times a week so you can't use all that with one person. But it's- she really gets it, and when I spoke to her mum- it's just like speaking to a brick wall really.

I: So although you've mentioned it to both [the parents of the two children she considers to be getting insufficient help at home] of them at parent's evening-

T: Oh there's only the one, only one parent.

I: Who- there was another child who was in the same situation?

T: Oh yes, both one parent families.

I: And has this one- since you mentioned it at parent's evening have you had some improvement?

T: On the odd occasion, but there were two or three others [not in our sample] that I had to speak to as well, which are all in the same mould, and they've definitely improved since then. And strangely enough, I don't know whether it's anything to do with- but those, they all- well I don't know whether they are all one parent, the others [those who improved] all seem to have two parents. I mean, the one boy, I don't know whether his mum's with

someone else or not, but I know he does see a lot of his dad, but the nice thing was dad came with mum to the parent's evening, where as the others didn't, it was just the mum came, and they seemed to be on quite friendly terms, which sort of- which was quite nice. He seems to see quite a lot of his dad, the other boy, from what he was saying, you know. so you wonder sometimes if it does make a difference to the amount of time, well it's bound to make a difference to the amount of time, especially if you've got more than one child, 'cos there's three and she [10] is the youngest and-

I: And it's holding up her reading that she's not getting that practical help?

T: Um.

RATED

T: This is a strange one here, he can only have- hear read when both his mum and dad are there. If mum's out working dad can't cope with the two boys to hear them read. He can't control the other one- but if they're both there that's alright. Oh he came in the other day and he said "I couldn't do my reading" he normally does it to be fair, they normally do it, he said "I couldn't do my reading last night, dad said it was his night off" [laughing] I said "you tell dad there's no nights off!"

I: So he's keen enough to be heard read?

T: Oh yes, he's very keen.

RATED

These are the ones here that are always heard

Sort I9 2 8 12

I: Any similarities at all?

T: No, she's [2] a bit of an odd one because she's reading- the books that she's reading, she seems to be reading them alright, but put her out of the reading scheme and she struggles with books out of the reading scheme.

I: Oh right, what scheme is she on at the moment?

T: 1, 2, 3 and Away. We have 1, 2, 3 and Away and then at various stages, when they finish say, the section, before they move on, we've got all the books sort of colour coded, to match up with the scheme. So that we slot in, just ordinary library books, ones that match up, so they read about ten of those before they go onto the next batch, so that gives them a wider range of vocabulary, and also, when they come across something else, then they're not "oh its out of the reading scheme I can't manage it!" you know.

I: So they're seeing a wider variety? But she's OK on 1, 2, 3 and Away, but not on-

T: But she seems to struggle more on the other ones.

I: Where as those two [8 and 12] are equally happy whatever their reading?

T: Well she [8] hasn't read too many because she's a bit lower down on this, she's another who came in the summer. But he [12] doesn't seem too bad at the others, you know, he's not too bad. But she [2] seems to really struggle with books that are supposed to be on a par, you know on the same level.

I: But do you think they're not on the same level, or is it the content?

T: Well other people haven't- 'cos other people have just sort of gone through them, especially those who seem able to read. But I don't know what it is.

I: Do you want to say something about that?

T: Yes, I suppose you could say- [some discussion of how long the interview will continue] If we said- or something like, or if we could put it something like "reading books that are not reading scheme books" sort of-

I: She's less successful or less happy?

T: Less successful I suppose.

I: Less successful reading books outside the core scheme.

T: Yes, I think it is a good idea to have the other books as well.

I: And everyone else seems to enjoy it and get on fine?

T: Yes most of them do, I mean obviously they're going to come across words that are not in the reading scheme, but I mean that's all to the good.

I: So the similarity with the others would be? They're- what do you want to say?

T: I suppose in a way, they're a bit more adaptable aren't they? To reading other books
RATED

T: They would be definitely because of the standard they are reading at [high] they have to reach a certain standard before they find that easy, you know they have to have the base don't they?

I: Is that because of the change of characters?

T: Well, because in the reading scheme they tend to use a lot of the same word, they have a lot of repetition of the same words all the time, use a lot of reinforcing, where as in the other books they don't especially. Especially because there's some non-fiction books as well that they can choose. They choose which ones they fancy reading, you see, you say "go to the bookshelf" or whatever it is, and they choose which books they'd like to read, so there's a good variety there for them to choose 'cos some choose non-fiction ones all the time because "oh yes it was really interesting" you know they say.

I: So it's really they just can't cope with the less structured-

T: That's right, yes.

I: Where as these are more flexible? Do they still like to pick books from outside the scheme?

T: Well they do 'cos when they come in they go to the book corner and they sit down, and they can pick a book from any shelf they want, any at all, and any type of book, and they look at the books then.

I: So they're just as keen to do-

T: But sometimes people choose things from the reading scheme then. I mean, they're just all on the shelves, and they just choose whatever they want.

RATED

Sort J10 5 6 11

T: This is easy, reads with expression, or doesn't read with expression.

I: So this [5] is the odd one out?

T: Yes she is very much all on the one tone, even though she knows what she's reading, tries really hard, she just has to put a bit of expression in.

I: So reads very monotonously.

T: Yes.

I: And the other two, read with more expression?

T: Yes, I know when they get to a certain stage- when they're at the early stages, it's very difficult for them because they're concentrating so much on the words.

I: So it's only when they've got a certain amount of fluency that the expression can come?

T: That's right yeah. But she [5] should be having a bit now.

[I muddle up the pole ratings]

RATED

T: Which is the surprising thing, because tends to race and gallop.

I: Right so this is one thing that doesn't go with their ability?

T: No.

I: Necessarily?

T: No.

I: Even though you need a certain amount of fluency to get you started, it doesn't necessarily follow-

T: No, 'cos sometimes, 'cos they can read it they just gallop through, you know.

Sort K11 4 6 8

15 November 1995

[long pause]

I: So any similarity there is in terms of their reading?

T: No, they're actually sort of lower, middle, top end.

T: So ability, there are no similarities.

T: And sort of expression as well, she [6] reads with very good expression, of course she's [8] really thinking about the words more than expression and he's [4] just beginning on expression, so there again-

I: There's no similarities.

T: Help at home I suppose, but we've had that haven't we?

I: What we've had is [recap constructs elicited so far] but you can have things again.

T: Oh right. I suppose we could have "heard read regularly at home" rather than- 'cos that's slightly different, but not a lot, from the other one [construct H8]

I: Right, so the similarity is "heard reading regularly"

T: Yes.

I: And just, heard less regularly.

T: Yes.

RATED

Sort L12 1 5 9

T: Those are, sort of natural readers, have we had that?

I: We had one about effort.

T: Oh yes.

I: You can have things again. Natural, they just- its just clicks with them?

T: Yes it does, they just seem to- where as- well she [5] reads quite well, but it's not so natural as that. She needs to concentrate on- sometimes new words, she finds it difficult when she comes across new words. Oh! Forgot to put that, if they [1 and 9] come across new words they sort of, um sound them out and build them up and that and- she sometimes- they do that, sort of in the process of the reading, sort of thing and they just carry on, you know. They'll just look at words and try it out as they read it. And they normally get it you know. Where as she'll sometimes- she's alright unless she comes across a word that she doesn't know, say when you're working outside the scheme.

I: Right, so she can't- try new words?

T: Er, yes. Or finds it difficult sometimes when she comes new words sort of thing.

I: Where as they? Can they sound out or build up words? So they can- will, try?

T: Yes. They'll um-

I: Can succeed with reading unknown words.

T: That's right, yes

RATED

T: So when they learn the word, they learn them by sight or-

T: Well, they know their initial sounds, well she nearly knows them all, but they do have a go now where they start with the initial sound. But even if they can sound out the other sounds it's putting them together then, so they're at that stage of putting them together, sometimes they get it, sometimes they don't. But you have to- where as those [better] will do it without you saying "what does it start with?" each time you have to say to those, "oh, what does that start with?", you know, "now what's the next bit?", it has to be step by step.

END OF SIDE A

Returning to
Sort C3 1 7 12

I: So, um, is it the motivation or, enthusiasm or- Or would they rather just do something else?

T: Would rather play! Rather play than anything, but still, there we go!

I: Not just reading. Right. More interested in reading? Sorry I don't want to say it for you.

T: Er yes they are really. Yes. More interested in learning to read really. When you say to him, sort of "reading book" he's always quite keen to stay behind, if he's out of assembly for reading sort of thing, but then I don't know whether that's 'cos he's reading or whether because that's because then they're sort of getting special attention, don't they? So I mean I don't know.

I: So, less interested in learning to read.

T: Yes.

RATED

Returning to
Sort F6 3 4 12

[long silence]

I: Is that a difficult one?

T: Yes, I'm just trying to think. They all get about the same amount of help at home.

I: So they are all too similar?

T: Well, those two [4 and 12] are a bit more successful at building up than this one [3] but you know he does try. But they're a bit more successful at it.

I: Looking for smaller words in longer ones?

T: Yes.

I: And building up?

T: Yes.

I: OK, do you want to have that?

T: Right.

I: So the similarity is that- more successful at building up words.

T: Yes.

I: From sounds? They can do blends and-

T: Yes, that's right, yes.

I: Where as 3 is?

T: Well he's not right down at the bottom still, I mean, he tries hard but it doesn't come quite so easily for him.

I: Finds it more difficult? Finds it more difficult sounding out or sort of blending or-

T: Blending, more than-

I: Blending sounds.

T: Yes, phonics or-

RATED

I: That's fantastic! Of all the different things you said, if you had to say one was the most important difference between them in terms of their reading?

T: Well I suppose it's really those that are sort of struggling with the reading and the ones that just sort of read without effort. I dare say a certain part of it is natural ability, but the

other is groundwork that's gone on before they come to me as well you know. Because they've been in school a little while and of course help at home as well.

I: So by the time they come to you some of them are so much further on than others?

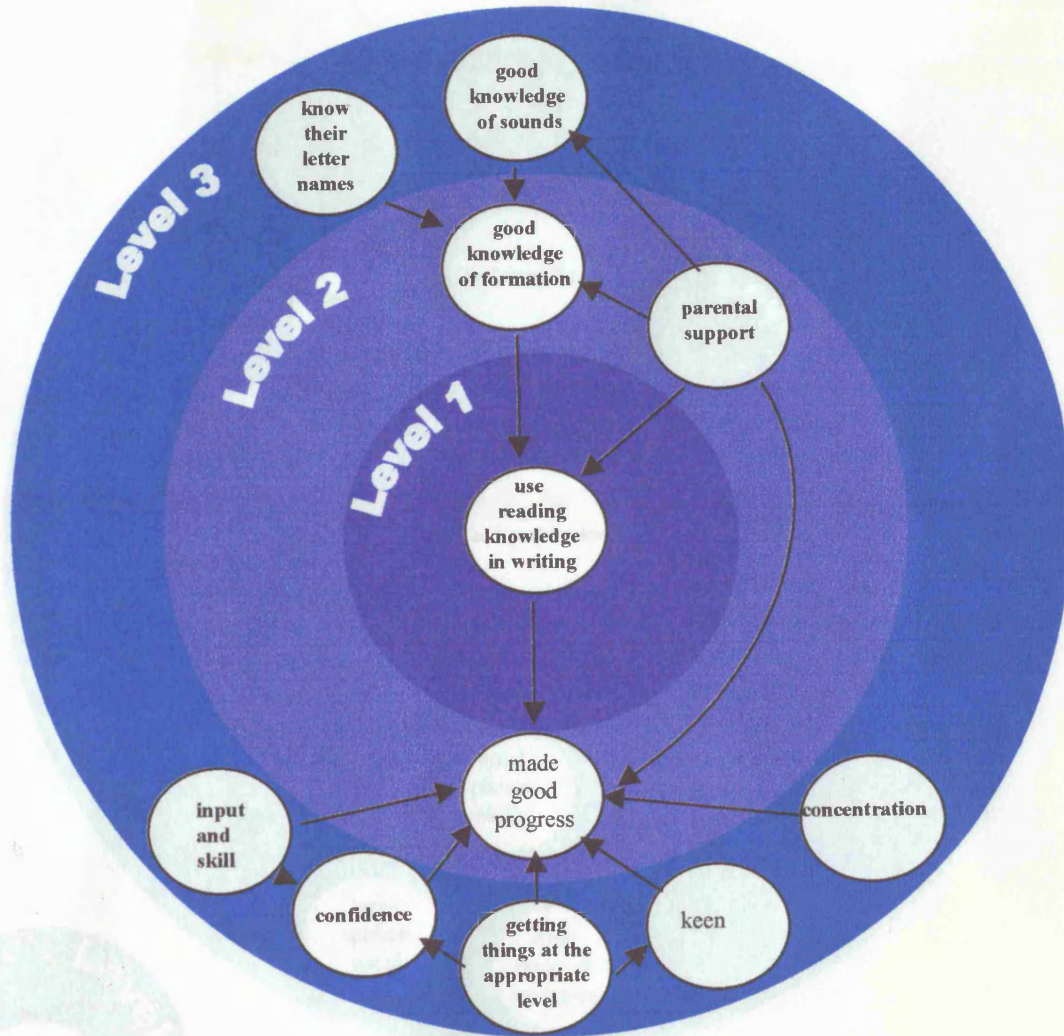
T: That's right yes. You know a lot of the groundwork has been done by the other teachers, and you sometimes find in Y2 they really take off some of them.

Appendix I

Main Study Concept Maps

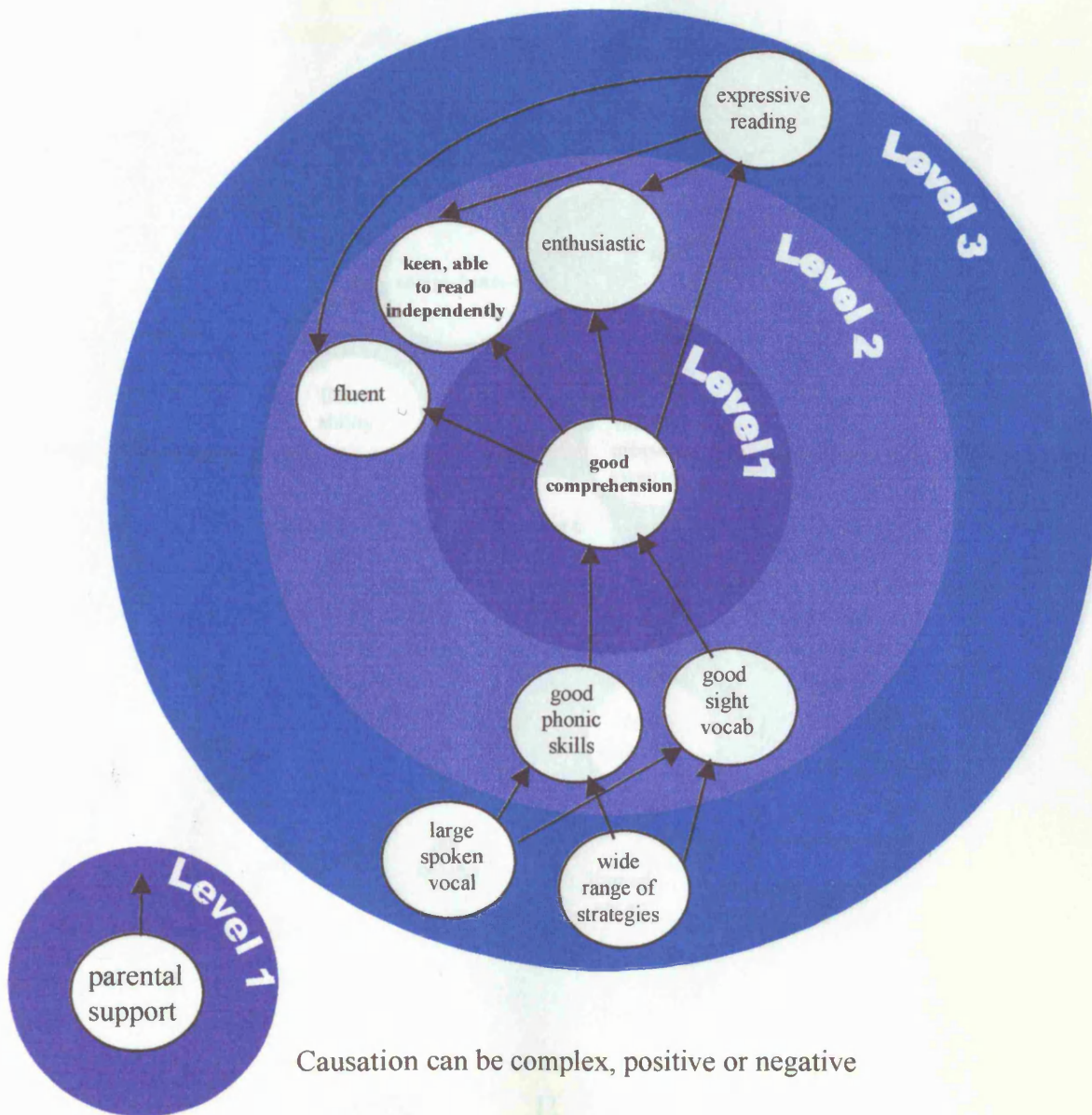
Miss GM T1 26 May 1995

Mrs DS T1 18 May 1995



nodes	11	
links	16	
chunks	3	
total depth	1 x 1	1
	2 x 3	6
	3 x 7	21
		= 28

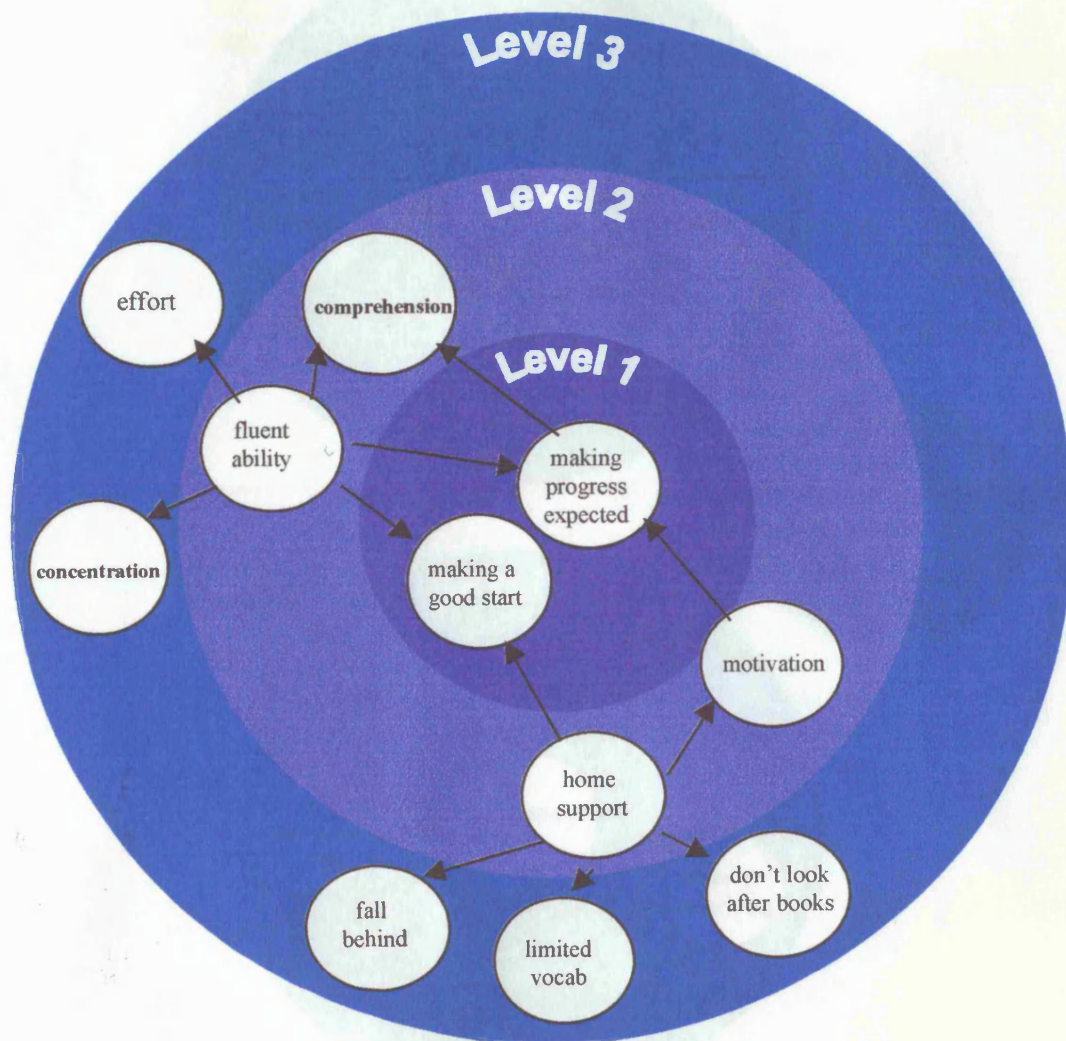
Mrs BS T2 18 May 1995



Causation can be complex, positive or negative

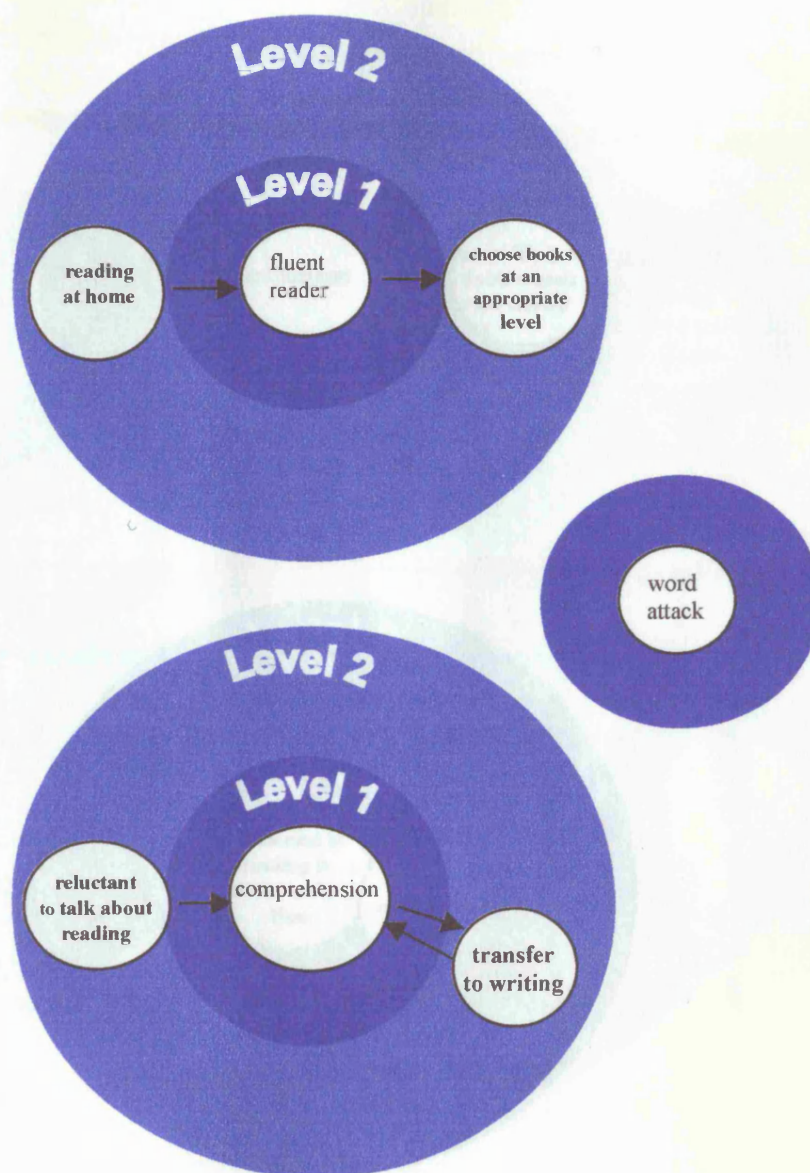
nodes	10	
links	14	
chunks	3	
total depth	1 x 2	2
	2 x 5	10
	3 x 3	9 = 21

Mrs BB T3 25 May 1995



nodes	11	
links	12	
chunks	3	
total depth	1 x 2	2
	2 x 4	8
	3 x 5	15 = 25

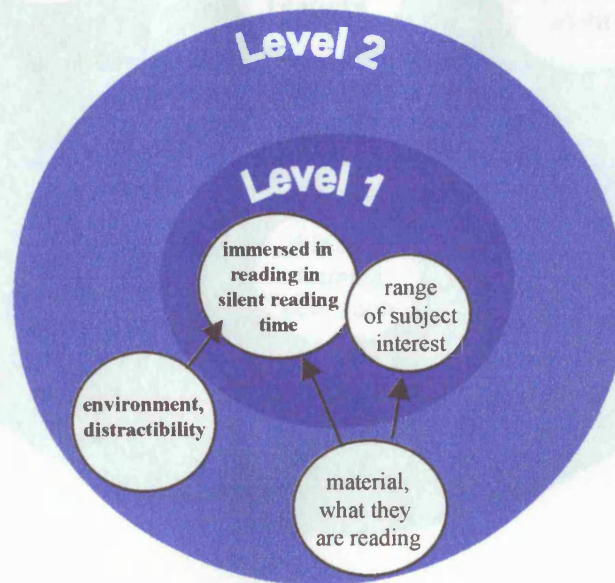
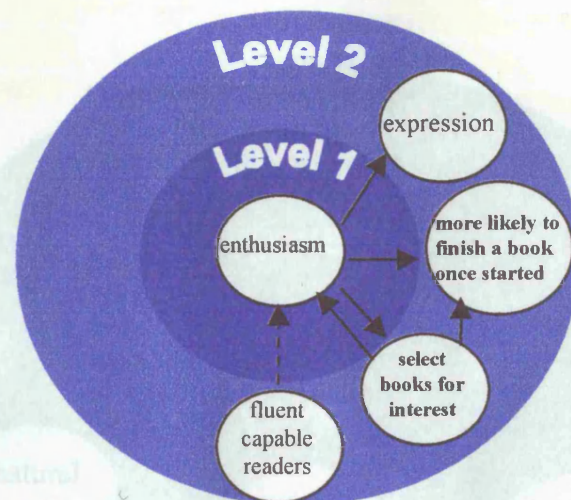
Miss RS T4 2 June 1995



Teacher commented 'the task is unreasonable, if we knew what caused children to be good readers we would be rich!'

nodes	7	
links	5	
chunks	2	
total depth	1 x 3	3
	2 x 4	8 = 11

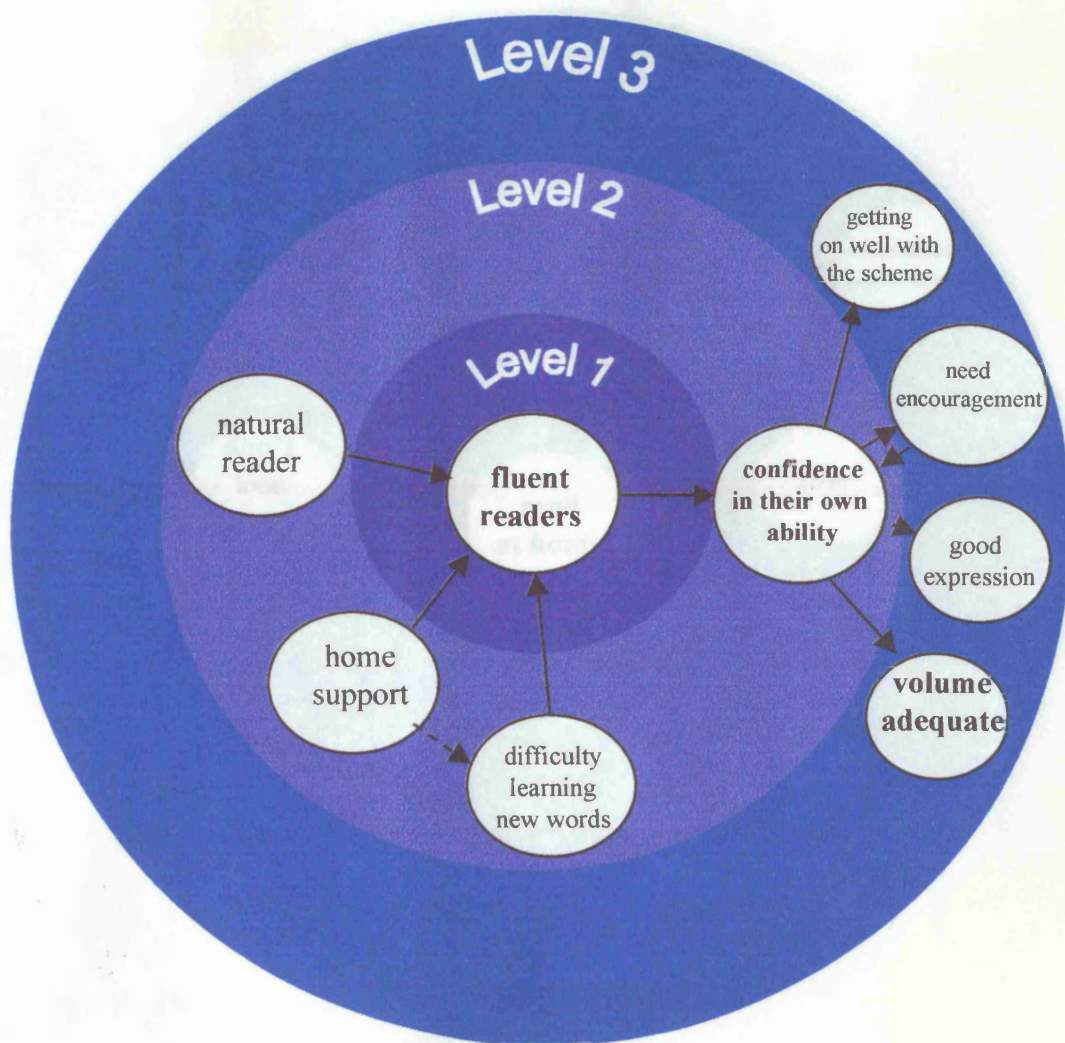
Mr RT T5 2 June 1995



not always

nodes	9	
links	9	
chunks	2	
total depth	1 x 3	3
	2 x 6	12 = 15

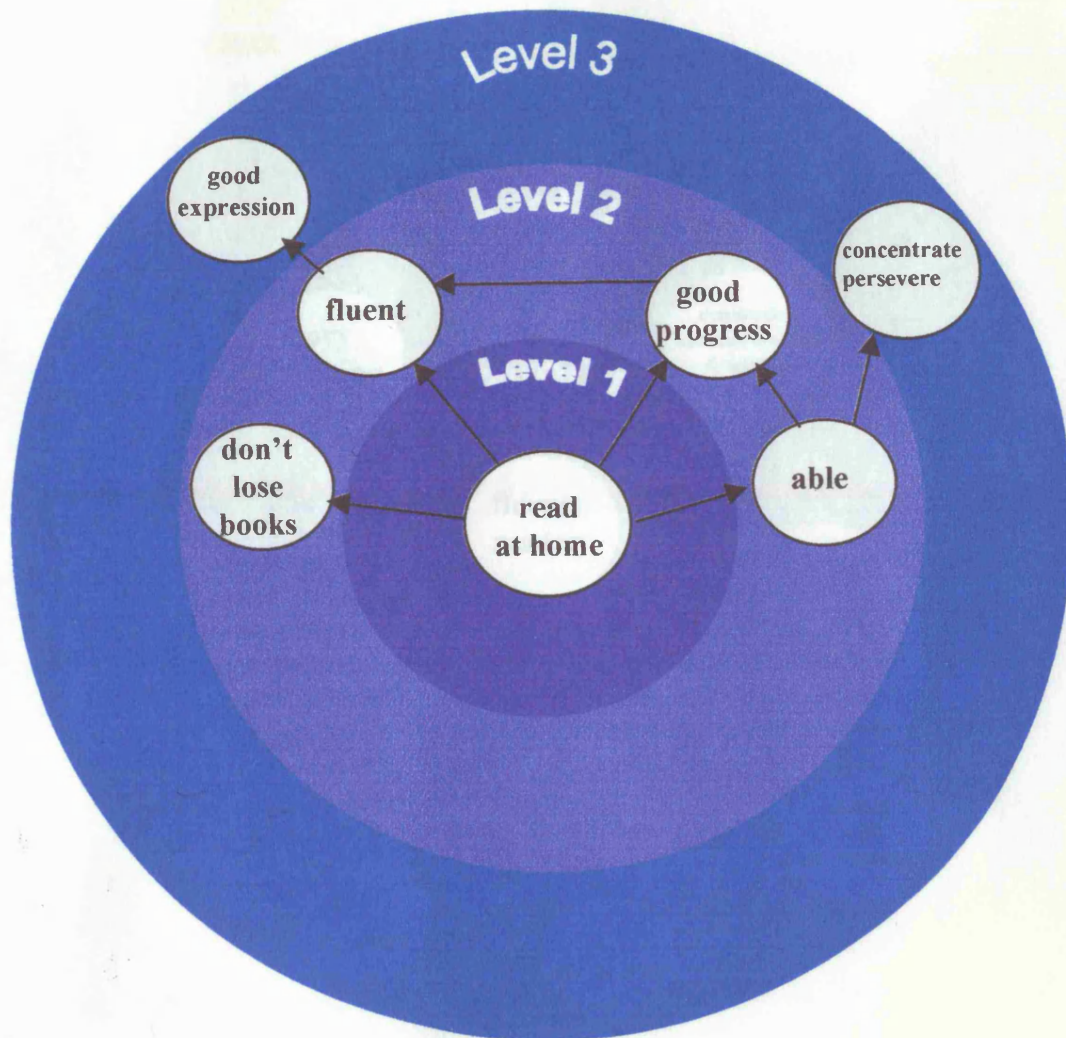
Mrs RP T7 1 June 1995



relationship esp. strong in the early stages

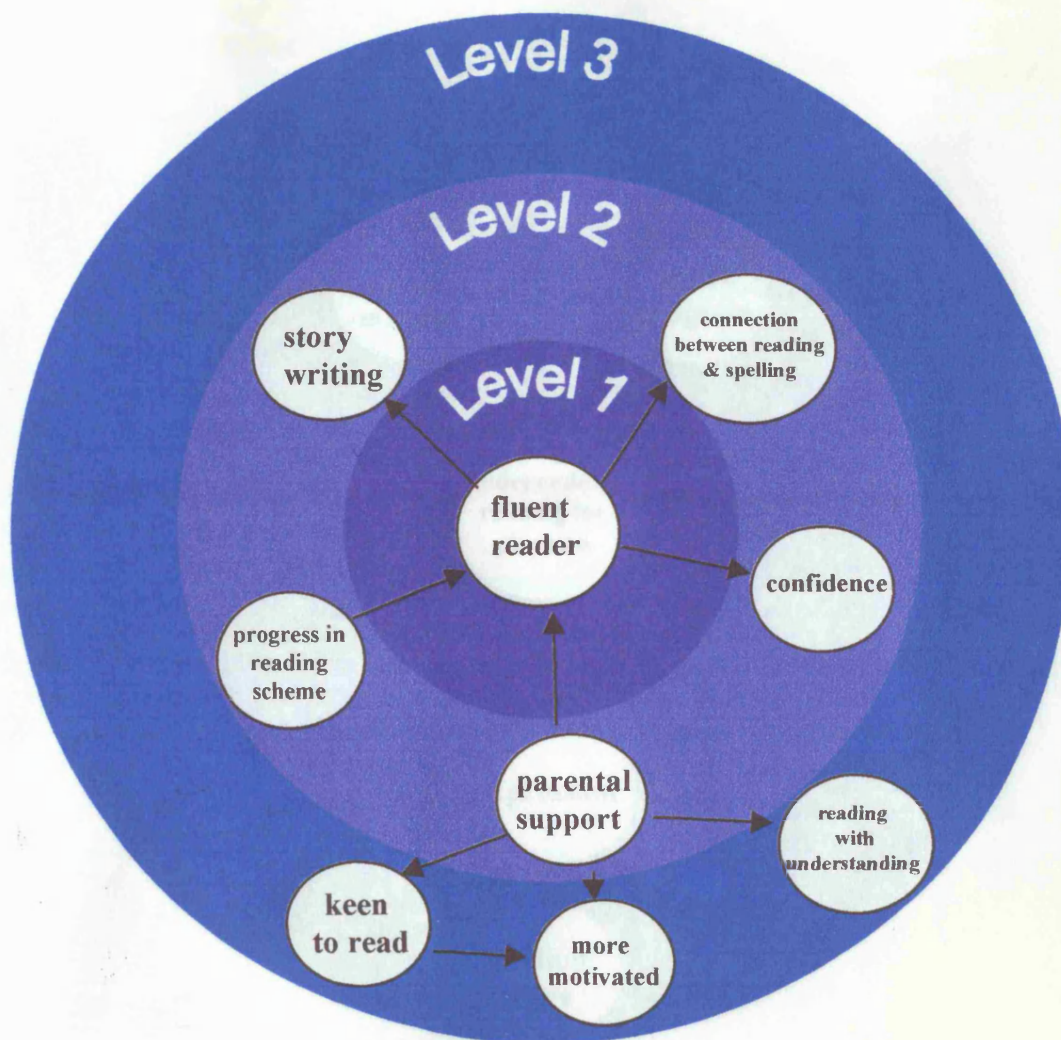
nodes	9	
links	10	
chunks	2	
total depth	1 x 1	1
	2 x 4	8
	3 x 4	12 = 21

Miss GA T9 24 May 1995



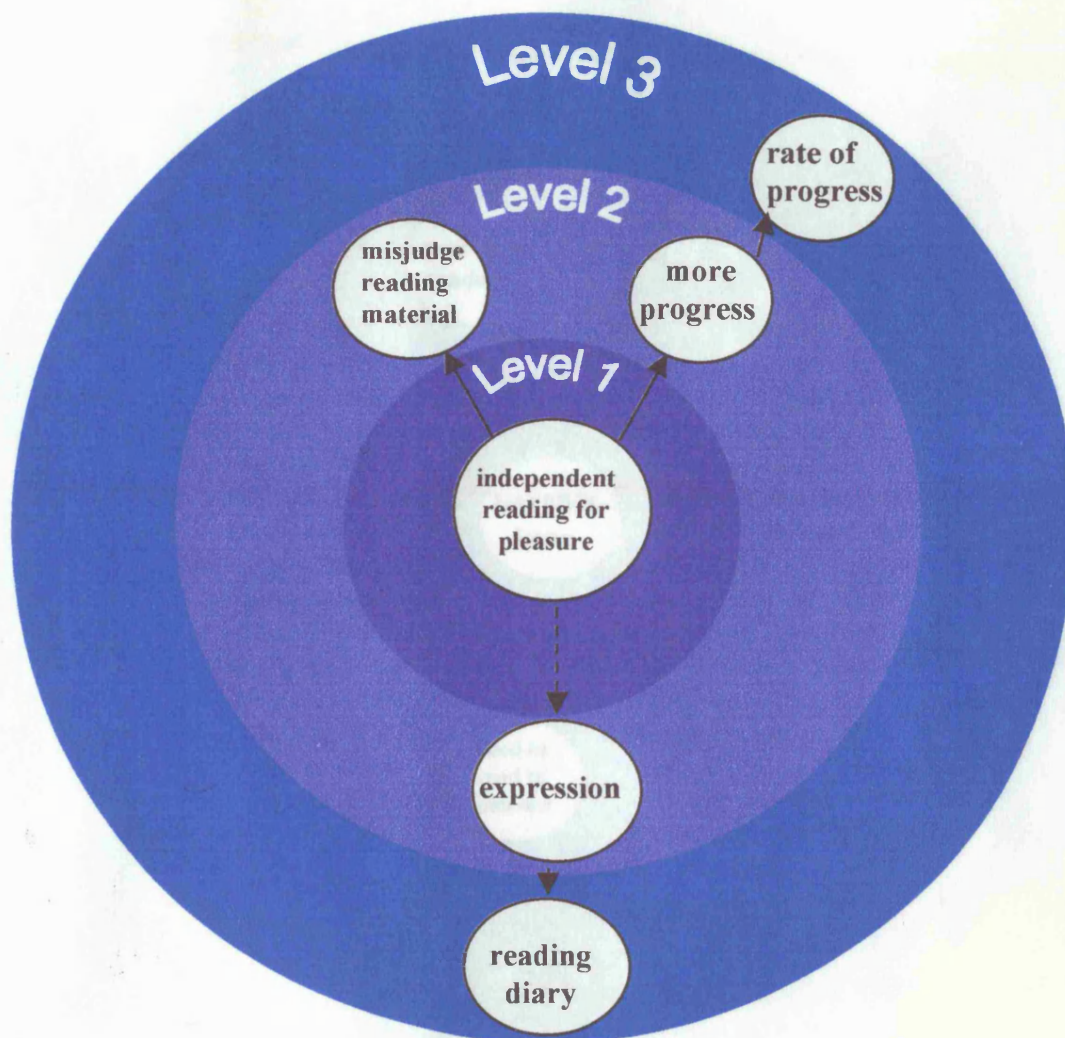
nodes	7	
links	8	
chunks	3	
total depth	1 x 1	1
	2 x 4	8
	3 x 2	6 = 15

Mrs YN T10 7 June 1995



nodes	9	
links	9	
chunks	2	
total depth	1 x 1	1
	2 x 5	10
	3 x 3	9 = 20

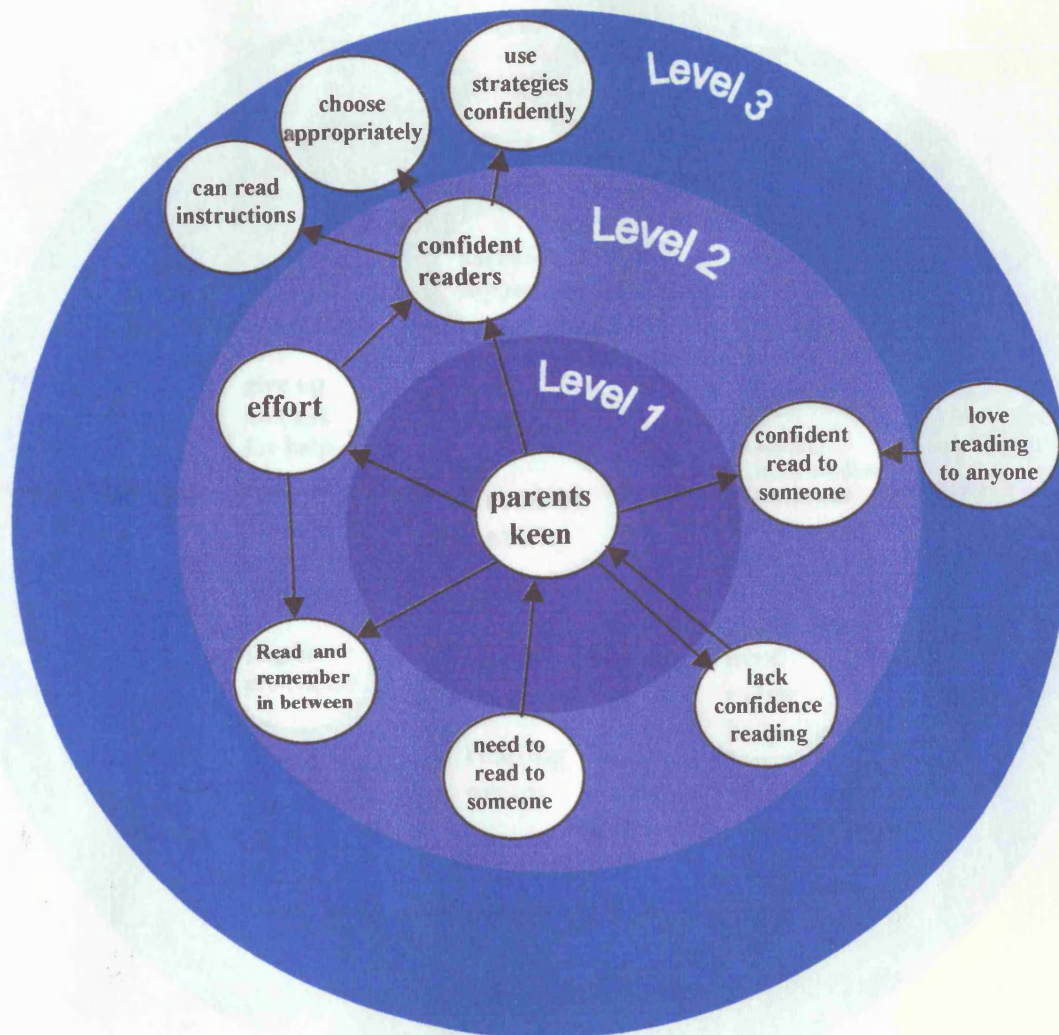
Mr TW T11 8 June 1995



←----- necessary but not sufficient

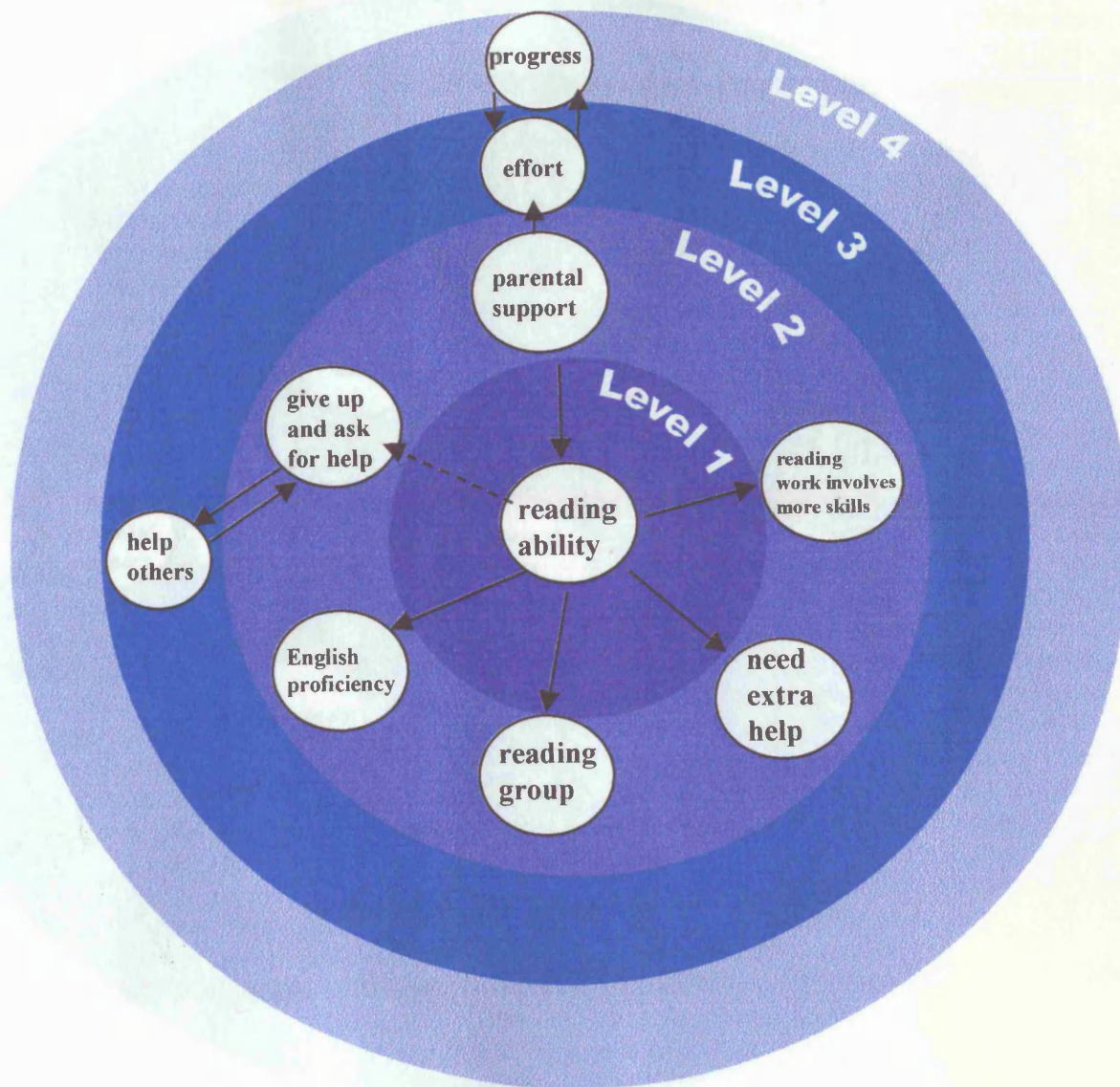
nodes	6	
links	5	
chunks	1	
total depth	1 x 1	1
	2 x 3	6
	3 x 2	6 = 13

Mrs WB T13 13 June 1995



nodes	11	
links	13	
chunks	2	
total depth	1 x 1	1
	2 x 6	12
	3 x 4	12 = 25

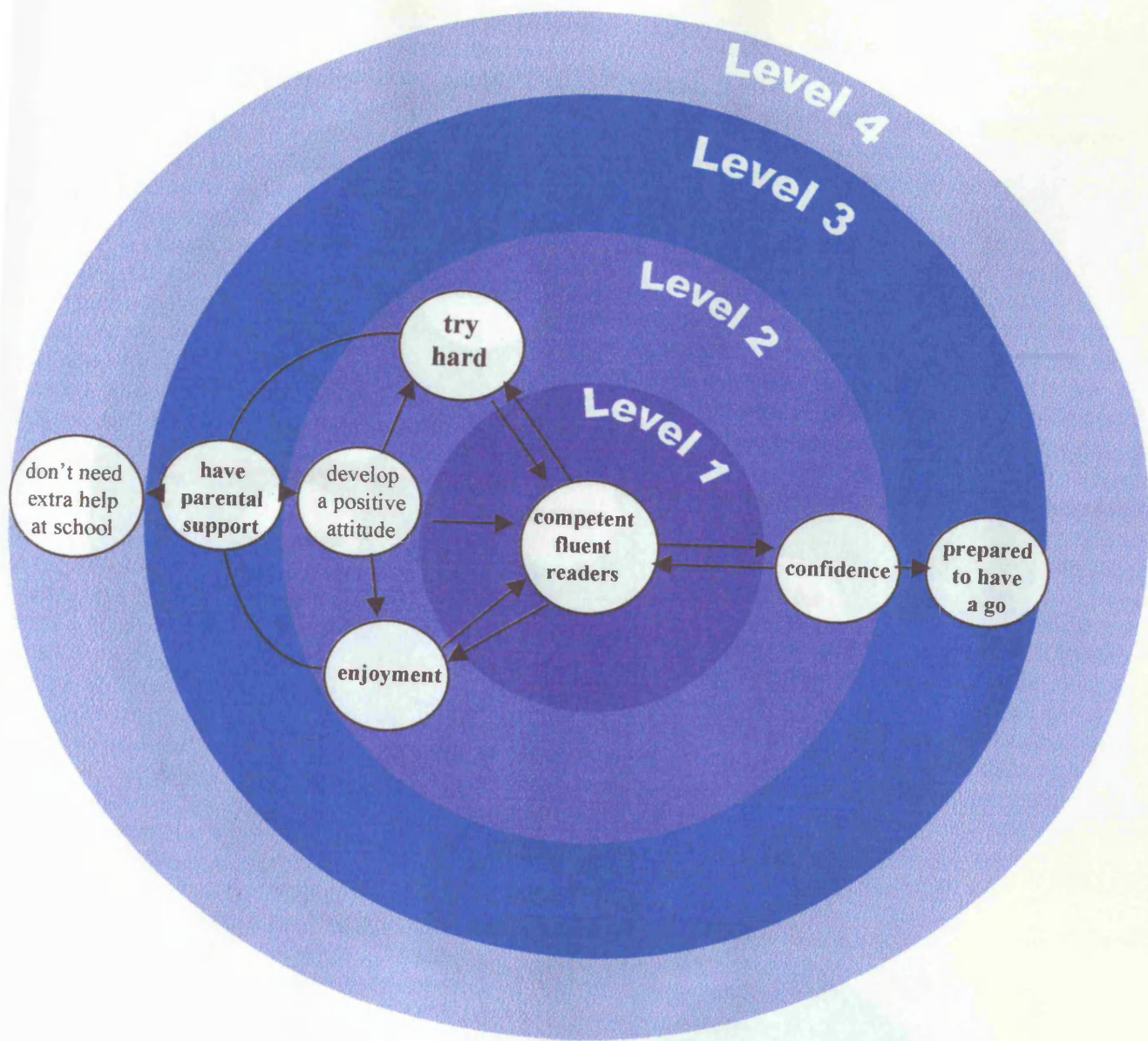
Miss PT T15 14 June 1995



less able readers don't ask for help,
or ask for help too easily

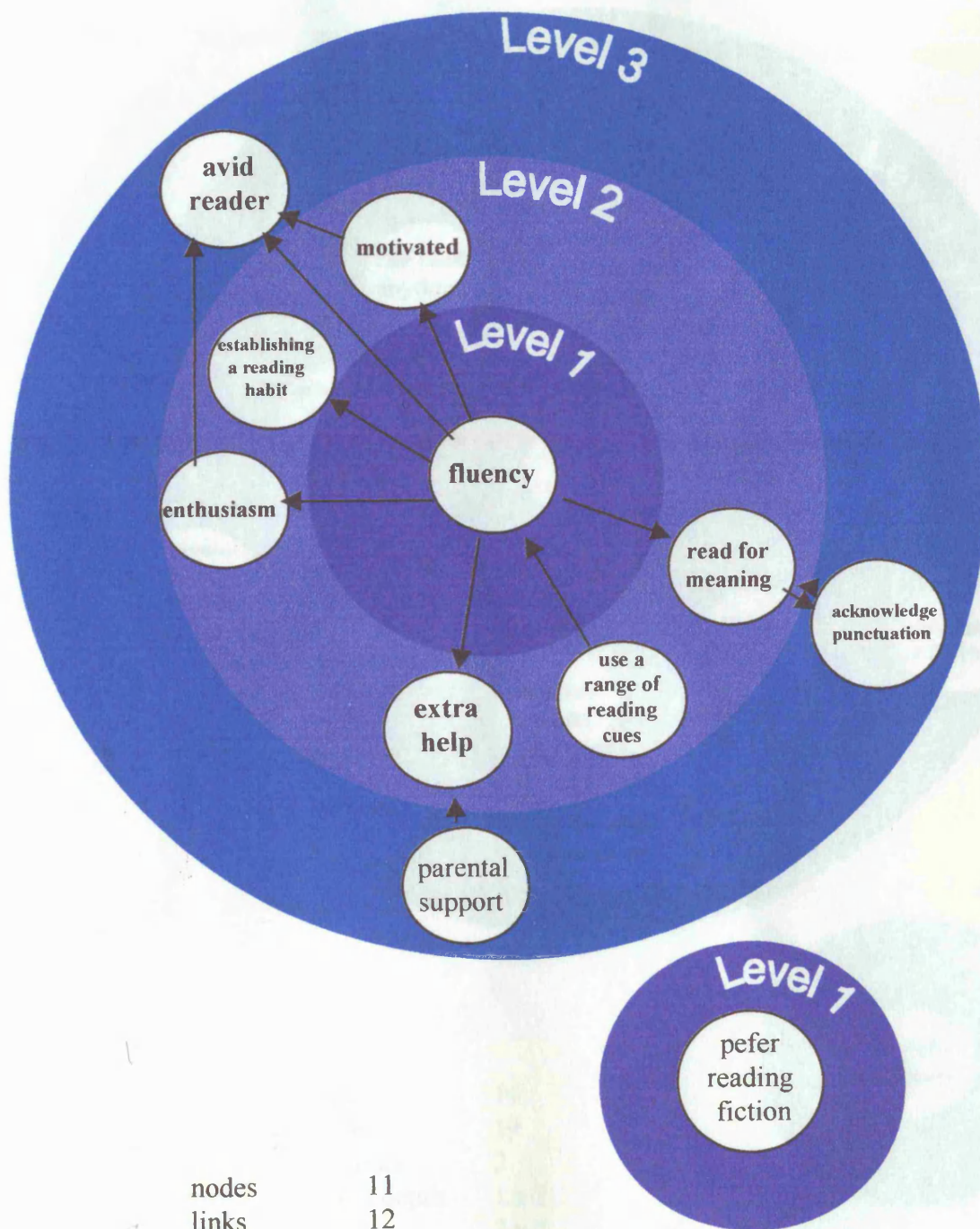
nodes	10	
links	11	
chunks	1	
total depth	1 x 1	1
	2 x 2	12
	3 x 2	6
	4 x 1	4 = 23

Miss PC T16 15 June 1995



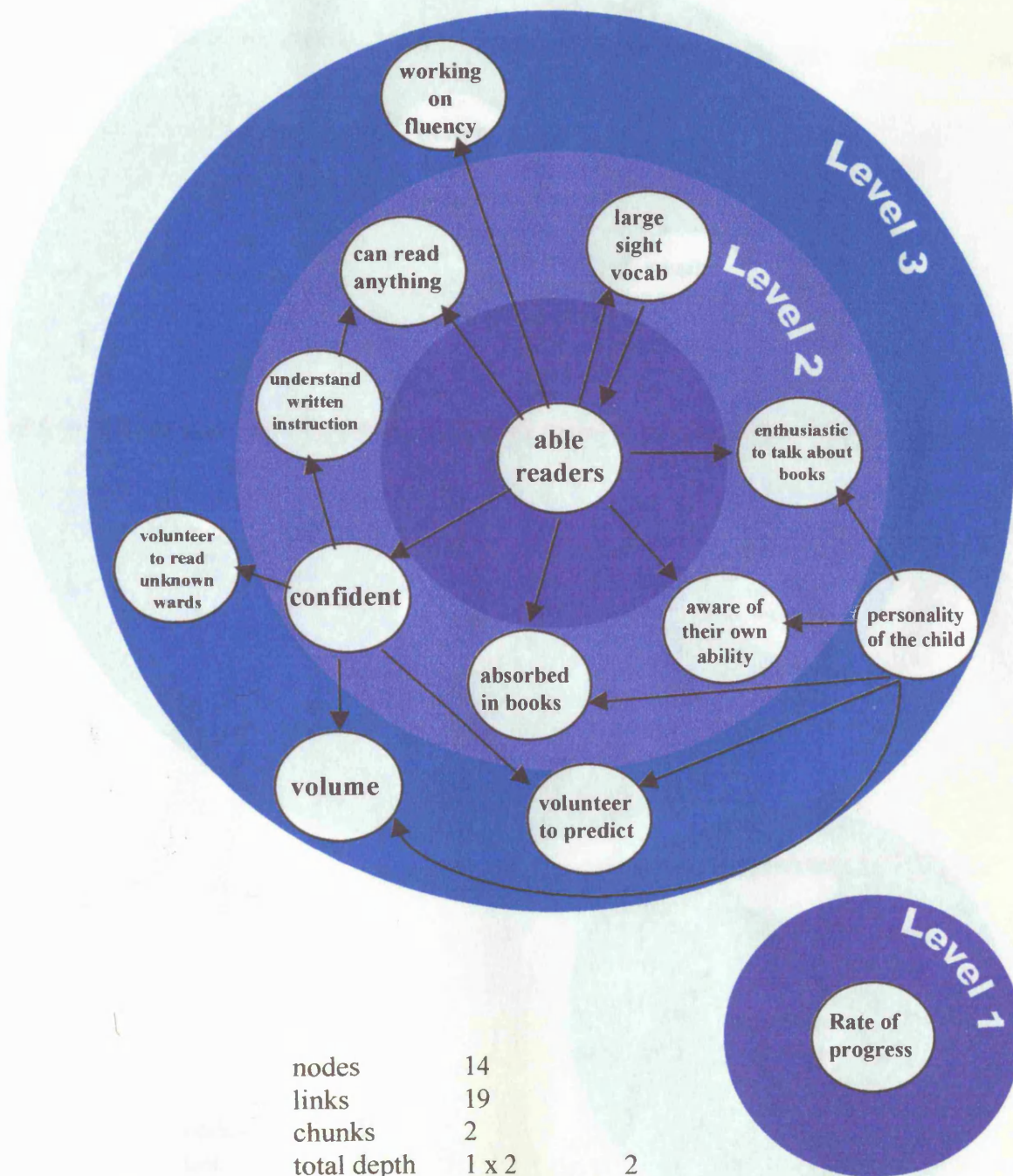
nodes	8	
links	13	
chunks	1	
total depth	1 x 1	1
	2 x 4	8
	3 x 2	6
	4 x 14	= 19

Mrs OC T18 22 June 1995



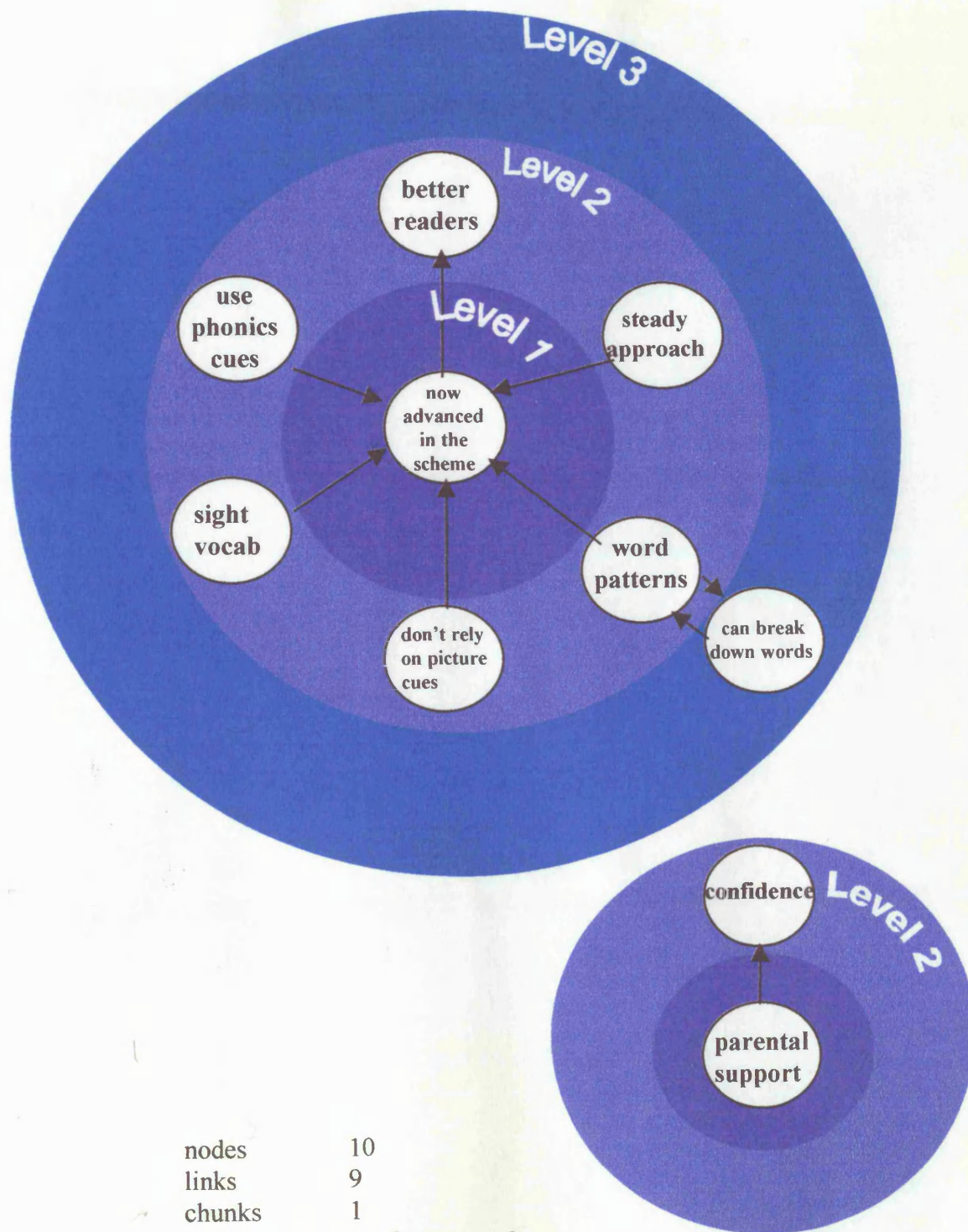
nodes	11	
links	12	
chunks	1	
total depth	1 x 2	2
	2 x 6	12
	3 x 3	9 = 23

Mrs OW T19 21 June 1995



nodes	14	
links	19	
chunks	2	
total depth	1 x 2	2
	2 x 7	14
	3 x 5	15 = 31

Mrs OT T20 22 June 1995

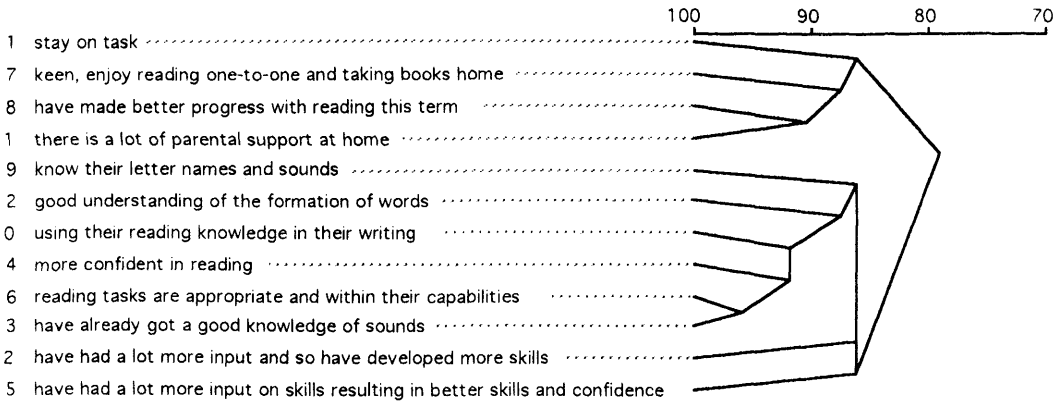
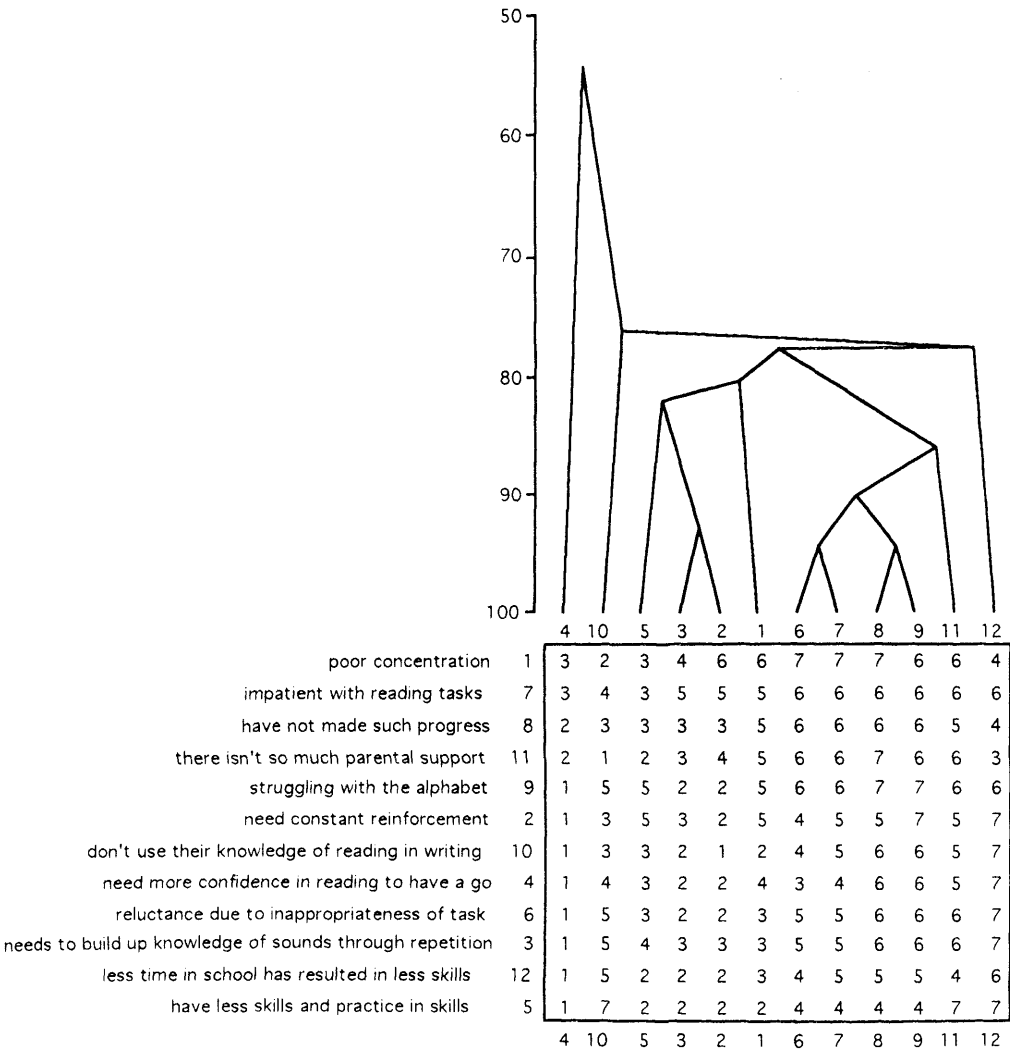


nodes	10	
links	9	
chunks	1	
total depth	1 x 2	2
	2 x 7	14
	3 x 1	3 = 18

Appendix J

Main Study Phase 1 FOCUSED Repertory Grids

FOCUS: T1 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about childrens' reading



FOCUS Mrs GM T1 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	81	79	58	81	78	78	68	68	65	74	54
E2	*	81	100	93	78	75	64	58	49	49	60	54	40
E3	*	79	93	100	79	82	62	57	47	47	67	53	47
E4	*	58	78	79	100	72	42	36	26	26	54	32	26
E5	*	81	75	82	72	100	67	64	54	54	76	60	54
E6	*	78	64	62	42	67	100	94	85	82	68	85	62
E7	*	78	58	57	36	64	94	100	90	88	68	88	68
E8	*	68	49	47	26	54	85	90	100	94	58	86	72
E9	*	68	49	47	26	54	82	88	94	100	58	86	78
E10	*	65	60	67	54	76	68	68	58	58	100	69	67
E11	*	74	54	53	32	60	85	88	86	86	69	100	78
E12	*	54	40	47	26	54	62	68	72	78	67	78	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	68	71	67	54	69	86	51	49	53	42	60
R2	*	68	100	86	88	75	85	76	56	44	51	51	61
R3	*	71	86	100	88	81	96	82	58	44	49	54	53
R4	*	67	88	88	100	82	92	78	57	49	47	53	54
R5	*	54	75	81	82	100	85	65	56	44	46	57	50
R6	*	69	85	96	92	85	100	81	54	43	44	50	49
R7	*	86	76	82	78	65	81	100	60	51	56	53	62
R8	*	51	56	58	57	56	54	60	100	83	82	90	78
R9	*	49	44	44	49	44	43	51	83	100	79	79	81
R10	*	53	51	49	47	46	44	56	82	79	100	72	88
R11	*	42	51	54	53	57	50	53	90	79	72	100	71
R12	*	60	61	53	54	50	49	62	78	81	88	71	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	42	54	54	56	60	53	47	85	74	67	86	62
R2	*	54	50	56	54	56	54	60	83	86	88	74	83
R3	*	54	56	50	54	47	46	60	83	86	88	76	86
R4	*	56	54	54	53	49	50	61	82	82	92	72	88
R5	*	60	56	47	49	44	43	57	67	72	82	62	86
R6	*	53	54	46	50	43	42	56	82	88	92	75	90
R7	*	47	60	60	61	57	56	53	88	82	75	83	74
R8	*	85	83	83	82	67	82	88	56	50	51	49	61
R9	*	74	86	86	82	72	88	82	50	33	46	46	50
R10	*	67	88	88	92	82	92	75	51	46	42	47	51
R11	*	86	74	76	72	62	75	83	49	46	47	42	57
R12	*	62	83	86	88	86	90	74	61	50	51	57	56

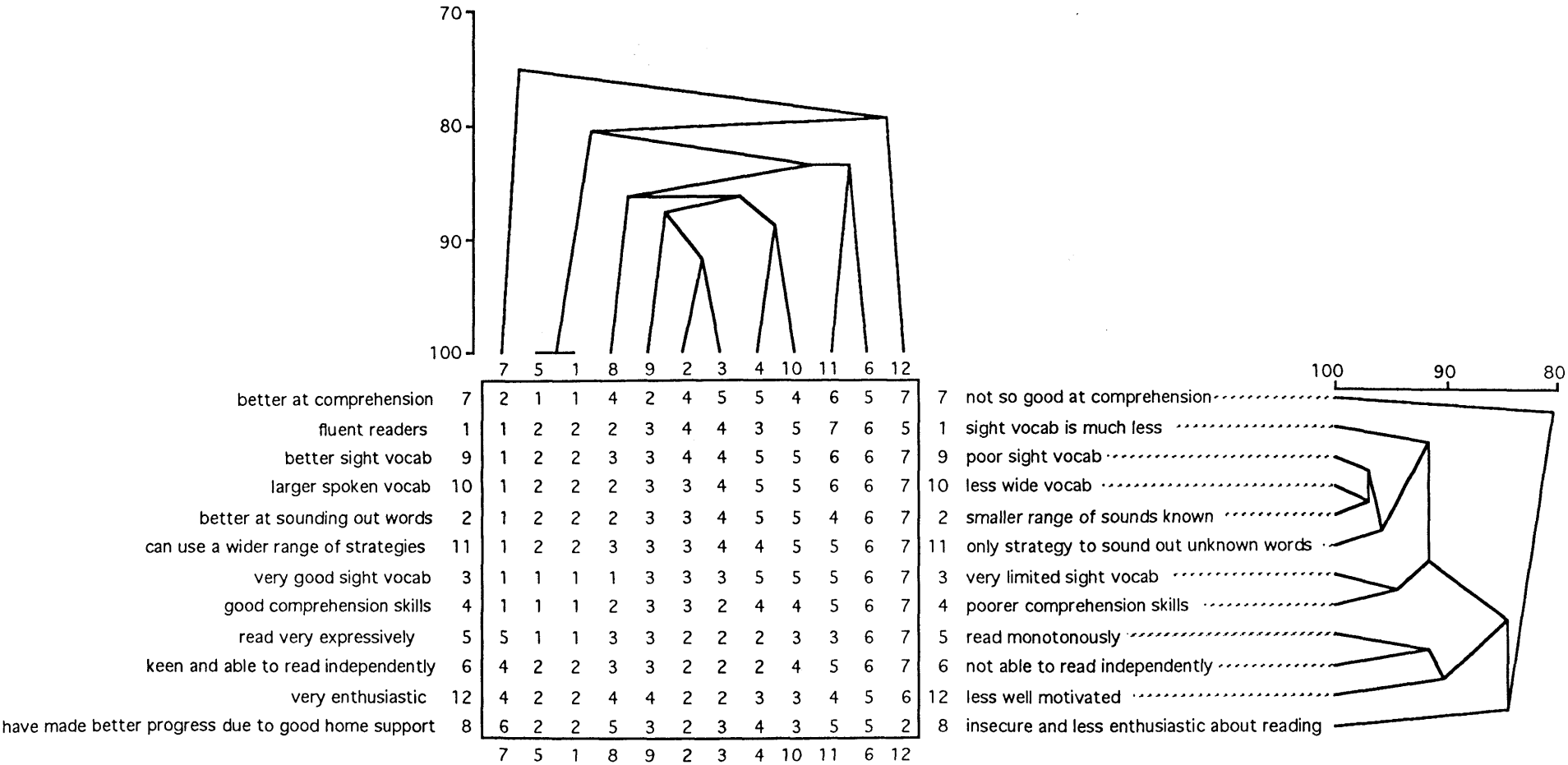
Element Links

E6 linked to E7 at 94.4
 E8 linked to E9 at 94.4
 E2 linked to E3 at 93.1
 E7 linked to E8 at 90.3
 E9 linked to E11 at 86.1
 E3 linked to E5 at 81.9
 E1 linked to E2 at 80.6
 E1 linked to E6 at 77.8
 E11 linked to E12 at 77.8
 E5 linked to E10 at 76.4
 E4 linked to E10 at 54.2

Construct Links

R3	linked to	R6	at	95.8
R4	linked to	R6	at	91.7
R4	linked to	L10	at	91.7
L8	linked to	L11	at	90.3
R2	linked to	L10	at	87.5
R7	linked to	L8	at	87.5
R1	linked to	R7	at	86.1
R2	linked to	L9	at	86.1
R3	linked to	L12	at	86.1
R5	linked to	L12	at	86.1
L9	linked to	L11	at	79.2

FOCUS: T2 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about childrens' reading



FOCUS Mrs BB T2 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	79	74	62	100	32	75	81	78	57	43	22
E2	*	79	100	92	81	79	53	60	79	88	78	64	43
E3	*	74	92	100	86	74	58	57	76	82	81	69	46
E4	*	62	81	86	100	62	69	51	71	76	89	78	54
E5	*	100	79	74	62	100	32	75	81	78	57	43	22
E6	*	32	53	58	69	32	100	40	51	54	75	83	79
E7	*	75	60	57	51	75	40	100	81	72	51	46	22
E8	*	81	79	76	71	81	51	81	100	86	68	62	33
E9	*	78	88	82	76	78	54	72	86	100	76	65	42
E10	*	57	78	81	89	57	75	51	68	76	100	83	62
E11	*	43	64	69	78	43	83	46	62	65	83	100	65
E12	*	22	43	46	54	22	79	22	33	42	62	65	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	89	85	85	72	81	81	72	92	92	90	60
R2	*	89	100	93	90	78	83	83	72	94	97	96	62
R3	*	85	93	100	94	79	82	85	71	90	93	92	56
R4	*	85	90	94	100	85	88	85	74	88	90	92	53
R5	*	72	78	79	85	100	92	75	78	75	75	79	51
R6	*	81	83	82	88	92	100	78	81	83	83	88	57
R7	*	81	83	85	85	75	78	100	72	89	86	85	62
R8	*	72	72	71	74	78	81	72	100	72	72	76	65
R9	*	92	94	90	88	75	83	89	72	100	97	96	62
R10	*	92	97	93	90	75	83	86	72	97	100	96	60
R11	*	90	96	92	92	79	88	85	76	96	96	100	61
R12	*	60	62	56	53	51	57	62	65	62	60	61	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	50	53	46	46	53	50	53	67	53	50	51	76
R2	*	53	50	43	46	53	53	50	69	50	47	51	79
R3	*	46	43	36	39	49	46	46	62	43	40	44	75
R4	*	46	46	39	42	46	46	49	62	46	43	47	81
R5	*	53	53	49	46	39	47	56	58	56	53	54	88
R6	*	50	53	46	46	47	50	56	61	53	50	51	90
R7	*	53	50	46	49	56	56	50	67	50	47	51	76
R8	*	67	69	62	62	58	61	67	56	69	67	71	85
R9	*	53	50	43	46	56	53	50	69	50	47	51	76
R10	*	50	47	40	43	53	50	47	67	47	44	49	76
R11	*	51	51	44	47	54	51	51	71	51	49	53	81
R12	*	76	79	75	81	88	90	76	85	76	76	81	64

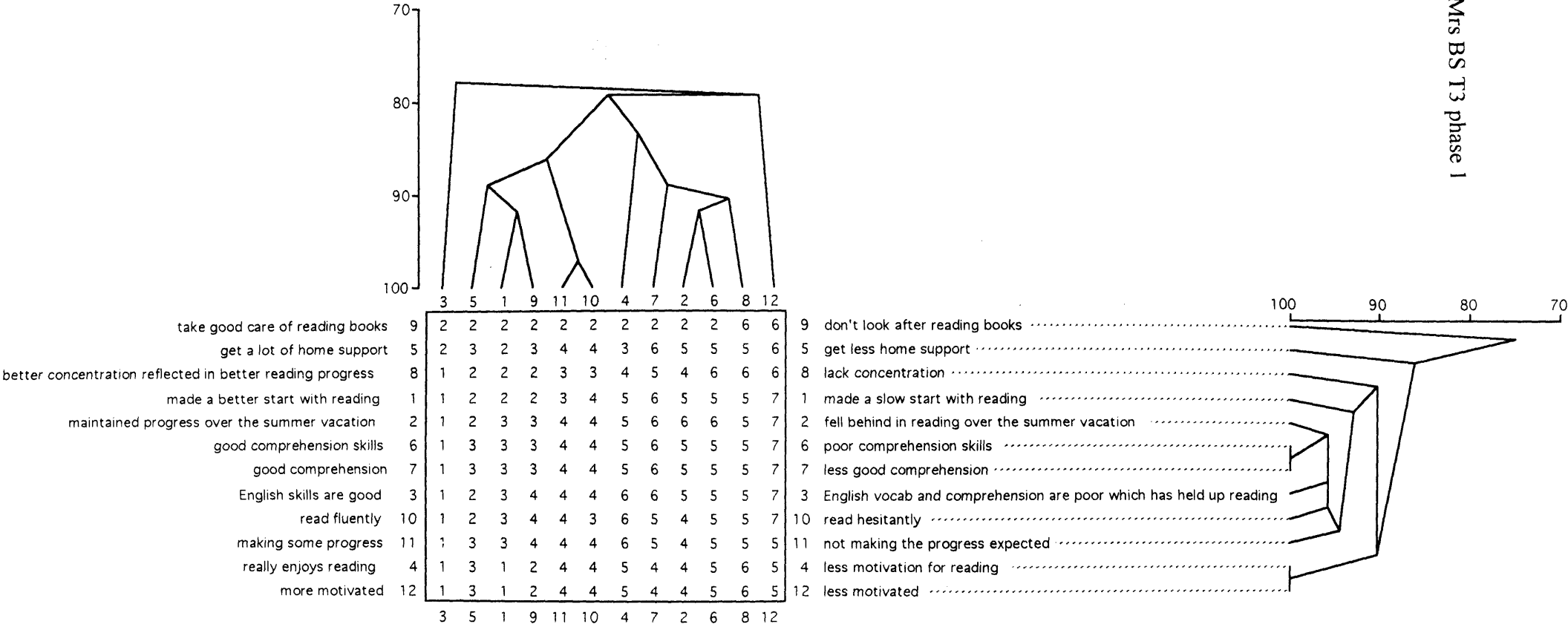
Element Links

E1 linked to E5 at 100.0
 E2 linked to E3 at 91.7
 E4 linked to E10 at 88.9
 E2 linked to E9 at 87.5
 E3 linked to E4 at 86.1
 E8 linked to E9 at 86.1
 E6 linked to E11 at 83.3
 E10 linked to E11 at 83.3
 E1 linked to E8 at 80.6
 E6 linked to E12 at 79.2
 E5 linked to E7 at 75.0

Construct Links

R2 linked to R10 at 97.2
R9 linked to R10 at 97.2
R2 linked to R11 at 95.8
R3 linked to R4 at 94.4
R1 linked to R9 at 91.7
R3 linked to R11 at 91.7
R5 linked to R6 at 91.7
R6 linked to L12 at 90.3
R4 linked to R5 at 84.7
R8 linked to L12 at 84.7
R1 linked to R7 at 80.6

FOCUS: T3 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about childrens' reading



FOCUS Mrs BS T3 phase 1

FOCUS Mrs BS T3 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	65	81	60	89	57	54	50	92	78	78	35
E2	*	65	100	46	86	68	92	89	82	74	88	88	69
E3	*	81	46	100	40	78	38	35	31	72	58	58	15
E4	*	60	86	40	100	62	89	83	82	68	79	79	72
E5	*	89	68	78	62	100	60	57	53	89	81	81	38
E6	*	57	92	38	89	60	100	89	90	65	79	79	78
E7	*	54	89	35	83	57	89	100	79	62	76	76	81
E8	*	50	82	31	82	53	90	79	100	58	72	72	79
E9	*	92	74	72	68	89	65	62	58	100	83	86	43
E10	*	78	88	58	79	81	79	76	72	83	100	97	57
E11	*	78	88	58	79	81	79	76	72	86	97	100	57
E12	*	35	69	15	72	38	78	81	79	43	57	57	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	49	93	54	57	53	94	90	54	53	86	88
R2	*	49	100	53	83	89	96	54	50	67	90	60	56
R3	*	93	53	100	58	61	57	96	83	61	57	93	83
R4	*	54	83	58	100	86	88	60	56	75	85	65	61
R5	*	57	89	61	86	100	93	62	56	75	85	68	64
R6	*	53	96	57	88	93	100	58	54	68	92	64	60
R7	*	94	54	96	60	62	58	100	85	60	58	92	88
R8	*	90	50	83	56	56	54	85	100	50	54	85	89
R9	*	54	67	61	75	75	68	60	50	100	71	62	53
R10	*	53	90	57	85	85	92	58	54	71	100	64	60
R11	*	86	60	93	65	68	64	92	85	62	64	100	90
R12	*	88	56	83	61	64	60	88	89	53	60	90	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	47	93	51	88	90	94	53	49	74	89	58	54
R2	*	93	50	94	56	58	54	96	86	61	54	88	83
R3	*	51	94	56	83	89	96	57	53	67	96	62	58
R4	*	88	56	83	61	64	60	88	89	53	60	90	100
R5	*	90	58	89	64	61	62	93	86	58	62	88	86
R6	*	94	54	96	60	62	58	100	85	60	58	92	88
R7	*	53	96	57	88	93	100	58	54	68	92	64	60
R8	*	49	86	53	89	86	85	54	50	81	88	60	56
R9	*	74	61	67	53	58	60	68	81	33	57	68	75
R10	*	89	54	96	60	62	58	92	88	57	58	94	85
R11	*	58	88	62	90	88	92	64	60	68	94	69	65
R12	*	54	83	58	100	86	88	60	56	75	85	65	61

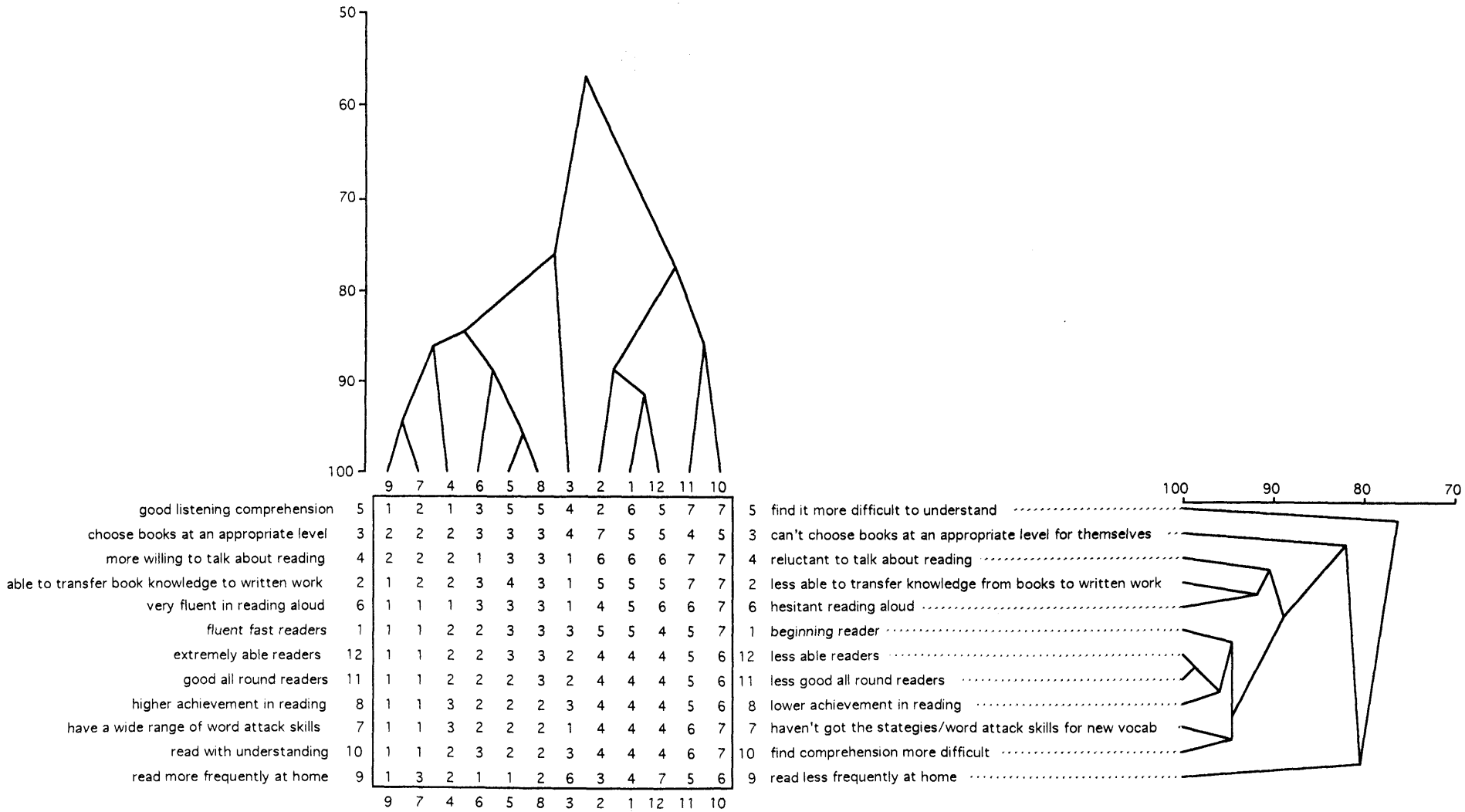
Element Links

E10 linked to E11 at 97.2
 E1 linked to E9 at 91.7
 E2 linked to E6 at 91.7
 E6 linked to E8 at 90.3
 E1 linked to E5 at 88.9
 E2 linked to E7 at 88.9
 E9 linked to E11 at 86.1
 E4 linked to E7 at 83.3
 E4 linked to E10 at 79.2
 E8 linked to E12 at 79.2
 E3 linked to E5 at 77.8

Construct Links

L4 linked to R12 at 100.0
L6 linked to R7 at 100.0
L2 linked to L6 at 95.8
R3 linked to R7 at 95.8
R3 linked to L10 at 95.8
L10 linked to R11 at 94.4
R1 linked to L2 at 93.1
R1 linked to R8 at 90.3
L4 linked to R11 at 90.3
L5 linked to R8 at 86.1
L5 linked to L9 at 75.0

FOCUS: T4 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about childrens' reading



FOCUS Miss RS T4 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	89	60	56	68	60	47	69	42	69	81	92
E2	*	89	100	57	61	65	62	53	67	47	58	69	83
E3	*	60	57	100	79	75	81	76	76	74	35	46	62
E4	*	56	61	79	100	79	85	86	81	86	25	39	53
E5	*	68	65	75	79	100	89	74	96	74	38	51	65
E6	*	60	62	81	85	89	100	79	88	79	29	43	57
E7	*	47	53	76	86	74	79	100	75	94	17	31	44
E8	*	69	67	76	81	96	88	75	100	72	39	53	67
E9	*	42	47	74	86	74	79	94	72	100	11	25	39
E10	*	69	58	35	25	38	29	17	39	11	100	86	69
E11	*	81	69	46	39	51	43	31	53	25	86	100	78
E12	*	92	83	62	53	65	57	44	67	39	69	78	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	44	53	85	79	89	89	50	78	92	93	50
R2	*	44	100	83	35	46	39	42	81	47	44	46	86
R3	*	53	83	100	43	60	47	50	81	50	53	54	83
R4	*	85	35	43	100	78	88	82	40	74	79	81	40
R5	*	79	46	60	78	100	82	74	51	71	79	75	51
R6	*	89	39	47	88	82	100	89	44	75	89	88	44
R7	*	89	42	50	82	74	89	100	47	78	94	93	47
R8	*	50	81	81	40	51	44	47	100	47	50	51	94
R9	*	78	47	50	74	71	75	78	47	100	81	82	50
R10	*	92	44	53	79	79	89	94	50	81	100	93	50
R11	*	93	46	54	81	75	88	93	51	82	93	100	51
R12	*	50	86	83	40	51	44	47	94	50	50	51	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	47	89	86	38	51	42	44	92	47	47	49	94
R2	*	89	42	50	90	85	92	86	47	72	86	85	47
R3	*	86	50	58	82	76	81	75	56	75	81	82	56
R4	*	38	90	82	28	44	32	35	76	40	38	39	82
R5	*	51	85	76	44	39	43	46	74	43	49	50	76
R6	*	42	92	81	32	43	36	39	83	42	42	43	89
R7	*	44	86	75	35	46	39	42	94	44	44	46	92
R8	*	92	47	56	76	74	83	94	53	83	94	96	53
R9	*	47	72	75	40	43	42	44	83	36	44	49	81
R10	*	47	86	81	38	49	42	44	94	44	47	49	92
R11	*	49	85	82	39	50	43	46	96	49	49	50	99
R12	*	94	47	56	82	76	89	92	53	81	92	99	53

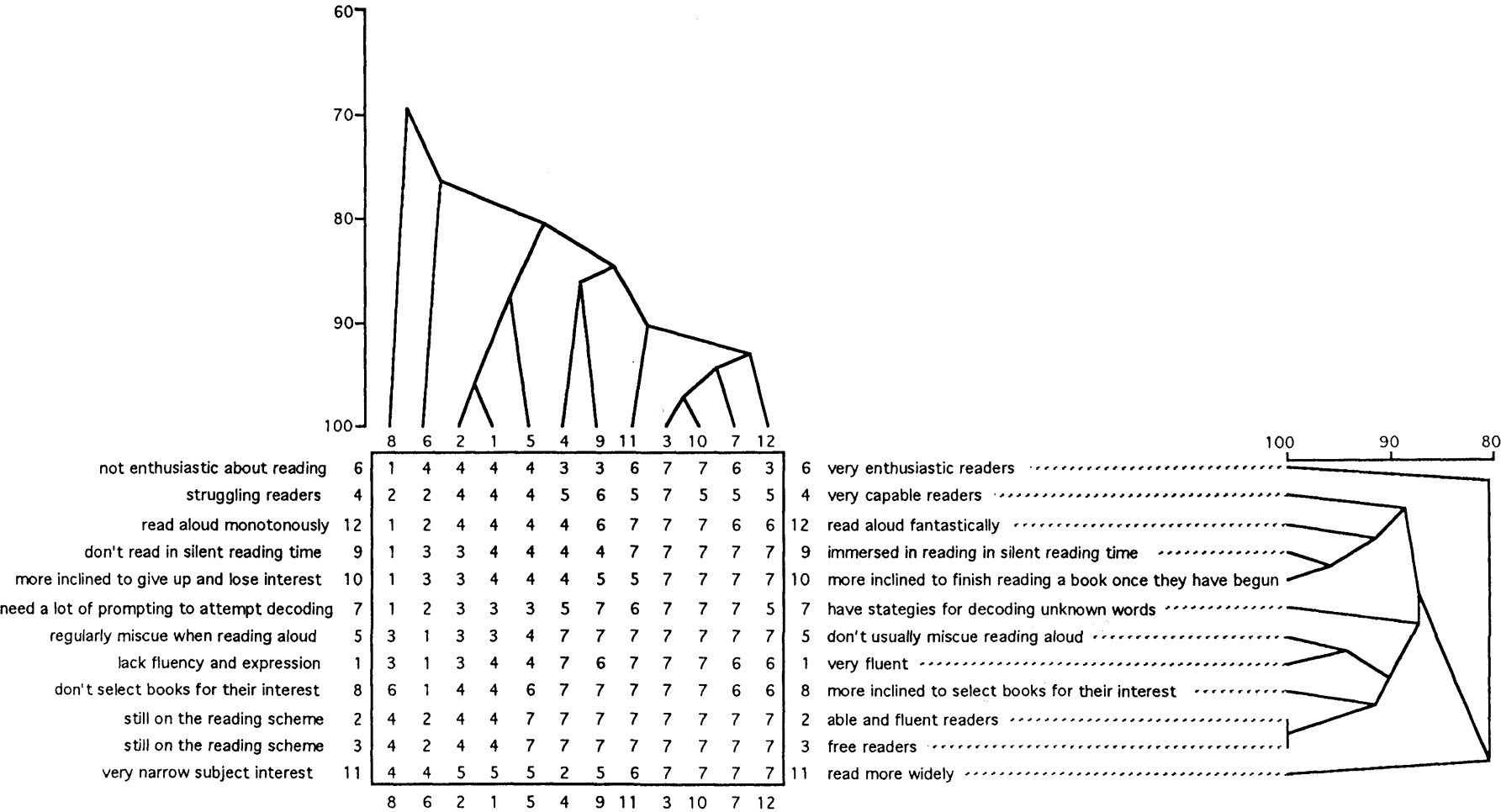
Element Links

E5 linked to E8 at 95.8
 E7 linked to E9 at 94.4
 E1 linked to E12 at 91.7
 E1 linked to E2 at 88.9
 E5 linked to E6 at 88.9
 E4 linked to E7 at 86.1
 E10 linked to E11 at 86.1
 E4 linked to E6 at 84.7
 E11 linked to E12 at 77.8
 E3 linked to E8 at 76.4
 E2 linked to E3 at 56.9

Construct Links

R11 linked to L12 at	98.6
L8 linked to R11 at	95.8
R1 linked to L12 at	94.4
R7 linked to R10 at	94.4
R7 linked to L8 at	94.4
L2 linked to R6 at	91.7
L2 linked to R4 at	90.3
R1 linked to R6 at	88.9
L3 linked to R4 at	81.9
R9 linked to R10 at	80.6
L3 linked to R5 at	76.4

FOCUS: T5 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mr RT T5 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	96	49	68	88	72	57	72	65	51	58	61
E2	*	96	100	44	64	83	76	53	76	61	47	54	57
E3	*	49	44	100	69	61	21	92	26	81	97	90	85
E4	*	68	64	69	100	81	43	72	51	86	72	79	79
E5	*	88	83	61	81	100	60	69	65	78	64	71	74
E6	*	72	76	21	43	60	100	29	69	38	24	31	33
E7	*	57	53	92	72	69	29	100	35	83	94	90	93
E8	*	72	76	26	51	65	69	35	100	46	29	36	42
E9	*	65	61	81	86	78	38	83	46	100	81	85	85
E10	*	51	47	97	72	64	24	94	29	81	100	93	88
E11	*	58	54	90	79	71	31	90	36	85	93	100	86
E12	*	61	57	85	79	74	33	93	42	85	88	86	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	88	88	49	31	54	85	90	40	83	76	90
R2	*	88	100	100	44	26	50	81	92	36	79	81	83
R3	*	88	100	100	44	26	50	81	92	36	79	81	83
R4	*	49	44	44	100	79	81	47	50	81	54	56	53
R5	*	31	26	26	79	100	71	29	29	85	36	46	35
R6	*	54	50	50	81	71	100	53	56	86	57	56	56
R7	*	85	81	81	47	29	53	100	78	39	88	75	89
R8	*	90	92	92	50	29	56	78	100	42	74	75	83
R9	*	40	36	36	81	85	86	39	42	100	46	47	44
R10	*	83	79	79	54	36	57	88	74	46	100	85	90
R11	*	76	81	81	56	46	56	75	75	47	85	100	81
R12	*	90	83	83	53	35	56	89	83	44	90	81	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	36	32	32	85	94	76	35	35	85	42	49	40
R2	*	32	28	28	78	90	69	33	28	81	38	42	36
R3	*	32	28	28	78	90	69	33	28	81	38	42	36
R4	*	85	78	78	61	43	67	86	78	53	85	75	89
R5	*	94	90	90	43	25	49	88	88	35	83	76	85
R6	*	76	69	69	67	49	56	81	69	53	85	81	86
R7	*	35	33	33	86	88	81	33	39	86	40	50	39
R8	*	35	28	28	78	88	69	39	28	75	43	42	42
R9	*	85	81	81	53	35	53	86	75	44	96	83	92
R10	*	42	38	38	85	83	85	40	43	96	47	49	46
R11	*	49	42	42	75	76	81	50	42	83	49	44	44
R12	*	40	36	36	89	85	86	39	42	92	46	44	44

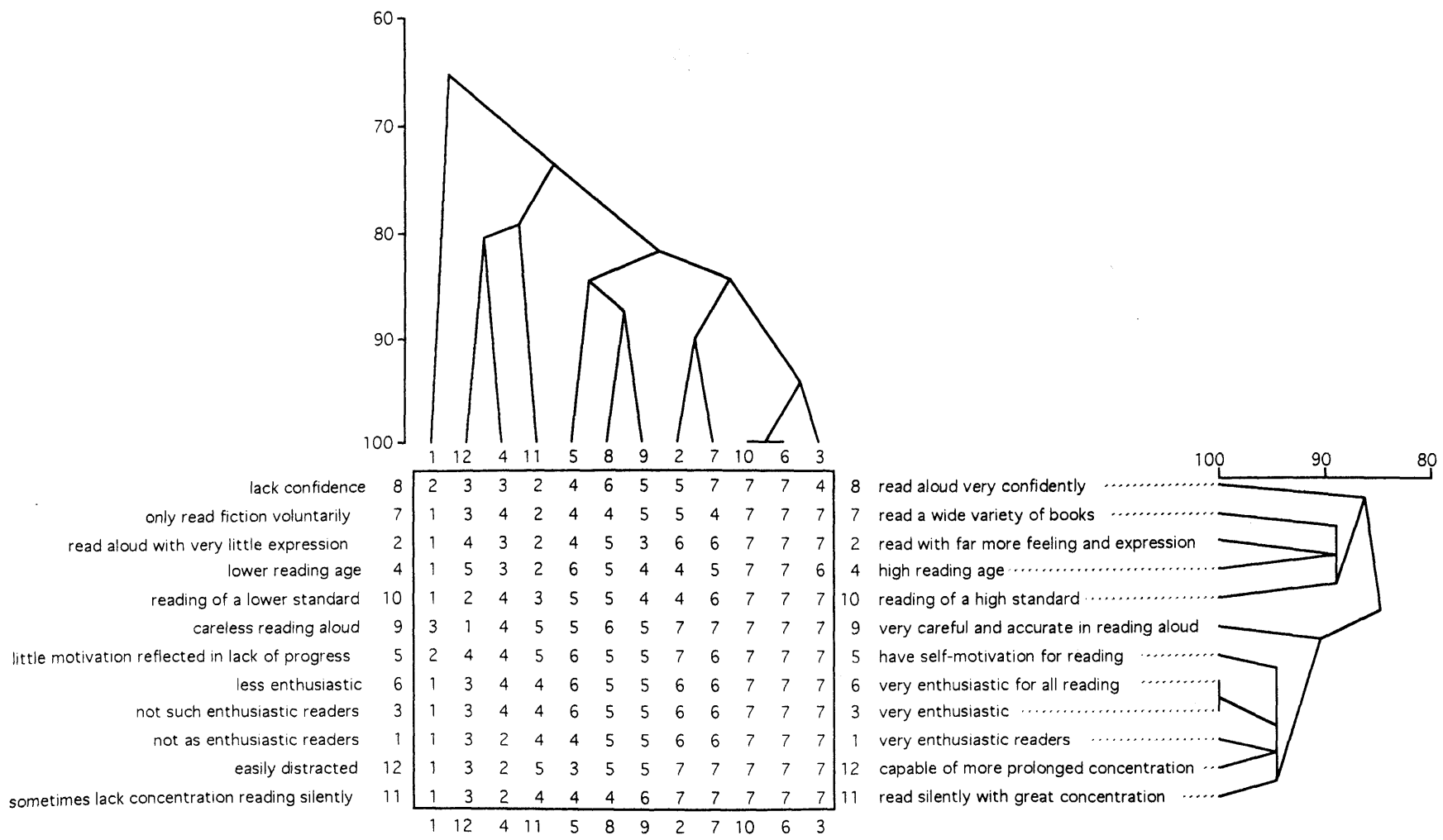
Element Links

E3 linked to E10 at 97.2
 E1 linked to E2 at 95.8
 E7 linked to E10 at 94.4
 E7 linked to E12 at 93.1
 E3 linked to E11 at 90.3
 E1 linked to E5 at 87.5
 E4 linked to E9 at 86.1
 E9 linked to E11 at 84.7
 E4 linked to E5 at 80.6
 E2 linked to E6 at 76.4
 E6 linked to E8 at 69.4

Construct Links

L2 linked to L3 at 100.0
R9 linked to L10 at 95.8
L1 linked to R5 at 94.4
L2 linked to L8 at 91.7
R9 linked to L12 at 91.7
L1 linked to L8 at 90.3
R4 linked to L12 at 88.9
R5 linked to L7 at 87.5
L7 linked to L10 at 87.5
L3 linked to L11 at 80.6
R4 linked to R6 at 80.6

FOCUS: T6 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about childrens' reading



FOCUS Miss RR T6 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	25	11	68	43	6	21	39	43	6	64	65
E2	*	25	100	83	57	74	81	90	78	82	81	61	51
E3	*	11	83	100	43	68	94	82	67	65	94	47	40
E4	*	68	57	43	100	75	38	53	71	75	38	79	81
E5	*	43	74	68	75	100	62	75	85	81	62	74	72
E6	*	6	81	94	38	62	100	85	67	62	100	42	35
E7	*	21	90	82	53	75	85	100	82	75	85	57	50
E8	*	39	78	67	71	85	67	82	100	88	67	75	68
E9	*	43	82	65	75	81	62	75	88	100	62	79	67
E10	*	6	81	94	38	62	100	85	67	62	100	42	35
E11	*	64	61	47	79	74	42	57	75	79	42	100	74
E12	*	65	51	40	81	72	35	50	68	67	35	74	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	44	42	83	89	42	89	86	85	89	39	94
R2	*	44	100	89	44	47	89	50	47	43	44	86	42
R3	*	42	89	100	47	42	100	47	44	38	44	89	39
R4	*	83	44	47	100	83	47	86	83	74	89	44	78
R5	*	89	47	42	83	100	42	83	81	90	86	39	89
R6	*	42	89	100	47	42	100	47	44	38	44	89	39
R7	*	89	50	47	86	83	47	100	86	79	89	44	83
R8	*	86	47	44	83	81	44	86	100	82	83	42	83
R9	*	85	43	38	74	90	38	79	82	100	85	35	88
R10	*	89	44	44	89	86	44	89	83	85	100	42	83
R11	*	39	86	89	44	39	89	44	42	35	42	100	33
R12	*	94	42	39	78	89	39	83	83	88	83	33	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	42	92	94	47	42	94	47	44	38	44	94	36
R2	*	92	42	44	89	86	44	89	86	79	89	42	86
R3	*	94	44	42	86	94	42	89	83	88	92	39	89
R4	*	47	89	86	47	47	86	53	50	46	50	78	47
R5	*	42	86	94	47	42	94	50	47	38	47	86	39
R6	*	94	44	42	86	94	42	89	83	88	92	39	89
R7	*	47	89	89	53	50	89	53	50	46	50	86	44
R8	*	44	86	83	50	47	83	50	47	43	47	83	42
R9	*	38	79	88	46	38	88	46	43	33	43	85	35
R10	*	44	89	92	50	47	92	50	47	43	47	83	44
R11	*	94	42	39	78	86	39	86	83	85	83	36	94
R12	*	36	86	89	47	39	89	44	42	35	44	94	31

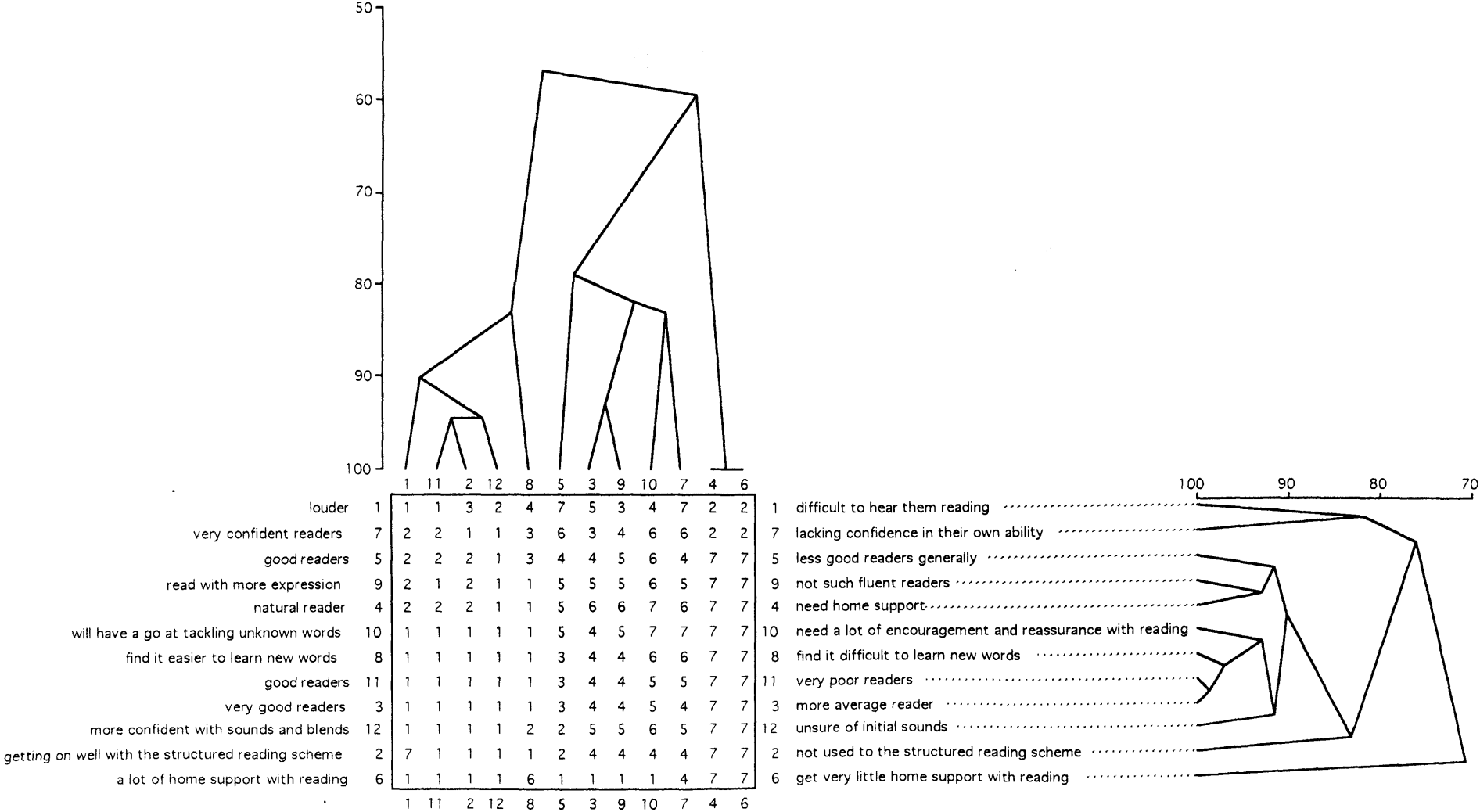
Element Links

E6 linked to E10 at 100.0
 E3 linked to E6 at 94.4
 E2 linked to E7 at 90.3
 E8 linked to E9 at 87.5
 E5 linked to E8 at 84.7
 E7 linked to E10 at 84.7
 E2 linked to E9 at 81.9
 E4 linked to E12 at 80.6
 E4 linked to E11 at 79.2
 E5 linked to E11 at 73.6
 E1 linked to E12 at 65.3

Construct Links

R3 linked to R6 at 100.0
L1 linked to L12 at 94.4
L1 linked to R3 at 94.4
L5 linked to R6 at 94.4
R11 linked to L12 at 94.4
L5 linked to L9 at 90.3
R2 linked to L4 at 88.9
R2 linked to L7 at 88.9
L4 linked to L10 at 88.9
L7 linked to L8 at 86.1
L9 linked to L10 at 84.7

FOCUS: T7 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about childrens' reading



FOCUS Mrs RP T7 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	88	54	28	53	28	35	74	53	35	90	85
E2	*	88	100	56	18	60	18	36	83	54	36	94	94
E3	*	54	56	100	54	79	54	81	53	93	78	53	50
E4	*	28	18	54	100	36	100	60	24	58	68	18	15
E5	*	53	60	79	36	100	36	76	57	78	68	57	54
E6	*	28	18	54	100	36	100	60	24	58	68	18	15
E7	*	35	36	81	60	76	60	100	42	79	83	33	31
E8	*	74	83	53	24	57	24	42	100	49	33	83	83
E9	*	53	54	93	58	78	58	79	49	100	82	51	49
E10	*	35	36	78	68	68	68	83	33	82	100	33	31
E11	*	90	94	53	18	57	18	33	83	51	33	100	94
E12	*	85	94	50	15	54	15	31	83	49	31	94	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	56	53	62	58	49	82	65	50	67	65	53
R2	*	56	100	44	74	47	38	62	85	42	78	88	39
R3	*	53	44	100	32	89	76	51	32	89	31	35	92
R4	*	62	74	32	100	35	44	72	86	26	90	83	26
R5	*	58	47	89	35	100	71	54	38	92	33	40	89
R6	*	49	38	76	44	71	100	50	31	65	35	31	74
R7	*	82	62	51	72	54	50	100	75	49	74	72	51
R8	*	65	85	32	86	38	31	75	100	32	93	97	26
R9	*	50	42	89	26	92	65	49	32	100	25	35	92
R10	*	67	78	31	90	33	35	74	93	25	100	90	25
R11	*	65	88	35	83	40	31	72	97	35	90	100	29
R12	*	53	39	92	26	89	74	51	26	92	25	29	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	42	64	64	46	64	54	43	49	67	44	51	64
R2	*	64	36	89	38	81	71	60	40	81	39	43	83
R3	*	64	89	36	82	42	32	71	96	36	89	99	31
R4	*	46	38	82	22	88	58	44	28	93	21	31	85
R5	*	64	81	42	88	47	40	76	88	39	86	88	36
R6	*	54	71	32	58	40	11	56	72	40	65	75	35
R7	*	43	60	71	44	76	56	39	47	74	40	50	71
R8	*	49	40	96	28	88	72	47	28	90	26	31	93
R9	*	67	81	36	93	39	40	74	90	31	92	90	31
R10	*	44	39	89	21	86	65	40	26	92	19	29	89
R11	*	51	43	99	31	88	75	50	31	90	29	33	93
R12	*	64	83	31	85	36	35	71	93	31	89	93	25

Element Links

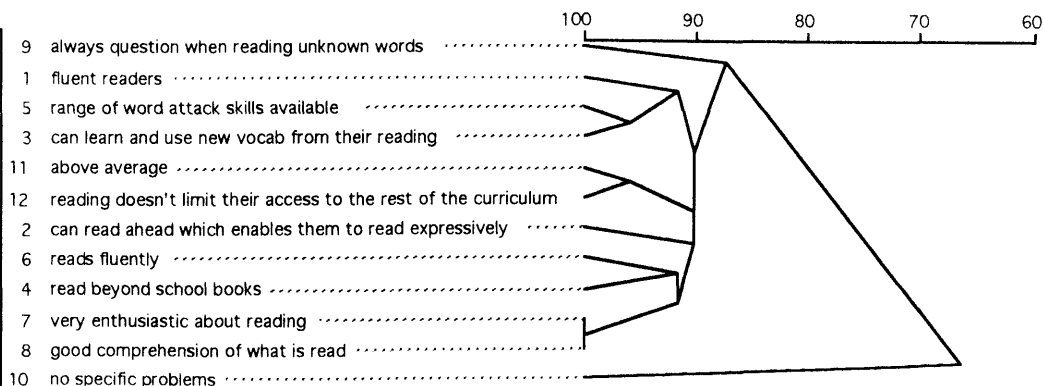
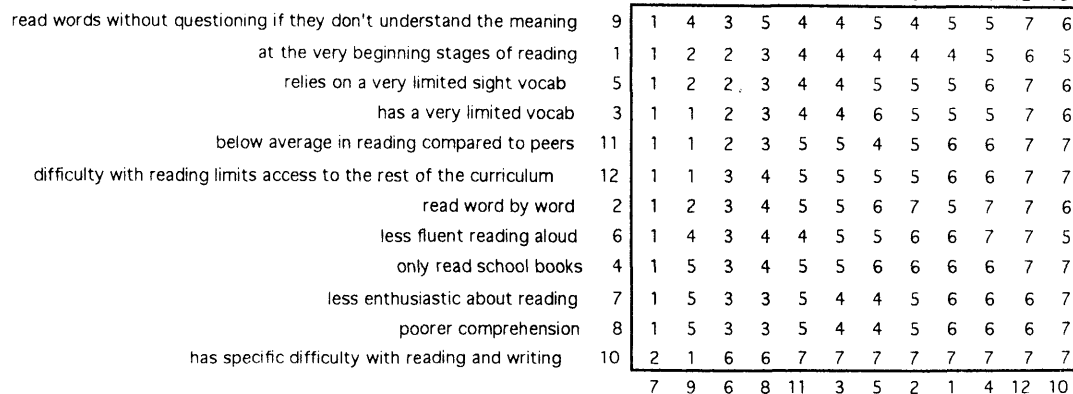
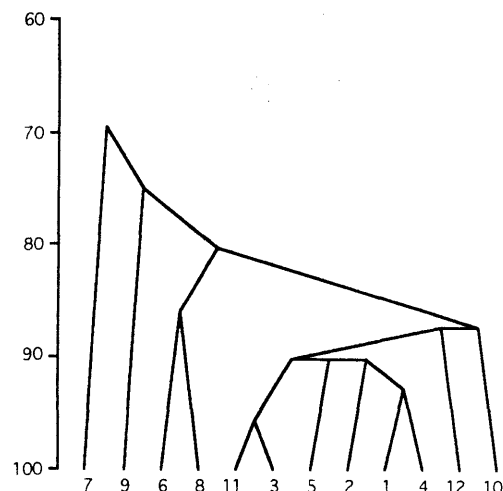
E4 linked to E6 at 100.0
 E2 linked to E11 at 94.4
 E2 linked to E12 at 94.4
 E3 linked to E9 at 93.1
 E1 linked to E11 at 90.3
 E7 linked to E10 at 83.3
 E8 linked to E12 at 83.3
 E9 linked to E10 at 81.9
 E3 linked to E5 at 79.2
 E4 linked to E7 at 59.7
 E5 linked to E8 at 56.9

Construct Links

R3	linked to	L11	at	98.6
L8	linked to	L11	at	97.2
L4	linked to	R9	at	93.1
L8	linked to	L10	at	93.1
R3	linked to	R12	at	91.7
R5	linked to	R9	at	91.7
L4	linked to	L10	at	90.3
L2	linked to	R12	at	83.3
L1	linked to	L7	at	81.9
R5	linked to	L7	at	76.4
L2	linked to	R6	at	70.8

FOCUS Miss VP T8 phase 1

FOCUS: T8 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about childrens' reading



FOCUS Miss VP T8 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	90	85	93	86	56	25	69	53	85	86	81
E2	*	90	100	89	89	90	60	29	71	57	78	90	76
E3	*	85	89	100	78	90	71	40	82	62	72	96	65
E4	*	93	89	78	100	82	49	18	62	46	86	79	88
E5	*	86	90	90	82	100	64	33	78	56	79	86	72
E6	*	56	60	71	49	64	100	69	86	75	43	69	36
E7	*	25	29	40	18	33	69	100	56	69	12	39	6
E8	*	69	71	82	62	78	86	56	100	69	57	81	50
E9	*	53	57	62	46	56	75	69	69	100	40	67	33
E10	*	85	78	72	86	79	43	12	57	40	100	74	88
E11	*	86	90	96	79	86	69	39	81	67	74	100	67
E12	*	81	76	65	88	72	36	6	50	33	88	67	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	81	90	57	92	82	85	85	68	60	53	82
R2	*	81	100	88	43	89	90	82	82	51	79	39	90
R3	*	90	88	100	47	96	83	83	83	58	69	43	89
R4	*	57	43	47	100	49	47	47	47	86	31	88	44
R5	*	92	89	96	49	100	88	88	88	60	68	44	90
R6	*	82	90	83	47	88	100	86	86	58	72	46	89
R7	*	85	82	83	47	88	86	100	100	61	67	49	89
R8	*	85	82	83	47	88	86	100	100	61	67	49	89
R9	*	68	51	58	86	60	58	61	61	100	39	82	53
R10	*	60	79	69	31	68	72	67	67	39	100	32	78
R11	*	53	39	43	88	44	46	49	49	82	32	100	40
R12	*	82	90	89	44	90	89	89	89	53	78	40	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	67	53	57	76	58	60	62	62	88	46	86	54
R2	*	53	39	43	90	44	46	49	49	85	26	86	40
R3	*	57	43	47	83	49	50	53	53	89	36	90	44
R4	*	76	90	83	42	85	92	92	92	53	75	43	92
R5	*	58	44	49	85	50	51	54	54	90	38	92	46
R6	*	60	46	50	92	51	53	53	53	89	33	85	47
R7	*	62	49	53	92	54	53	53	53	86	39	90	50
R8	*	62	49	53	92	54	53	53	53	86	39	90	50
R9	*	88	85	89	53	90	89	86	86	64	67	54	86
R10	*	46	26	36	75	38	33	39	39	67	8	74	28
R11	*	86	86	90	43	92	85	90	90	54	74	39	96
R12	*	54	40	44	92	46	47	50	50	86	28	96	42

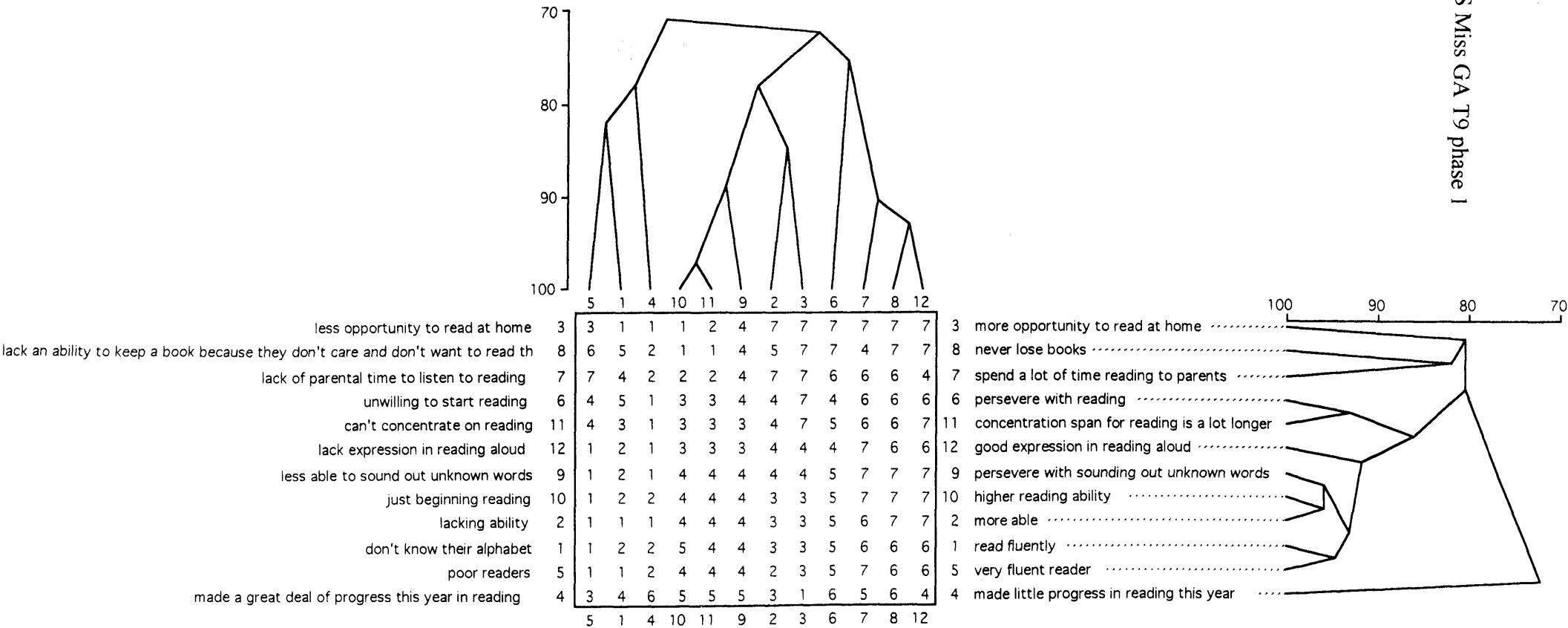
Element Links

E3 linked to E11 at 95.8
 E1 linked to E4 at 93.1
 E1 linked to E2 at 90.3
 E2 linked to E5 at 90.3
 E3 linked to E5 at 90.3
 E4 linked to E12 at 87.5
 E10 linked to E12 at 87.5
 E6 linked to E8 at 86.1
 E8 linked to E11 at 80.6
 E6 linked to E9 at 75.0
 E7 linked to E9 at 69.4

Construct Links

L7 linked to L8 at 100.0
L3 linked to L5 at 95.8
R11 linked to L12 at 95.8
L1 linked to L5 at 91.7
R4 linked to L6 at 91.7
R4 linked to L7 at 91.7
L2 linked to L6 at 90.3
L2 linked to L12 at 90.3
L3 linked to R11 at 90.3
L1 linked to R9 at 87.5
L8 linked to L10 at 66.7

FOCUS: T9 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Miss GA T9 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	71	58	78	82	53	39	38	74	68	68	42
E2	*	71	100	85	54	75	76	60	58	78	64	67	57
E3	*	58	85	100	39	62	72	58	62	65	51	54	64
E4	*	78	54	39	100	68	42	25	24	62	71	71	22
E5	*	82	75	62	68	100	54	35	36	64	53	56	35
E6	*	53	76	72	42	54	100	75	82	76	65	65	75
E7	*	39	60	58	25	35	75	100	90	62	51	51	86
E8	*	38	58	62	24	36	82	90	100	58	47	47	93
E9	*	74	78	65	62	64	76	62	58	100	86	89	60
E10	*	68	64	51	71	53	65	51	47	86	100	97	49
E11	*	68	67	54	71	56	65	51	47	89	97	100	49
E12	*	42	57	64	22	35	75	86	93	60	49	49	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	93	68	78	50	78	67	60	90	94	79	88
R2	*	93	100	75	71	46	76	62	53	94	96	81	86
R3	*	68	75	100	54	40	76	79	31	78	74	81	75
R4	*	78	71	54	100	58	67	64	71	68	72	65	65
R5	*	50	46	40	58	100	58	61	60	49	47	51	49
R6	*	78	76	76	67	58	100	81	46	79	75	93	85
R7	*	67	62	79	64	61	81	100	38	65	64	79	68
R8	*	60	53	31	71	60	46	38	100	50	54	44	50
R9	*	90	94	78	68	49	79	65	50	100	96	83	92
R10	*	94	96	74	72	47	75	64	54	96	100	79	88
R11	*	79	81	81	65	51	93	79	44	83	79	100	86
R12	*	88	86	75	65	49	85	68	50	92	88	86	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	53	49	43	61	94	64	64	62	51	50	57	54
R2	*	49	44	36	57	93	57	57	64	47	46	50	47
R3	*	43	36	17	60	71	40	32	81	33	38	33	33
R4	*	61	57	60	58	72	78	75	57	60	58	76	68
R5	*	94	93	71	72	47	75	64	54	90	94	76	88
R6	*	64	57	40	78	75	58	50	79	57	58	57	57
R7	*	64	57	32	75	64	50	42	82	54	58	46	54
R8	*	62	64	81	57	54	79	82	33	67	65	78	64
R9	*	51	47	33	60	90	57	54	67	50	49	50	50
R10	*	50	46	38	58	94	58	58	65	49	47	51	49
R11	*	57	50	33	76	76	57	46	78	50	51	50	50
R12	*	54	47	33	68	88	57	54	64	50	49	50	50

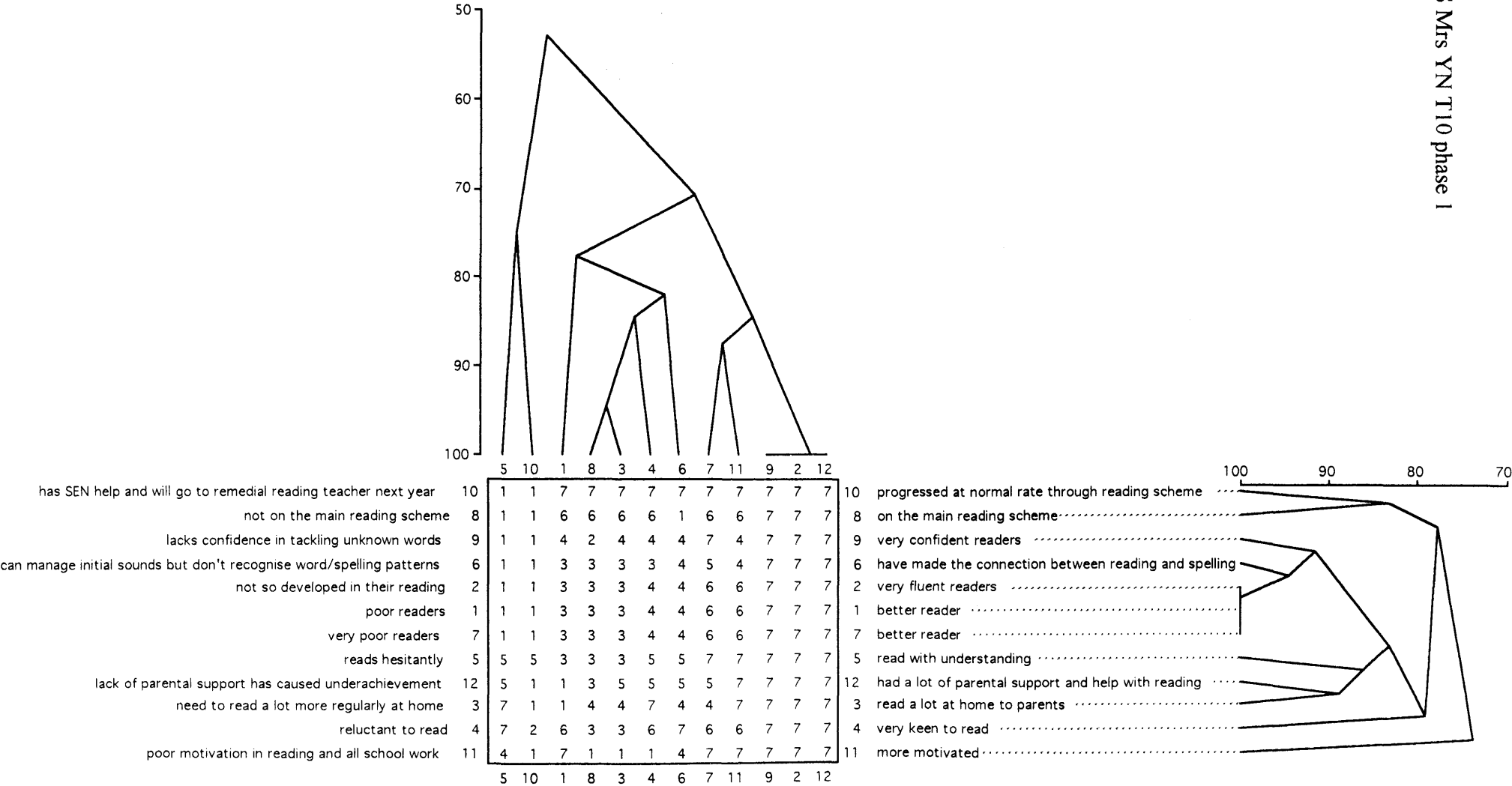
Element Links

E10 linked to E11 at 97.2
 E8 linked to E12 at 93.1
 E7 linked to E8 at 90.3
 E9 linked to E11 at 88.9
 E2 linked to E3 at 84.7
 E1 linked to E5 at 81.9
 E1 linked to E4 at 77.8
 E2 linked to E9 at 77.8
 E6 linked to E7 at 75.0
 E3 linked to E6 at 72.2
 E4 linked to E10 at 70.8

Construct Links

L2 linked to L10 at 95.8
L9 linked to L10 at 95.8
L1 linked to R5 at 94.4
L1 linked to L2 at 93.1
L6 linked to L11 at 93.1
L9 linked to L12 at 91.7
L11 linked to L12 at 86.1
L7 linked to R8 at 81.9
L3 linked to R8 at 80.6
L6 linked to L7 at 80.6
L4 linked to R5 at 72.2

FOCUS: T10 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about childrens' reading



FOCUS Mrs YN T10 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	49	78	71	47	69	65	78	49	53	64	49
E2	*	49	100	46	61	32	57	83	40	100	7	85	100
E3	*	78	46	100	85	53	75	62	94	46	56	61	46
E4	*	71	61	85	100	60	82	69	79	61	46	76	61
E5	*	47	32	53	60	100	67	38	53	32	75	44	32
E6	*	69	57	75	82	67	100	71	69	57	50	69	57
E7	*	65	83	62	69	38	71	100	57	83	24	88	83
E8	*	78	40	94	79	53	69	57	100	40	61	56	40
E9	*	49	100	46	61	32	57	83	40	100	7	85	100
E10	*	53	7	56	46	75	50	24	61	7	100	22	7
E11	*	64	85	61	76	44	69	88	56	85	22	100	85
E12	*	49	100	46	61	32	57	83	40	100	7	85	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	39	44	79	44	94	100	81	42	28	78	42
R2	*	39	100	78	43	83	42	39	36	92	72	31	83
R3	*	44	78	100	35	78	50	44	39	72	67	42	89
R4	*	79	43	35	100	38	74	79	74	43	26	74	38
R5	*	44	83	78	38	100	50	44	44	78	67	36	86
R6	*	94	42	50	74	50	100	94	75	44	33	75	47
R7	*	100	39	44	79	44	94	100	81	42	28	78	42
R8	*	81	36	39	74	44	75	81	100	36	17	67	39
R9	*	42	92	72	43	78	44	42	36	100	72	31	78
R10	*	28	72	67	26	67	33	28	17	72	100	33	69
R11	*	78	31	42	74	36	75	78	67	31	33	100	39
R12	*	42	83	89	38	86	47	42	39	78	69	39	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	39	100	78	43	83	42	39	36	92	72	31	83
R2	*	100	39	44	79	44	94	100	81	42	28	78	42
R3	*	78	44	33	79	39	75	78	69	47	33	67	33
R4	*	43	79	79	25	82	49	43	43	74	74	26	79
R5	*	83	44	39	82	39	78	83	67	47	33	75	42
R6	*	42	94	75	49	78	44	42	42	92	67	33	81
R7	*	39	100	78	43	83	42	39	36	92	72	31	83
R8	*	36	81	69	43	67	42	36	17	78	83	33	72
R9	*	92	42	47	74	47	92	92	78	44	28	78	42
R10	*	72	28	33	74	33	67	72	83	28	0	67	31
R11	*	31	78	67	26	75	33	31	33	78	67	17	72
R12	*	83	42	33	79	42	81	83	72	42	31	72	33

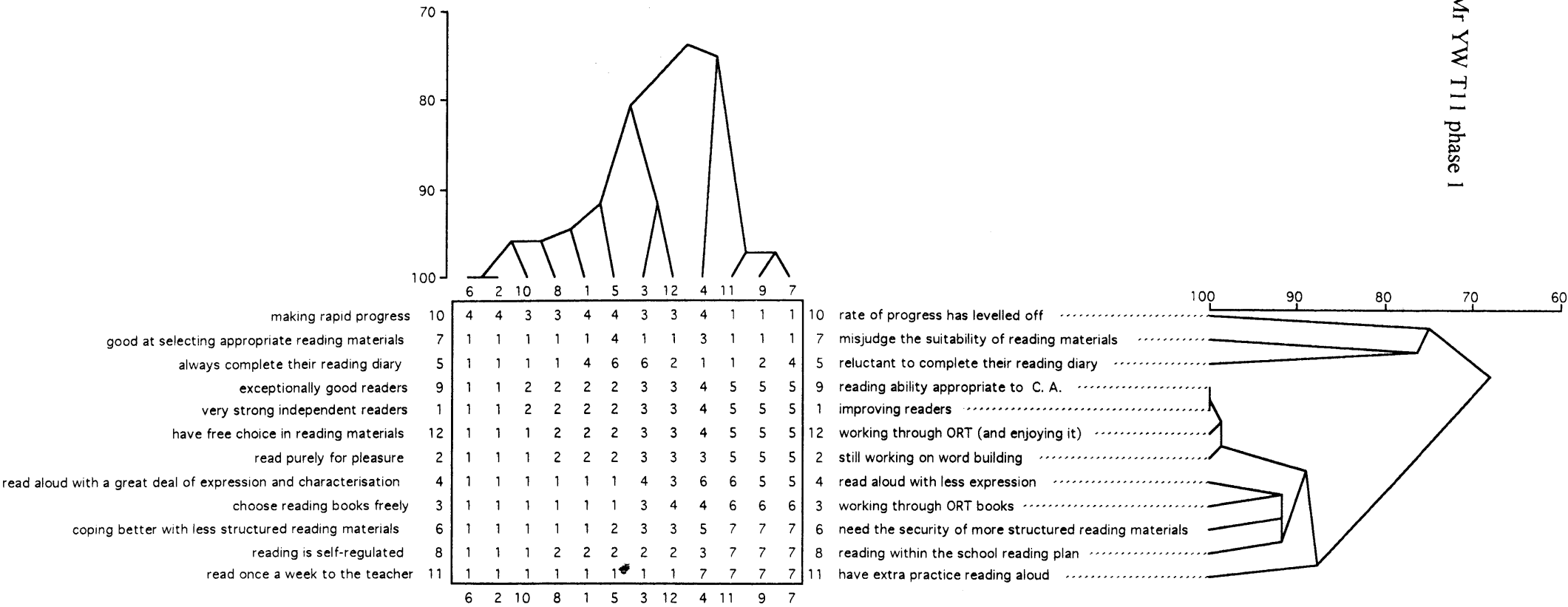
Element Links

E2 linked to E9 at 100.0
 E2 linked to E12 at 100.0
 E3 linked to E8 at 94.4
 E7 linked to E11 at 87.5
 E3 linked to E4 at 84.7
 E9 linked to E11 at 84.7
 E4 linked to E6 at 81.9
 E1 linked to E8 at 77.8
 E5 linked to E10 at 75.0
 E6 linked to E7 at 70.8
 E1 linked to E10 at 52.8

Construct Links

R1 linked to R7 at 100.0
R1 linked to L2 at 100.0
L2 linked to R6 at 94.4
R6 linked to L9 at 91.7
L3 linked to L12 at 88.9
L5 linked to L12 at 86.1
L5 linked to R7 at 83.3
R8 linked to L10 at 83.3
L3 linked to R4 at 79.2
R8 linked to L9 at 77.8
R4 linked to R11 at 73.6

FOCUS: T11 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mr YW T11 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	89	81	57	92	89	43	94	40	90	38	81
E2	*	89	100	69	54	81	100	32	92	35	96	35	75
E3	*	81	69	100	68	81	69	57	78	54	74	51	92
E4	*	57	54	68	100	57	54	69	60	72	56	75	74
E5	*	92	81	81	57	100	81	38	86	35	82	32	75
E6	*	89	100	69	54	81	100	32	92	35	96	35	75
E7	*	43	32	57	69	38	32	100	40	97	36	94	57
E8	*	94	92	78	60	86	92	40	100	43	96	43	83
E9	*	40	35	54	72	35	35	97	43	100	39	97	60
E10	*	90	96	74	56	82	96	36	96	39	100	39	79
E11	*	38	35	51	75	32	35	94	43	97	39	100	57
E12	*	81	75	92	74	75	75	57	83	60	79	57	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	44	39	89	51	86	69	86	47	67	76	46
R2	*	44	100	89	39	71	33	36	31	97	61	24	99
R3	*	39	89	100	31	62	25	39	25	89	64	15	90
R4	*	89	39	31	100	49	89	67	81	39	56	85	38
R5	*	51	71	62	49	100	49	26	49	68	49	47	69
R6	*	86	33	25	89	49	100	64	92	33	53	90	32
R7	*	69	36	39	67	26	64	100	67	39	75	65	38
R8	*	86	31	25	81	49	92	67	100	33	53	88	32
R9	*	47	97	89	39	68	33	39	33	100	64	24	99
R10	*	67	61	64	56	49	53	75	53	64	100	43	62
R11	*	76	24	15	85	47	90	65	88	24	43	100	22
R12	*	46	99	90	38	69	32	38	32	99	62	22	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	47	97	89	39	68	33	39	33	100	64	24	99
R2	*	97	42	36	89	49	86	72	89	44	64	76	43
R3	*	89	36	31	92	49	92	67	86	39	56	85	38
R4	*	39	89	92	31	65	25	36	28	89	58	15	90
R5	*	68	49	49	65	28	60	76	62	51	68	53	50
R6	*	33	86	92	25	60	19	44	22	86	67	10	88
R7	*	39	72	67	36	76	44	14	42	69	39	35	71
R8	*	33	89	86	28	62	22	42	19	86	67	12	88
R9	*	100	44	39	89	51	86	69	86	47	67	76	46
R10	*	64	64	56	58	68	67	39	67	67	64	57	65
R11	*	24	76	85	15	53	10	35	12	76	57	0	78
R12	*	99	43	38	90	50	88	71	88	46	65	78	44

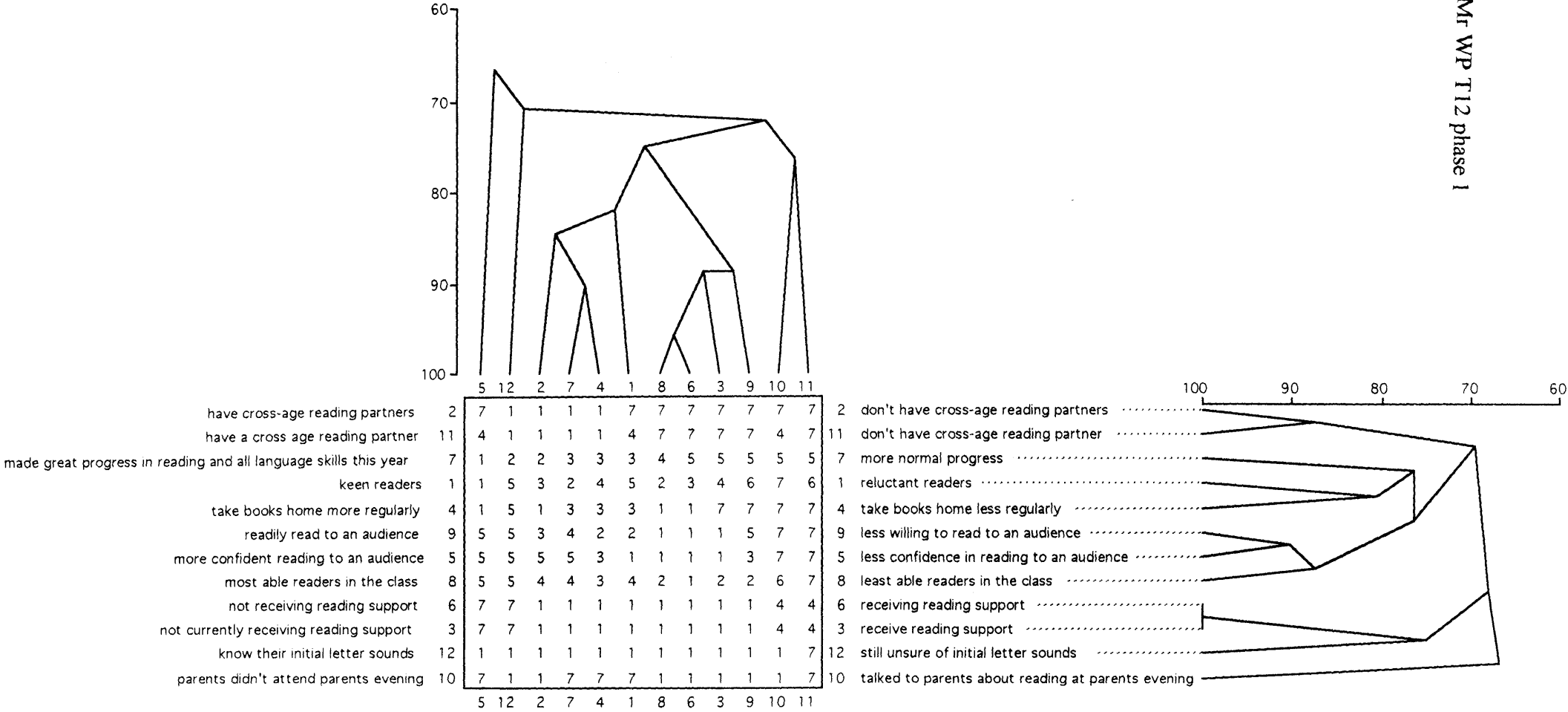
Element Links

E2 linked to E6 at 100.0
 E7 linked to E9 at 97.2
 E9 linked to E11 at 97.2
 E2 linked to E10 at 95.8
 E8 linked to E10 at 95.8
 E1 linked to E8 at 94.4
 E1 linked to E5 at 91.7
 E3 linked to E12 at 91.7
 E3 linked to E5 at 80.6
 E4 linked to E11 at 75.0
 E4 linked to E12 at 73.6

Construct Links

R1	linked to	L9	at	100.0
R1	linked to	L12	at	98.6
L2	linked to	L12	at	98.6
L3	linked to	R4	at	91.7
L3	linked to	R6	at	91.7
R6	linked to	R8	at	91.7
L2	linked to	R4	at	88.9
R8	linked to	R11	at	87.5
L5	linked to	R7	at	76.4
R7	linked to	R10	at	75.0
L5	linked to	L9	at	68.1

FOCUS: T12 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mr WP T12 phase 1

FOCUS Mr WP T12 phase I

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	65	74	82	61	74	75	75	68	54	50	47
E2	*	65	100	58	81	54	67	85	68	58	50	29	71
E3	*	74	58	100	61	38	89	51	88	89	61	49	43
E4	*	82	81	61	100	51	61	90	62	58	42	38	60
E5	*	61	54	38	51	100	46	61	50	43	54	50	67
E6	*	74	67	89	61	46	100	54	96	78	50	38	38
E7	*	75	85	51	90	61	54	100	58	54	46	42	64
E8	*	75	68	88	62	50	96	58	100	76	49	36	39
E9	*	68	58	89	58	43	78	54	76	100	72	60	51
E10	*	54	50	61	42	54	50	46	49	72	100	76	62
E11	*	50	29	49	38	50	38	42	36	60	76	100	42
E12	*	47	71	43	60	67	38	64	39	51	62	42	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	56	53	81	56	53	62	60	74	56	49	56
R2	*	56	100	42	58	61	42	40	54	49	58	12	42
R3	*	53	42	100	56	31	100	60	35	71	42	62	75
R4	*	81	58	56	100	47	56	46	51	76	56	43	61
R5	*	56	61	31	47	100	31	57	88	40	58	40	36
R6	*	53	42	100	56	31	100	60	35	71	42	62	75
R7	*	62	40	60	46	57	60	100	64	58	43	69	40
R8	*	60	54	35	51	88	35	64	100	47	62	50	38
R9	*	74	49	71	76	40	71	58	47	100	43	58	65
R10	*	56	58	42	56	58	42	43	62	43	100	38	33
R11	*	49	12	62	43	40	62	69	50	58	38	100	46
R12	*	56	42	75	61	36	75	40	38	65	33	46	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	50	44	50	39	67	50	76	74	49	44	57	44
R2	*	44	0	58	42	39	58	60	46	51	42	88	58
R3	*	50	58	17	44	69	17	51	68	29	58	46	25
R4	*	39	42	44	22	69	44	74	71	40	44	62	39
R5	*	67	39	69	69	33	69	65	43	90	42	65	64
R6	*	50	58	17	44	69	17	51	68	29	58	46	25
R7	*	76	60	51	74	65	51	58	69	64	57	42	60
R8	*	74	46	68	71	43	68	69	53	86	38	67	62
R9	*	49	51	29	40	90	29	64	86	36	57	50	35
R10	*	44	42	58	44	42	58	57	38	57	0	62	67
R11	*	57	88	46	62	65	46	42	67	50	62	25	54
R12	*	44	58	25	39	64	25	60	62	35	67	54	0

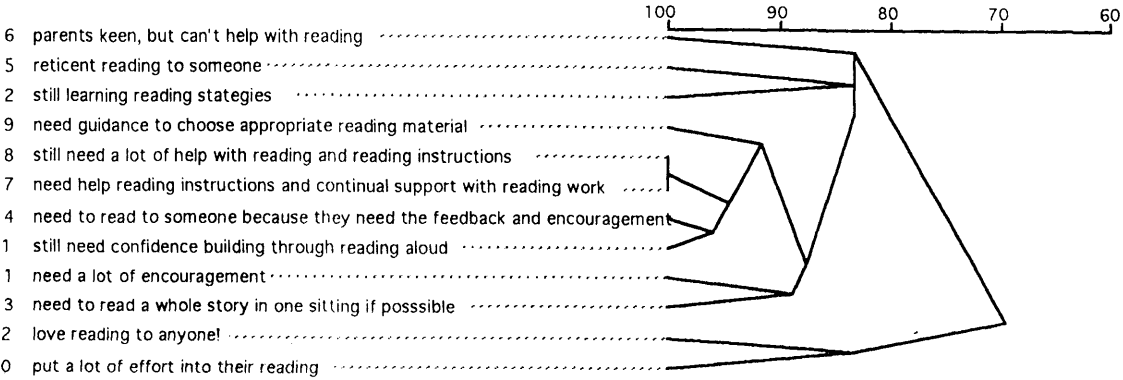
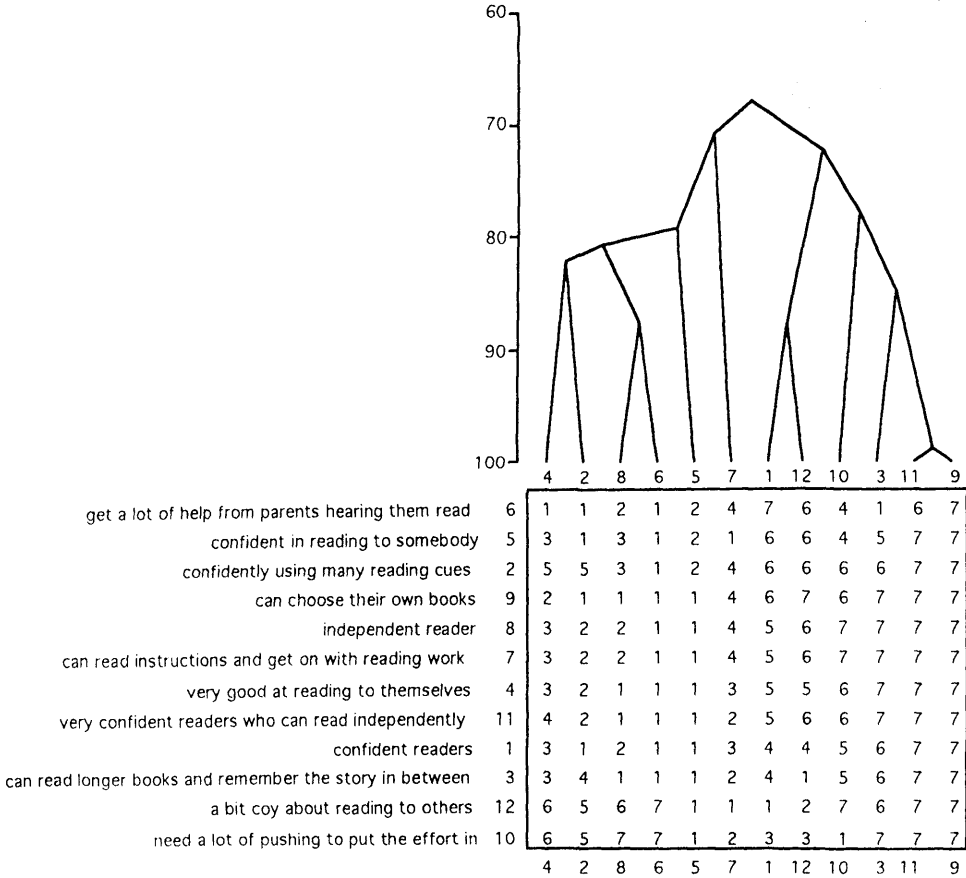
Element Links

E6 linked to E8 at 95.8
 E4 linked to E7 at 90.3
 E3 linked to E6 at 88.9
 E3 linked to E9 at 88.9
 E2 linked to E7 at 84.7
 E1 linked to E4 at 81.9
 E10 linked to E11 at 76.4
 E1 linked to E8 at 75.0
 E9 linked to E10 at 72.2
 E2 linked to E12 at 70.8
 E5 linked to E12 at 66.7

Construct Links

R3 linked to R6 at 100.0
L5 linked to R9 at 90.3
R2 linked to L11 at 87.5
L5 linked to L8 at 87.5
R1 linked to R4 at 80.6
R1 linked to L7 at 76.4
R4 linked to R9 at 76.4
R3 linked to R12 at 75.0
L7 linked to L11 at 69.4
R6 linked to L8 at 68.1
L10 linked to R12 at 66.7

FOCUS: T13 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mrs WB T13 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	47	60	57	42	26	68	39	62	71	61	88
E2	*	47	100	43	82	72	79	68	81	26	43	28	40
E3	*	60	43	100	58	18	31	39	40	83	78	85	64
E4	*	57	82	58	100	60	69	69	79	42	56	43	53
E5	*	42	72	18	60	100	79	71	78	4	32	6	40
E6	*	26	79	31	69	79	100	56	88	17	28	18	28
E7	*	68	68	39	69	71	56	100	62	31	56	32	64
E8	*	39	81	40	79	78	88	62	100	26	38	28	40
E9	*	62	26	83	42	4	17	31	26	100	72	99	64
E10	*	71	43	78	56	32	28	56	38	72	100	74	72
E11	*	61	28	85	43	6	18	32	28	99	74	100	65
E12	*	88	40	64	53	40	28	64	40	64	72	65	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	81	36	92	86	78	33	33	86	53	88	47
R2	*	81	100	44	83	83	75	39	39	83	53	85	50
R3	*	36	44	100	33	39	42	81	81	33	67	35	69
R4	*	92	83	33	100	83	75	28	28	92	58	96	47
R5	*	86	83	39	83	100	83	31	31	83	50	85	53
R6	*	78	75	42	75	83	100	36	36	81	61	74	64
R7	*	33	39	81	28	31	36	100	100	22	58	26	61
R8	*	33	39	81	28	31	36	100	100	22	58	26	61
R9	*	86	83	33	92	83	81	22	22	100	56	90	50
R10	*	53	53	67	58	50	61	58	58	56	100	54	83
R11	*	88	85	35	96	85	74	26	26	90	54	100	46
R12	*	47	50	69	47	53	64	61	61	50	83	46	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	39	44	89	33	36	39	89	89	28	64	32	64
R2	*	44	39	78	39	42	44	86	86	33	64	35	67
R3	*	89	78	33	86	78	67	36	36	78	50	85	42
R4	*	33	39	86	28	31	36	94	94	22	61	26	61
R5	*	36	42	78	31	33	33	83	83	25	58	29	58
R6	*	39	44	67	36	33	28	78	78	31	44	35	42
R7	*	89	86	36	94	83	78	28	28	92	58	93	50
R8	*	89	86	36	94	83	78	28	28	92	58	93	50
R9	*	28	33	78	22	25	31	92	92	17	53	21	53
R10	*	64	64	50	61	58	44	58	58	53	22	62	28
R11	*	32	35	85	26	29	35	93	93	21	62	25	62
R12	*	64	67	42	61	58	42	50	50	53	28	62	17

Element Links

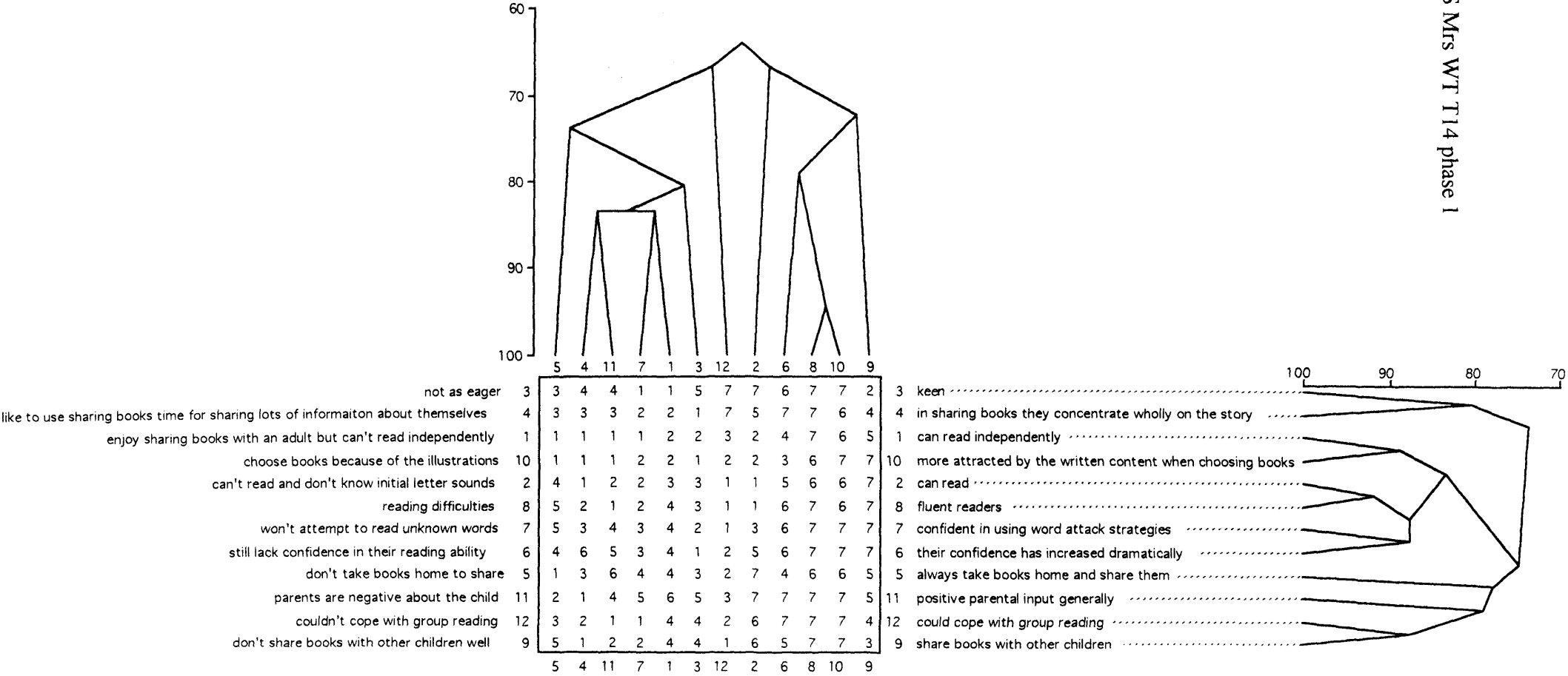
E9 linked to E11 at 98.6
 E1 linked to E12 at 87.5
 E6 linked to E8 at 87.5
 E3 linked to E11 at 84.7
 E2 linked to E4 at 81.9
 E2 linked to E8 at 80.6
 E5 linked to E6 at 79.2
 E3 linked to E10 at 77.8
 E10 linked to E12 at 72.2
 E5 linked to E7 at 70.8
 E1 linked to E7 at 68.1

Construct Links

L7 linked to L8 at 100.0
R4 linked to R11 at 95.8
R4 linked to L7 at 94.4
L8 linked to R9 at 91.7
R1 linked to L3 at 88.9
R1 linked to R11 at 87.5
R2 linked to R5 at 83.3
R2 linked to R9 at 83.3
R5 linked to R6 at 83.3
L10 linked to L12 at 83.3
L3 linked to L12 at 69.4

FOCUS: T14 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading

FOCUS Mrs WT T14 phase 1



FOCUS Mrs WT T14 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	67	81	67	76	64	83	43	62	46	72	56
E2	*	67	100	64	61	54	67	61	57	43	60	69	64
E3	*	81	64	100	69	71	56	75	35	49	38	69	67
E4	*	67	61	69	100	74	47	78	26	46	29	83	72
E5	*	76	54	71	74	100	60	68	39	56	42	71	57
E6	*	64	67	56	47	60	100	47	79	65	79	50	50
E7	*	83	61	75	78	68	47	100	26	51	29	83	67
E8	*	43	57	35	26	39	79	26	100	69	94	35	32
E9	*	62	43	49	46	56	65	51	69	100	72	51	35
E10	*	46	60	38	29	42	79	29	94	72	100	38	32
E11	*	72	69	69	83	71	50	83	35	51	38	100	67
E12	*	56	64	67	72	57	50	67	32	35	32	67	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	81	62	40	72	64	40	33	47	89	50	40
R2	*	81	100	57	49	69	72	40	33	47	83	53	43
R3	*	62	57	100	39	65	65	61	60	49	54	49	42
R4	*	40	49	39	100	54	51	72	68	71	40	68	78
R5	*	72	69	65	54	100	75	54	58	58	69	47	51
R6	*	64	72	65	51	75	100	49	47	53	69	50	49
R7	*	40	40	61	72	54	49	100	88	79	38	71	75
R8	*	33	33	60	68	58	47	88	100	81	31	64	79
R9	*	47	47	49	71	58	53	79	81	100	44	75	88
R10	*	89	83	54	40	69	69	38	31	44	100	47	38
R11	*	50	53	49	68	47	50	71	64	75	47	100	79
R12	*	40	43	42	78	51	49	75	79	88	38	79	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	31	33	46	74	53	47	71	78	72	25	67	76
R2	*	33	36	60	68	58	50	82	92	81	31	64	74
R3	*	46	60	33	81	54	51	64	57	71	49	71	75
R4	*	74	68	81	39	68	74	56	49	51	68	51	44
R5	*	53	58	54	68	53	50	74	67	72	47	78	74
R6	*	47	50	51	74	50	42	88	75	72	44	69	74
R7	*	71	82	64	56	74	88	44	38	49	74	51	47
R8	*	78	92	57	49	67	75	38	31	44	78	50	43
R9	*	72	81	71	51	72	72	49	44	42	69	47	43
R10	*	25	31	49	68	47	44	74	78	69	19	61	71
R11	*	67	64	71	51	78	69	51	50	47	61	36	40
R12	*	76	74	75	44	74	74	47	43	43	71	40	39

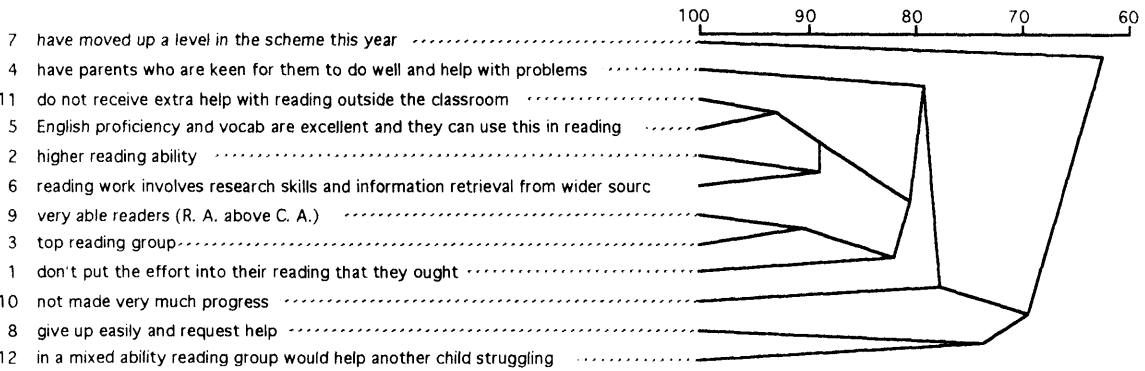
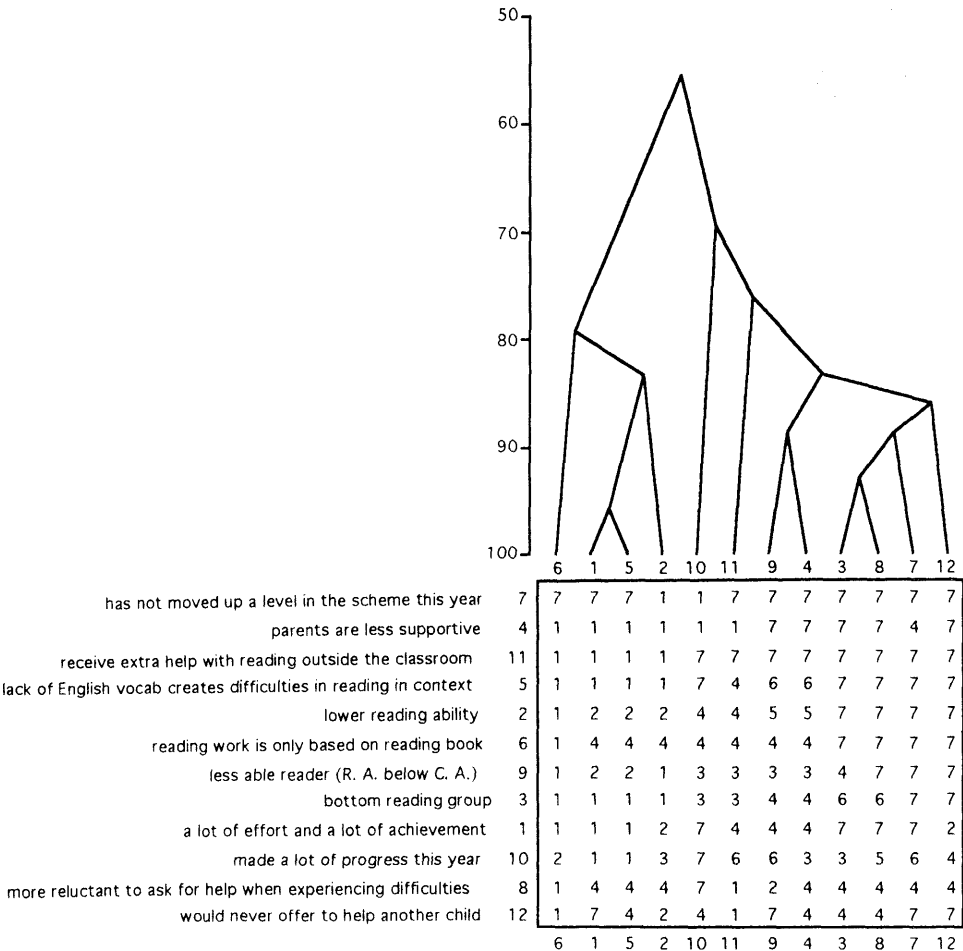
Element Links

E8 linked to E10 at 94.4
 E1 linked to E7 at 83.3
 E4 linked to E11 at 83.3
 E7 linked to E11 at 83.3
 E1 linked to E3 at 80.6
 E6 linked to E8 at 79.2
 E4 linked to E5 at 73.6
 E9 linked to E10 at 72.2
 E2 linked to E6 at 66.7
 E3 linked to E12 at 66.7
 E2 linked to E12 at 63.9

Construct Links

R2	linked to	L8	at	91.7
R1	linked to	R10	at	88.9
R6	linked to	L7	at	87.5
L7	linked to	L8	at	87.5
L9	linked to	L12	at	87.5
R2	linked to	R10	at	83.3
R3	linked to	L4	at	80.6
L11	linked to	L12	at	79.2
R5	linked to	L11	at	77.8
R5	linked to	R6	at	75.0
R1	linked to	L4	at	73.6

FOCUS: T15 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Miss PT T15 phase 1

FOCUS Miss PT T15 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	79	39	56	96	79	38	32	53	43	57	43
E2	*	79	100	35	51	83	78	25	28	40	56	58	31
E3	*	39	35	100	83	43	29	82	93	72	60	57	82
E4	*	56	51	83	100	60	46	65	76	89	65	74	74
E5	*	96	83	43	60	100	83	33	36	49	47	61	39
E6	*	79	78	29	46	83	100	19	22	40	33	64	25
E7	*	38	25	82	65	33	19	100	89	71	58	56	86
E8	*	32	28	93	76	36	22	89	100	71	58	56	86
E9	*	53	40	72	89	49	40	71	71	100	62	76	74
E10	*	43	56	60	65	47	33	58	58	62	100	69	44
E11	*	57	58	57	74	61	64	56	56	76	69	100	50
E12	*	43	31	82	74	39	25	86	86	74	44	50	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	83	82	67	28	78	46	50	75	78	79	60
R2	*	83	100	88	78	25	89	62	56	86	69	82	74
R3	*	82	88	100	79	26	82	56	54	90	71	78	72
R4	*	67	78	79	100	19	67	62	53	72	58	79	65
R5	*	28	25	26	19	100	36	40	58	33	33	7	38
R6	*	78	89	82	67	36	100	62	64	81	64	71	76
R7	*	46	62	56	62	40	62	100	65	54	43	67	61
R8	*	50	56	54	53	58	64	65	100	56	67	49	62
R9	*	75	86	90	72	33	81	54	56	100	69	71	74
R10	*	78	69	71	58	33	64	43	67	69	100	74	62
R11	*	79	82	78	79	7	71	67	49	71	74	100	61
R12	*	60	74	72	65	38	76	61	62	74	62	61	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	31	39	40	33	86	50	54	67	42	39	21	51
R2	*	39	36	35	22	89	47	38	61	42	44	18	46
R3	*	40	35	33	21	85	46	44	62	35	46	22	47
R4	*	33	22	21	8	81	33	38	56	28	44	21	35
R5	*	86	89	85	81	14	78	60	47	78	75	93	65
R6	*	50	47	46	33	78	58	38	72	47	53	29	51
R7	*	54	38	44	38	60	38	0	35	46	57	33	39
R8	*	67	61	62	56	47	72	35	69	67	69	51	74
R9	*	42	42	35	28	78	47	46	67	36	47	29	49
R10	*	39	44	46	44	75	53	57	69	47	42	26	57
R11	*	21	18	22	21	93	29	33	51	29	26	0	39
R12	*	51	46	47	35	65	51	39	74	49	57	39	44

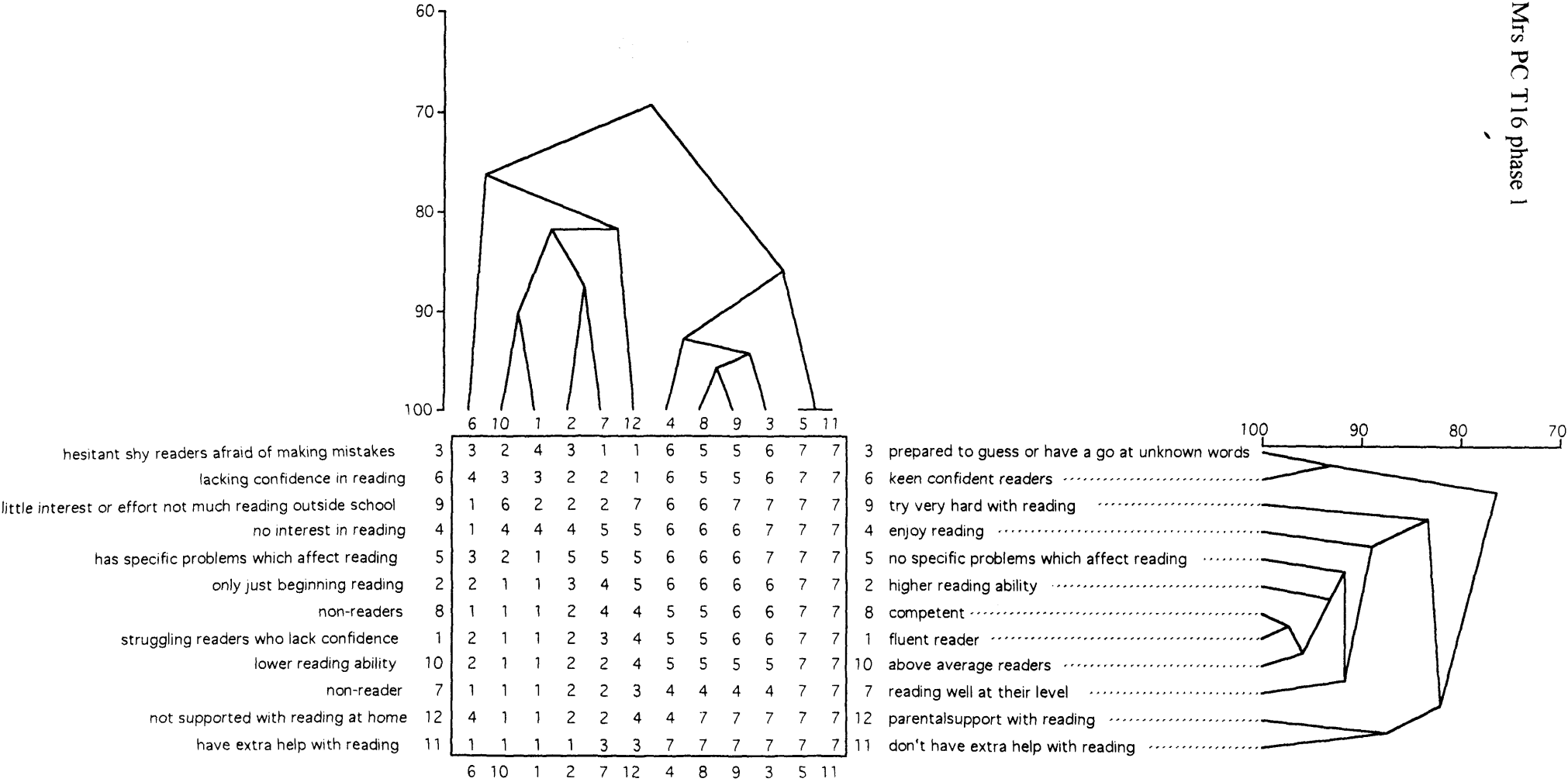
Element Links

E1 linked to E5 at 95.8
 E3 linked to E8 at 93.1
 E4 linked to E9 at 88.9
 E7 linked to E8 at 88.9
 E7 linked to E12 at 86.1
 E2 linked to E5 at 83.3
 E3 linked to E4 at 83.3
 E1 linked to E6 at 79.2
 E9 linked to E11 at 76.4
 E10 linked to E11 at 69.4
 E2 linked to E10 at 55.6

Construct Links

R5 linked to L11 at	93.1
L3 linked to L9 at	90.3
L2 linked to L6 at	88.9
L2 linked to R5 at	88.9
L1 linked to L3 at	81.9
L6 linked to L9 at	80.6
L4 linked to L11 at	79.2
L1 linked to L10 at	77.8
R8 linked to L12 at	73.6
R8 linked to L10 at	69.4
L4 linked to L7 at	62.5

FOCUS: T16 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about childrens' reading



FOCUS Mrs PC T16 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	82	26	38	12	81	69	36	32	90	12	51
E2	*	82	100	39	50	25	82	88	49	44	78	25	69
E3	*	26	39	100	89	86	32	46	90	94	31	86	61
E4	*	38	50	89	100	75	43	57	93	89	42	75	69
E5	*	12	25	86	75	100	18	32	76	81	17	100	47
E6	*	81	82	32	43	18	100	69	42	38	76	18	57
E7	*	69	88	46	57	32	69	100	56	51	68	32	82
E8	*	36	49	90	93	76	42	56	100	96	40	76	68
E9	*	32	44	94	89	81	38	51	96	100	36	81	67
E10	*	90	78	31	42	17	76	68	40	36	100	17	61
E11	*	12	25	86	75	100	18	32	76	81	17	100	47
E12	*	51	69	61	69	47	57	82	68	67	61	47	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	35	82	43	40	39	40	97	32	38	24	33
R2	*	35	100	39	86	92	79	81	35	81	89	86	85
R3	*	82	39	100	47	44	40	42	79	42	39	25	35
R4	*	43	86	47	100	89	76	69	40	83	75	78	74
R5	*	40	92	44	89	100	76	72	38	78	81	81	82
R6	*	39	79	40	76	76	100	79	39	76	85	76	81
R7	*	40	81	42	69	72	79	100	40	72	92	81	82
R8	*	97	35	79	40	38	39	40	100	32	38	24	33
R9	*	32	81	42	83	78	76	72	32	100	78	81	79
R10	*	38	89	39	75	81	85	92	38	78	100	83	88
R11	*	24	86	25	78	81	76	81	24	81	83	100	88
R12	*	33	85	35	74	82	81	82	33	79	88	88	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	36	93	38	79	85	83	88	36	79	96	88	89
R2	*	93	33	81	39	36	40	42	93	31	36	25	32
R3	*	38	81	39	78	78	93	78	38	72	83	75	76
R4	*	79	39	78	44	39	49	50	82	33	44	33	40
R5	*	85	36	78	39	33	46	47	85	36	42	31	38
R6	*	83	40	93	49	46	42	43	81	40	40	26	36
R7	*	88	42	78	50	47	43	44	88	39	42	28	38
R8	*	36	93	38	82	85	81	88	36	79	93	88	86
R9	*	79	31	72	33	36	40	39	79	17	33	22	29
R10	*	96	36	83	44	42	40	42	93	33	39	25	35
R11	*	88	25	75	33	31	26	28	88	22	25	11	21
R12	*	89	32	76	40	38	36	38	86	29	35	21	31

Element Links

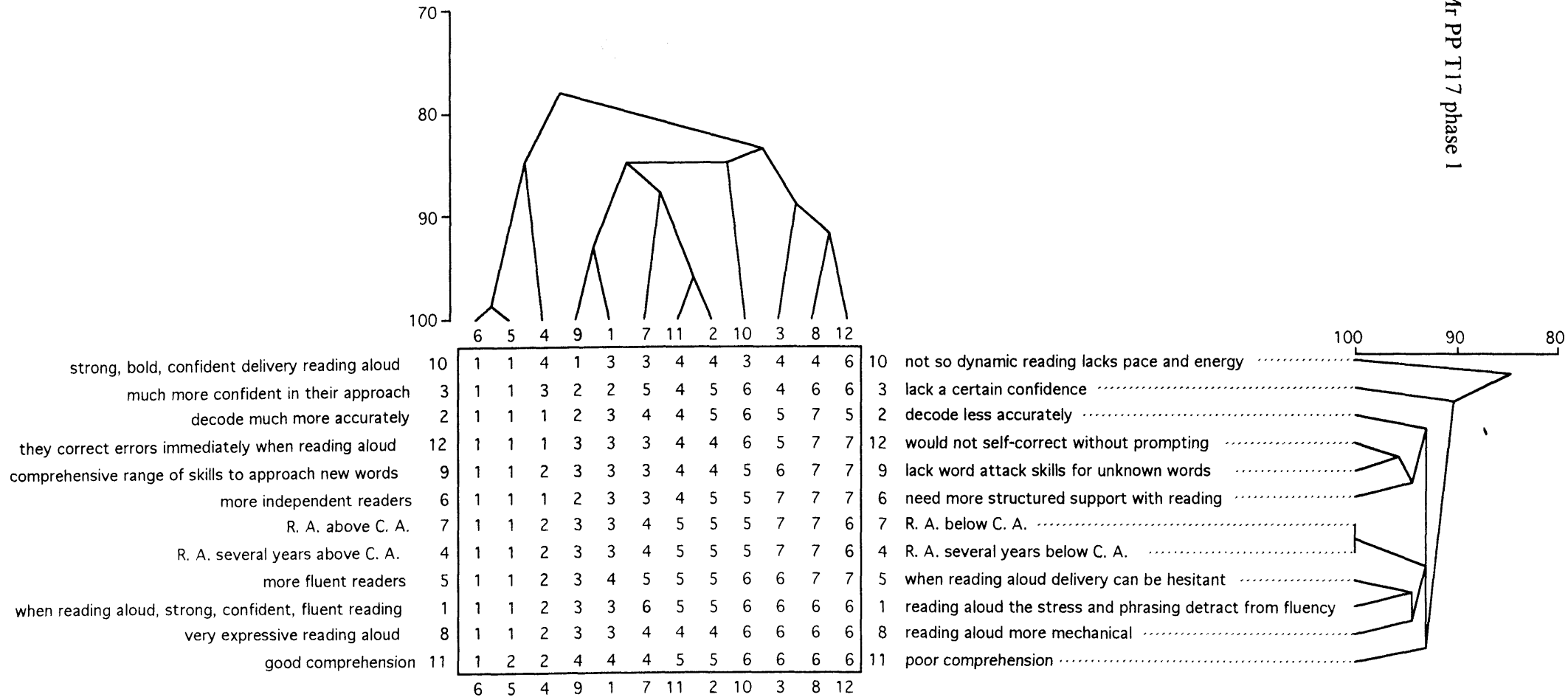
E5 linked to E11 at 100.0
 E8 linked to E9 at 95.8
 E3 linked to E9 at 94.4
 E4 linked to E8 at 93.1
 E1 linked to E10 at 90.3
 E2 linked to E7 at 87.5
 E3 linked to E5 at 86.1
 E1 linked to E2 at 81.9
 E7 linked to E12 at 81.9
 E6 linked to E10 at 76.4
 E4 linked to E12 at 69.4

Construct Links

R1	linked to	R8	at	97.2
R1	linked to	L10	at	95.8
L2	linked to	R8	at	93.1
R3	linked to	L6	at	93.1
L2	linked to	L5	at	91.7
L7	linked to	L10	at	91.7
L4	linked to	L5	at	88.9
L11	linked to	L12	at	87.5
L4	linked to	L9	at	83.3
L7	linked to	L12	at	81.9
L6	linked to	L9	at	76.4

FOCUS: T17 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading

FOCUS Mr PP T17 phase 1



FOCUS Mr PP T17 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	74	56	76	67	65	85	44	93	61	78	47
E2	*	74	100	79	56	40	39	86	71	67	85	96	74
E3	*	56	79	100	38	22	21	68	89	49	83	78	86
E4	*	76	56	38	100	85	83	64	26	78	40	60	29
E5	*	67	40	22	85	100	99	51	11	74	28	44	14
E6	*	65	39	21	83	99	100	50	10	72	26	43	12
E7	*	85	86	68	64	51	50	100	60	78	76	88	62
E8	*	44	71	89	26	11	10	60	100	38	83	67	92
E9	*	93	67	49	78	74	72	78	38	100	54	71	40
E10	*	61	85	83	40	28	26	76	83	54	100	81	83
E11	*	78	96	78	60	44	43	88	67	71	81	100	69
E12	*	47	74	86	29	14	12	62	92	40	83	69	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	42	90	93	94	86	93	94	89	56	46	43
R2	*	42	100	46	43	42	39	43	47	44	81	88	93
R3	*	90	46	100	86	88	85	86	90	85	60	50	47
R4	*	93	43	86	100	93	93	100	93	93	54	47	42
R5	*	94	42	88	93	100	89	93	92	92	56	46	43
R6	*	86	39	85	93	89	100	93	89	94	50	43	38
R7	*	93	43	86	100	93	93	100	93	93	54	47	42
R8	*	94	47	90	93	92	89	93	100	94	58	51	46
R9	*	89	44	85	93	92	94	93	94	100	56	49	43
R10	*	56	81	60	54	56	50	54	58	56	100	76	82
R11	*	46	88	50	47	46	43	47	51	49	76	100	86
R12	*	43	93	47	42	43	38	42	46	43	82	86	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	39	89	43	40	39	39	40	44	44	78	93	88
R2	*	89	44	90	90	89	92	90	92	89	56	49	43
R3	*	43	90	47	44	43	43	44	49	49	85	86	86
R4	*	40	90	44	42	40	38	42	46	43	79	92	89
R5	*	39	89	43	40	39	39	40	44	44	75	93	90
R6	*	39	92	43	38	39	33	38	42	39	81	85	93
R7	*	40	90	44	42	40	38	42	46	43	79	92	89
R8	*	44	92	49	46	44	42	46	50	47	83	93	93
R9	*	44	89	49	43	44	39	43	47	44	83	88	96
R10	*	78	56	85	79	75	81	79	83	83	61	60	54
R11	*	93	49	86	92	93	85	92	93	88	60	53	47
R12	*	88	43	86	89	90	93	89	93	96	54	47	42

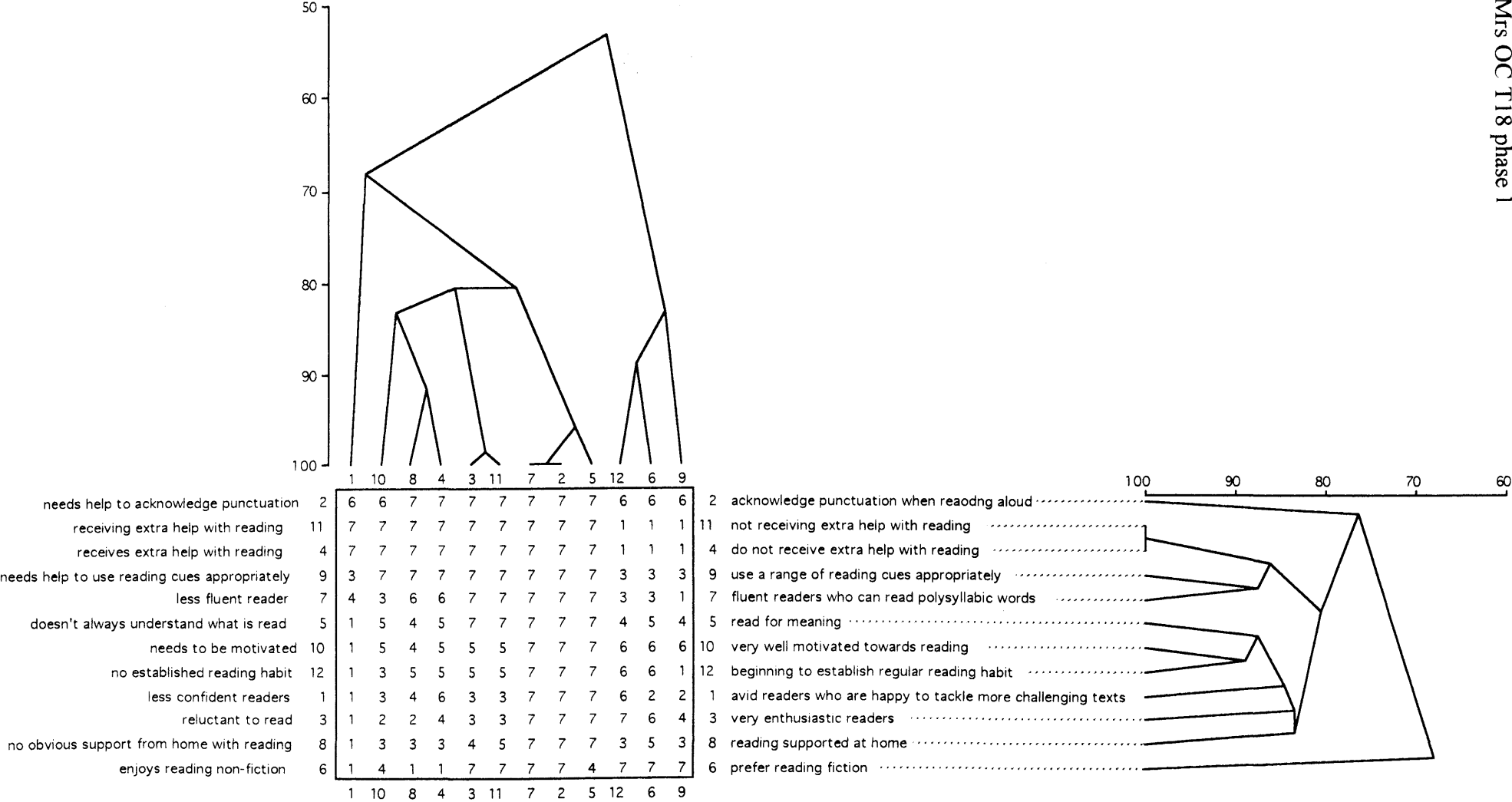
Element Links

E5 linked to E6 at 98.6
 E2 linked to E11 at 95.8
 E1 linked to E9 at 93.1
 E8 linked to E12 at 91.7
 E3 linked to E8 at 88.9
 E7 linked to E11 at 87.5
 E1 linked to E7 at 84.7
 E2 linked to E10 at 84.7
 E4 linked to E5 at 84.7
 E3 linked to E10 at 83.3
 E4 linked to E9 at 77.8

Construct Links

L4 linked to L7 at 100.0
L9 linked to R12 at 95.8
L1 linked to L5 at 94.4
L1 linked to L8 at 94.4
L6 linked to L9 at 94.4
R2 linked to R12 at 93.1
L4 linked to L5 at 93.1
L6 linked to L7 at 93.1
L8 linked to R11 at 93.1
R2 linked to L3 at 90.3
L3 linked to R10 at 84.7

FOCUS: T18 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mrs OC T18 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	31	51	60	35	40	31	68	51	68	50	38
E2	*	31	100	79	71	96	54	100	62	38	60	81	57
E3	*	51	79	100	81	75	58	79	81	53	81	99	53
E4	*	60	71	81	100	75	50	71	92	47	81	79	56
E5	*	35	96	75	75	100	50	96	67	33	64	76	53
E6	*	40	54	58	50	50	100	54	47	83	58	60	89
E7	*	31	100	79	71	96	54	100	62	38	60	81	57
E8	*	68	62	81	92	67	47	62	100	47	83	79	50
E9	*	51	38	53	47	33	83	38	47	100	61	51	81
E10	*	68	60	81	81	64	58	60	83	61	100	79	56
E11	*	50	81	99	79	76	60	81	79	51	79	100	51
E12	*	38	57	53	56	53	89	57	50	81	56	51	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	61	83	60	75	57	75	81	68	79	60	46
R2	*	61	100	61	76	78	65	75	61	82	79	76	38
R3	*	83	61	100	43	75	71	61	83	57	82	43	43
R4	*	60	76	43	100	68	42	82	57	86	56	100	39
R5	*	75	78	75	68	100	74	81	83	82	88	68	40
R6	*	57	65	71	42	74	100	57	68	56	75	42	39
R7	*	75	75	61	82	81	57	100	75	88	68	82	38
R8	*	81	61	83	57	83	68	75	100	71	82	57	49
R9	*	68	82	57	86	82	56	88	71	100	69	86	36
R10	*	79	79	82	56	88	75	68	82	69	100	56	44
R11	*	60	76	43	100	68	42	82	57	86	56	100	39
R12	*	46	38	43	39	40	39	38	49	36	44	39	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	36	50	42	40	50	49	42	53	40	57	40	85
R2	*	50	14	47	24	33	38	36	50	29	32	24	71
R3	*	42	47	36	57	47	32	50	47	51	46	57	82
R4	*	40	24	57	0	32	58	18	43	14	44	0	61
R5	*	50	33	47	32	42	32	42	50	35	40	32	82
R6	*	49	38	32	58	32	17	49	38	44	31	58	67
R7	*	42	36	50	18	42	49	31	47	29	49	18	79
R8	*	53	50	47	43	50	38	47	47	46	54	43	85
R9	*	40	29	51	14	35	44	29	46	22	39	14	69
R10	*	57	32	46	44	40	31	49	54	39	39	44	89
R11	*	40	24	57	0	32	58	18	43	14	44	0	61
R12	*	85	71	82	61	82	67	79	85	69	89	61	33

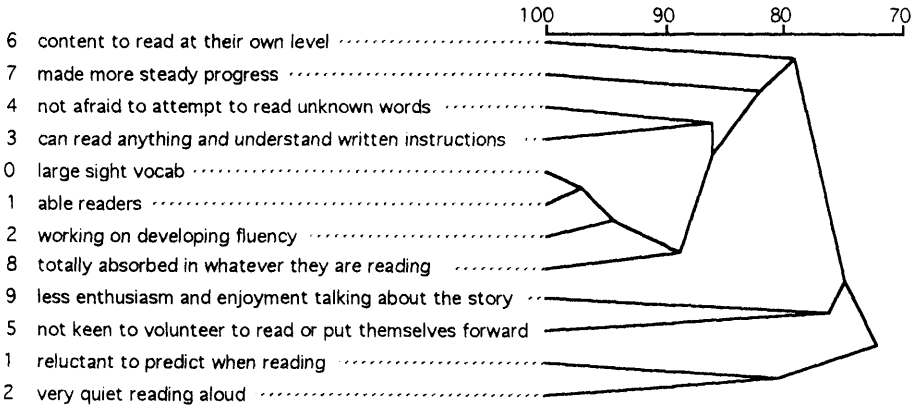
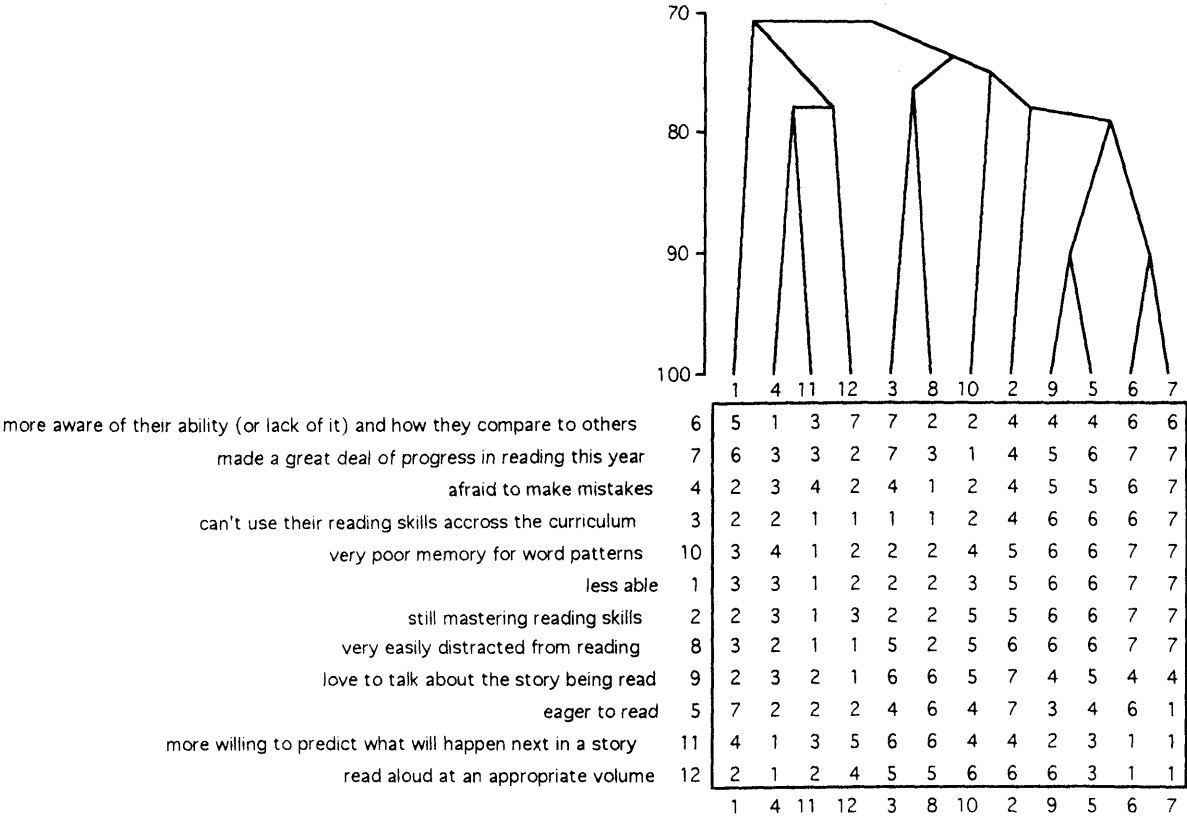
Element Links

E2 linked to E7 at 100.0
 E3 linked to E11 at 98.6
 E2 linked to E5 at 95.8
 E4 linked to E8 at 91.7
 E6 linked to E12 at 88.9
 E6 linked to E9 at 83.3
 E8 linked to E10 at 83.3
 E3 linked to E4 at 80.6
 E7 linked to E11 at 80.6
 E1 linked to E10 at 68.1
 E5 linked to E12 at 52.8

Construct Links

L4 linked to L11 at 100.0
L10 linked to R12 at 88.9
L5 linked to L10 at 87.5
L7 linked to L9 at 87.5
L4 linked to L9 at 86.1
L1 linked to R12 at 84.7
L1 linked to L3 at 83.3
L3 linked to L8 at 83.3
L5 linked to L7 at 80.6
L2 linked to L11 at 76.4
L6 linked to L8 at 68.1

FOCUS: T19 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mrs OW T19 phase 1

FOCUS Mrs OW T19 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	64	69	71	60	53	43	71	53	67	71	71
E2	*	64	100	64	54	76	61	51	62	78	75	49	49
E3	*	69	64	100	54	60	47	43	76	56	67	62	71
E4	*	71	54	54	100	56	49	50	67	57	71	78	69
E5	*	60	76	60	56	100	79	75	47	90	65	50	44
E6	*	53	61	47	49	79	100	90	32	75	44	35	32
E7	*	43	51	43	50	75	90	100	22	74	40	36	33
E8	*	71	62	76	67	47	32	22	100	46	74	69	72
E9	*	53	78	56	57	90	75	74	46	100	67	49	46
E10	*	67	75	67	71	65	44	40	74	67	100	60	65
E11	*	71	49	62	78	50	35	36	69	49	60	100	78
E12	*	71	49	71	69	44	32	33	72	46	65	78	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	94	31	83	62	67	79	89	67	97	82	65
R2	*	94	100	33	81	60	64	74	89	69	94	82	62
R3	*	31	33	100	39	57	56	46	33	53	33	46	54
R4	*	83	81	39	100	62	75	82	78	69	81	79	71
R5	*	62	60	57	62	100	62	64	65	76	62	56	56
R6	*	67	64	56	75	62	100	79	67	61	64	65	65
R7	*	79	74	46	82	64	79	100	76	65	76	72	72
R8	*	89	89	33	78	65	67	76	100	75	89	74	57
R9	*	67	69	53	69	76	61	65	75	100	67	57	49
R10	*	97	94	33	81	62	64	76	89	67	100	85	65
R11	*	82	82	46	79	56	65	72	74	57	85	100	81
R12	*	65	62	54	71	56	65	72	57	49	65	81	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	36	39	89	44	60	56	46	39	58	39	49	57
R2	*	39	36	86	47	62	56	51	36	56	39	49	62
R3	*	89	86	25	86	57	67	74	83	64	86	74	60
R4	*	44	47	86	53	71	58	51	44	61	47	54	57
R5	*	60	62	57	71	44	62	56	57	54	62	72	69
R6	*	56	56	67	58	62	47	49	53	69	58	68	57
R7	*	46	51	74	51	56	49	39	40	57	49	56	50
R8	*	39	36	83	44	57	53	40	31	47	39	51	65
R9	*	58	56	64	61	54	69	57	47	53	58	68	74
R10	*	39	39	86	47	62	58	49	39	58	42	49	57
R11	*	49	49	74	54	72	68	56	51	68	49	50	50
R12	*	57	62	60	57	69	57	50	65	74	57	50	39

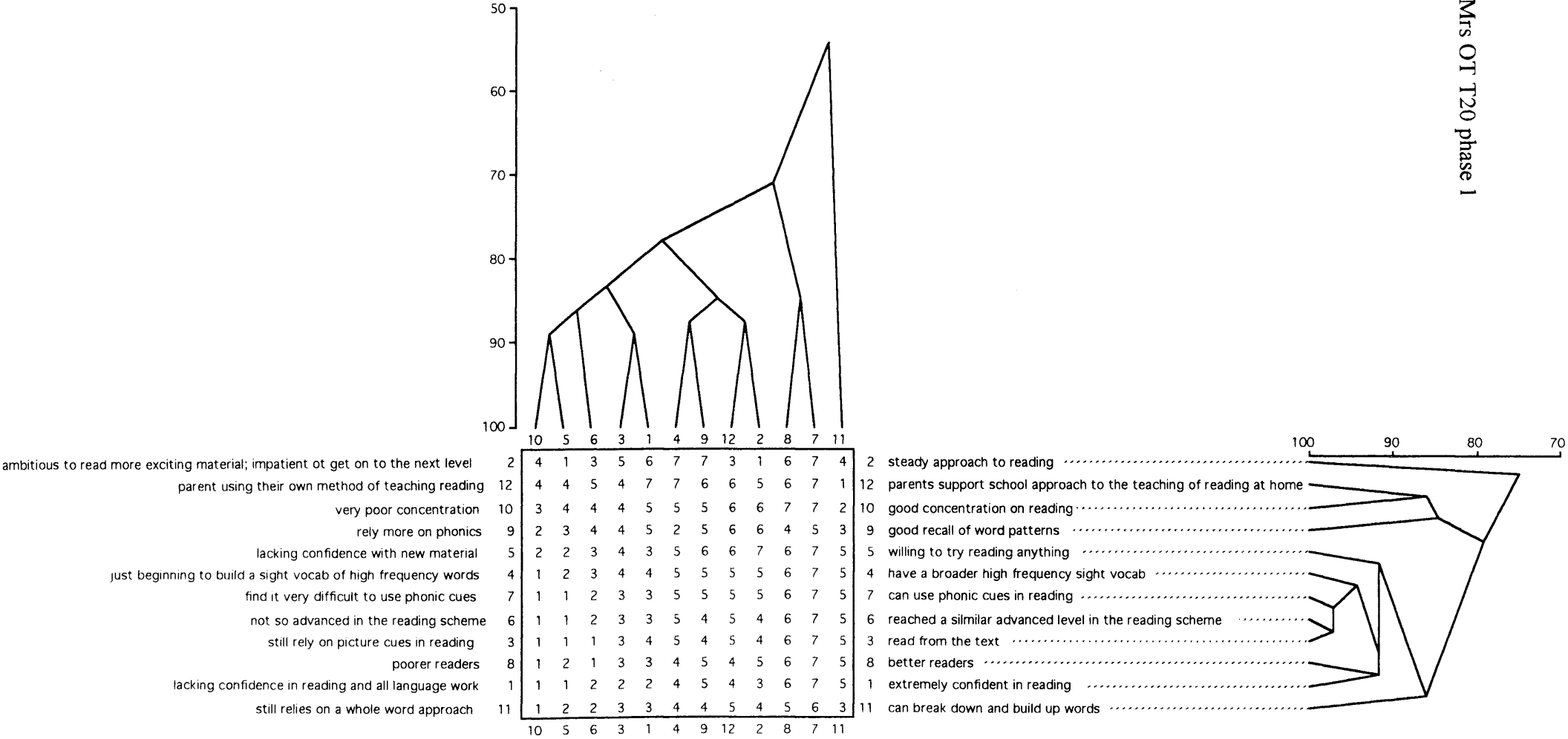
Element Links

E5 linked to E9 at 90.3
 E6 linked to E7 at 90.3
 E5 linked to E6 at 79.2
 E2 linked to E9 at 77.8
 E4 linked to E11 at 77.8
 E11 linked to E12 at 77.8
 E3 linked to E8 at 76.4
 E2 linked to E10 at 75.0
 E8 linked to E10 at 73.6
 E1 linked to E4 at 70.8
 E3 linked to E12 at 70.8

Construct Links

L1 linked to L10	at	97.2
L1 linked to L2	at	94.4
L2 linked to L8	at	88.9
R3 linked to L4	at	86.1
R3 linked to L10	at	86.1
L4 linked to L7	at	81.9
R11 linked to R12	at	80.6
L6 linked to L7	at	79.2
L5 linked to L9	at	76.4
L8 linked to L9	at	75.0
L5 linked to R11	at	72.2

FOCUS: T20 1st grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mrs OT T20 phase 1

FOCUS Mrs OT T20 phase 1

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	71	89	78	67	78	54	64	79	64	64	72
E2	*	71	100	71	74	57	62	61	71	83	46	71	88
E3	*	89	71	100	72	75	83	46	61	74	72	72	69
E4	*	78	74	72	100	50	58	68	78	88	50	78	83
E5	*	67	57	75	50	100	86	21	36	49	89	53	50
E6	*	78	62	83	58	86	100	32	47	60	83	58	61
E7	*	54	61	46	68	21	32	100	85	72	18	54	68
E8	*	64	71	61	78	36	47	85	100	82	33	69	81
E9	*	79	83	74	88	49	60	72	82	100	46	76	85
E10	*	64	46	72	50	89	83	18	33	46	100	53	44
E11	*	64	71	72	78	53	58	54	69	76	53	100	75
E12	*	72	88	69	83	50	61	68	81	85	44	75	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	50	89	86	47	47	92	92	62	58	56	58
R2	*	50	100	50	53	72	72	53	53	62	69	67	75
R3	*	89	50	100	92	47	50	94	92	62	56	58	53
R4	*	86	53	92	100	50	53	94	92	65	58	61	56
R5	*	47	72	47	50	100	86	44	47	79	83	81	75
R6	*	47	72	50	53	86	100	47	50	71	75	92	67
R7	*	92	53	94	94	44	47	100	94	62	56	56	53
R8	*	92	53	92	92	47	50	94	100	62	58	58	56
R9	*	62	62	62	65	79	71	62	62	100	85	79	74
R10	*	58	69	56	58	83	75	56	58	85	100	75	86
R11	*	56	67	58	61	81	92	56	58	79	75	100	67
R12	*	58	75	53	56	75	67	53	56	74	86	67	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	44	72	47	53	81	92	47	50	68	69	86	61
R2	*	72	39	72	75	56	53	72	69	65	56	58	50
R3	*	47	72	50	53	83	97	47	50	71	75	89	67
R4	*	53	75	53	56	92	92	50	53	79	83	86	75
R5	*	81	56	83	92	44	47	89	86	62	56	56	53
R6	*	92	53	97	92	47	50	97	92	65	58	58	56
R7	*	47	72	47	50	89	97	44	47	74	78	89	69
R8	*	50	69	50	53	86	92	47	50	74	75	89	67
R9	*	68	65	71	79	62	65	74	74	64	62	65	60
R10	*	69	56	75	83	56	58	78	75	62	56	61	50
R11	*	86	58	89	86	56	58	89	89	65	61	61	58
R12	*	61	50	67	75	53	56	69	67	60	50	58	44

Element Links

E1 linked to E3 at 88.9
 E5 linked to E10 at 88.9
 E2 linked to E12 at 87.5
 E4 linked to E9 at 87.5
 E5 linked to E6 at 86.1
 E7 linked to E8 at 84.7
 E9 linked to E12 at 84.7
 E3 linked to E6 at 83.3
 E1 linked to E4 at 77.8
 E2 linked to E8 at 70.8
 E7 linked to E11 at 54.2

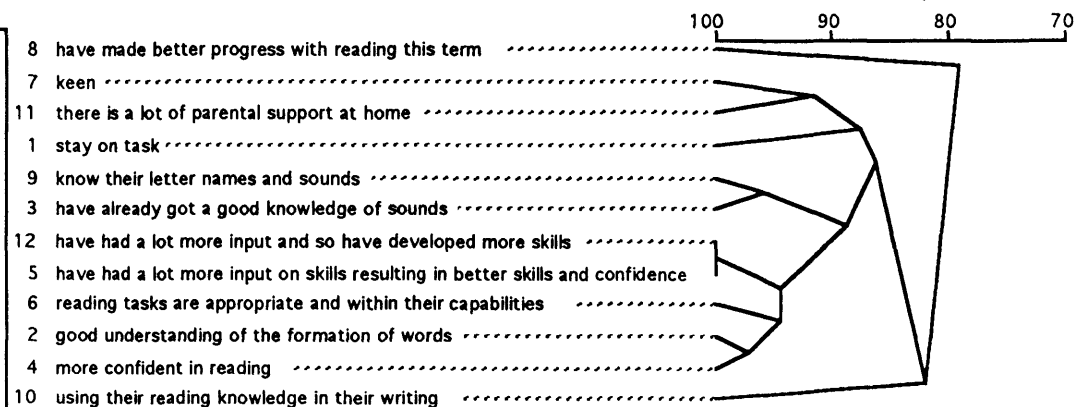
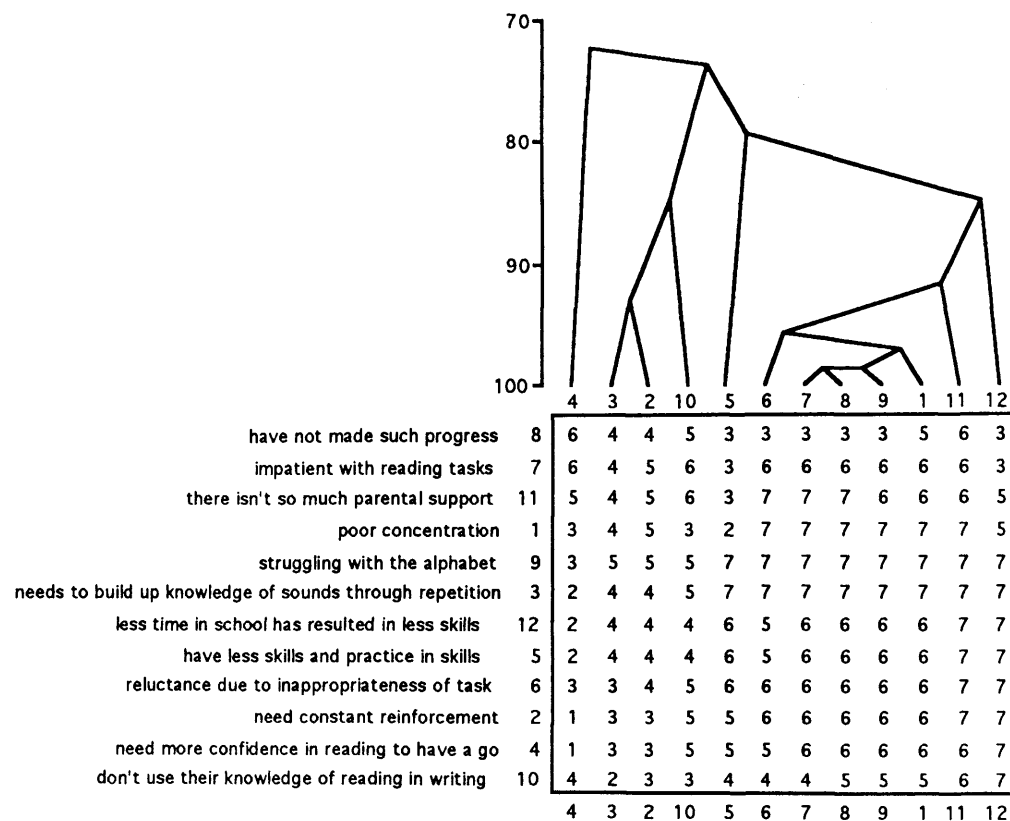
Construct Links

R3	linked to	L6	at	97.2
L6	linked to	R7	at	97.2
R4	linked to	R7	at	94.4
R1	linked to	R8	at	91.7
R3	linked to	R8	at	91.7
R4	linked to	L5	at	91.7
R1	linked to	L11	at	86.1
L10	linked to	L12	at	86.1
L9	linked to	L10	at	84.7
L5	linked to	L9	at	79.2
L2	linked to	L12	at	75.0

Appendix K

Main Study Phase 2 FOCUSED Repertory Grids

FOCUS: T1 2nd grid.
 Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mrs GM T1 phase 2

FOCUS Mrs GM T1 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	67	60	49	78	90	94	96	97	76	92	79
E2	*	67	100	93	74	67	71	67	65	67	85	58	60
E3	*	60	93	100	72	68	64	60	58	60	81	51	56
E4	*	49	74	72	100	49	50	46	44	46	69	43	36
E5	*	78	67	68	49	100	79	81	79	81	74	69	79
E6	*	90	71	64	50	79	100	96	94	93	78	82	75
E7	*	94	67	60	46	81	96	100	99	97	74	86	79
E8	*	96	65	58	44	79	94	99	100	99	72	88	81
E9	*	97	67	60	46	81	93	97	99	100	74	89	82
E10	*	76	85	81	69	74	78	74	72	74	100	68	61
E11	*	92	58	51	43	69	82	86	88	89	68	100	85
E12	*	79	60	56	36	79	75	79	81	82	61	85	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	76	85	74	79	79	79	69	36	53	43	46
R2	*	76	100	86	97	92	94	78	74	35	54	47	42
R3	*	85	86	100	83	89	89	72	68	24	49	39	36
R4	*	74	97	83	100	92	92	78	76	38	57	50	44
R5	*	79	92	89	92	100	94	78	79	35	57	50	47
R6	*	79	94	89	92	94	100	81	74	35	57	47	44
R7	*	79	78	72	78	78	81	100	68	43	65	47	58
R8	*	69	74	68	76	79	74	68	100	56	75	71	65
R9	*	36	35	24	38	35	35	43	56	100	67	82	85
R10	*	53	54	49	57	57	57	65	75	67	100	71	79
R11	*	43	47	39	50	50	47	47	71	82	71	100	78
R12	*	46	42	36	44	47	44	58	65	85	79	78	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	33	43	38	46	46	46	49	61	86	69	88	79
R2	*	43	36	31	39	42	39	56	62	82	79	78	92
R3	*	38	31	25	33	36	33	47	57	96	68	81	89
R4	*	46	39	33	42	44	42	58	65	79	82	78	92
R5	*	46	42	36	44	47	44	58	65	85	79	78	100
R6	*	46	39	33	42	44	42	53	65	88	79	81	94
R7	*	49	56	47	58	58	53	47	79	74	71	92	78
R8	*	61	62	57	65	65	65	79	67	64	78	68	79
R9	*	86	82	96	79	85	88	74	64	22	53	38	35
R10	*	69	79	68	82	79	79	71	78	53	67	60	57
R11	*	88	78	81	78	78	81	92	68	38	60	42	50
R12	*	79	92	89	92	100	94	78	79	35	57	50	47

Element Links

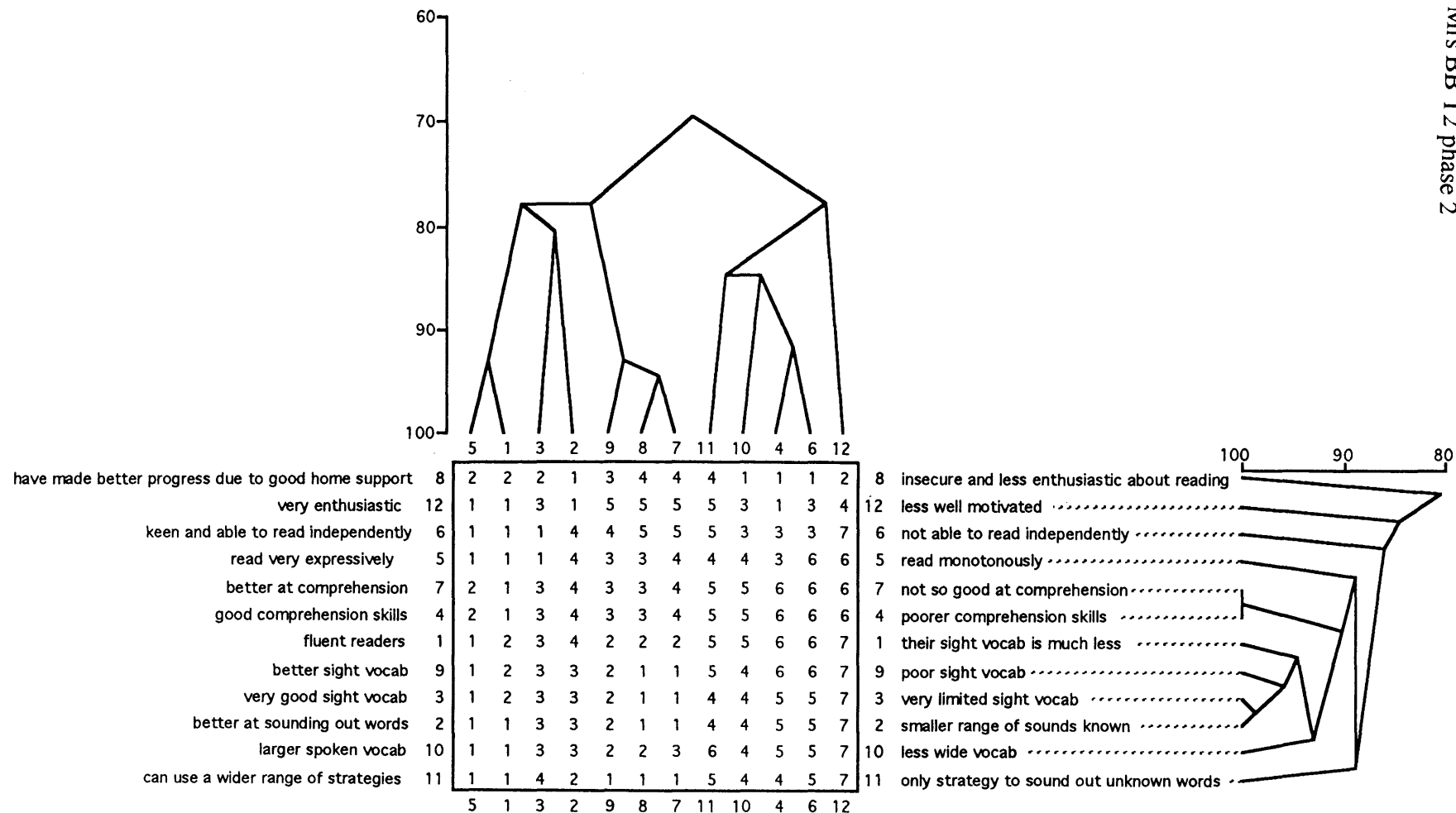
E7 linked to E8 at 98.6
 E8 linked to E9 at 98.6
 E1 linked to E9 at 97.2
 E6 linked to E7 at 95.8
 E2 linked to E3 at 93.1
 E1 linked to E11 at 91.7
 E2 linked to E10 at 84.7
 E11 linked to E12 at 84.7
 E5 linked to E6 at 79.2
 E5 linked to E10 at 73.6
 E3 linked to E4 at 72.2

Construct Links

R5 linked to L12 at 100.0
R2 linked to R4 at 97.2
R3 linked to L9 at 95.8
R2 linked to R6 at 94.4
R5 linked to R6 at 94.4
R7 linked to L11 at 91.7
R3 linked to L12 at 88.9
R1 linked to L11 at 87.5
R1 linked to L9 at 86.1
R4 linked to L10 at 81.9
R7 linked to L8 at 79.2

FOCUS: T2 2nd grid.
 Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading

FOCUS Mrs BB T2 phase 2



FOCUS Mrs BB T2 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	69	78	49	93	40	68	74	78	56	43	21
E2	*	69	100	81	74	68	68	76	71	78	83	71	49
E3	*	78	81	100	65	76	62	68	71	78	78	65	43
E4	*	49	74	65	100	47	92	50	47	54	85	75	69
E5	*	93	68	76	47	100	39	72	78	76	54	42	19
E6	*	40	68	62	92	39	100	50	44	51	85	78	78
E7	*	68	76	68	50	72	50	100	94	88	65	69	39
E8	*	74	71	71	47	78	44	94	100	93	60	64	33
E9	*	78	78	78	54	76	51	88	93	100	67	65	38
E10	*	56	83	78	85	54	85	65	60	67	100	85	62
E11	*	43	71	65	75	42	78	69	64	65	85	100	69
E12	*	21	49	43	69	19	78	39	33	38	62	69	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	89	90	90	82	74	90	58	94	90	85	64
R2	*	89	100	99	82	82	74	82	61	94	93	93	58
R3	*	90	99	100	81	81	72	81	62	96	92	92	60
R4	*	90	82	81	100	89	78	100	65	85	86	78	68
R5	*	82	82	81	89	100	86	89	71	79	83	78	60
R6	*	74	74	72	78	86	100	78	71	71	78	72	49
R7	*	90	82	81	100	89	78	100	65	85	86	78	68
R8	*	58	61	62	65	71	71	65	100	58	62	60	47
R9	*	94	94	96	85	79	71	85	58	100	90	90	58
R10	*	90	93	92	86	83	78	86	62	90	100	89	60
R11	*	85	93	92	78	78	72	78	60	90	89	100	54
R12	*	64	58	60	68	60	49	68	47	58	60	54	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	42	42	43	49	51	60	49	61	39	43	40	64
R2	*	42	42	43	49	51	57	49	53	39	43	40	67
R3	*	43	43	44	50	53	58	50	54	40	44	42	65
R4	*	49	49	50	56	58	64	56	68	46	50	47	71
R5	*	51	51	53	58	56	58	58	60	49	53	47	74
R6	*	60	57	58	64	58	50	64	51	54	58	53	85
R7	*	49	49	50	56	58	64	56	68	46	50	47	71
R8	*	61	53	54	68	60	51	68	42	56	54	49	81
R9	*	39	39	40	46	49	54	46	56	36	40	38	64
R10	*	43	43	44	50	53	58	50	54	40	44	42	71
R11	*	40	40	42	47	47	53	47	49	38	42	39	68
R12	*	64	67	65	71	74	85	71	81	64	71	68	47

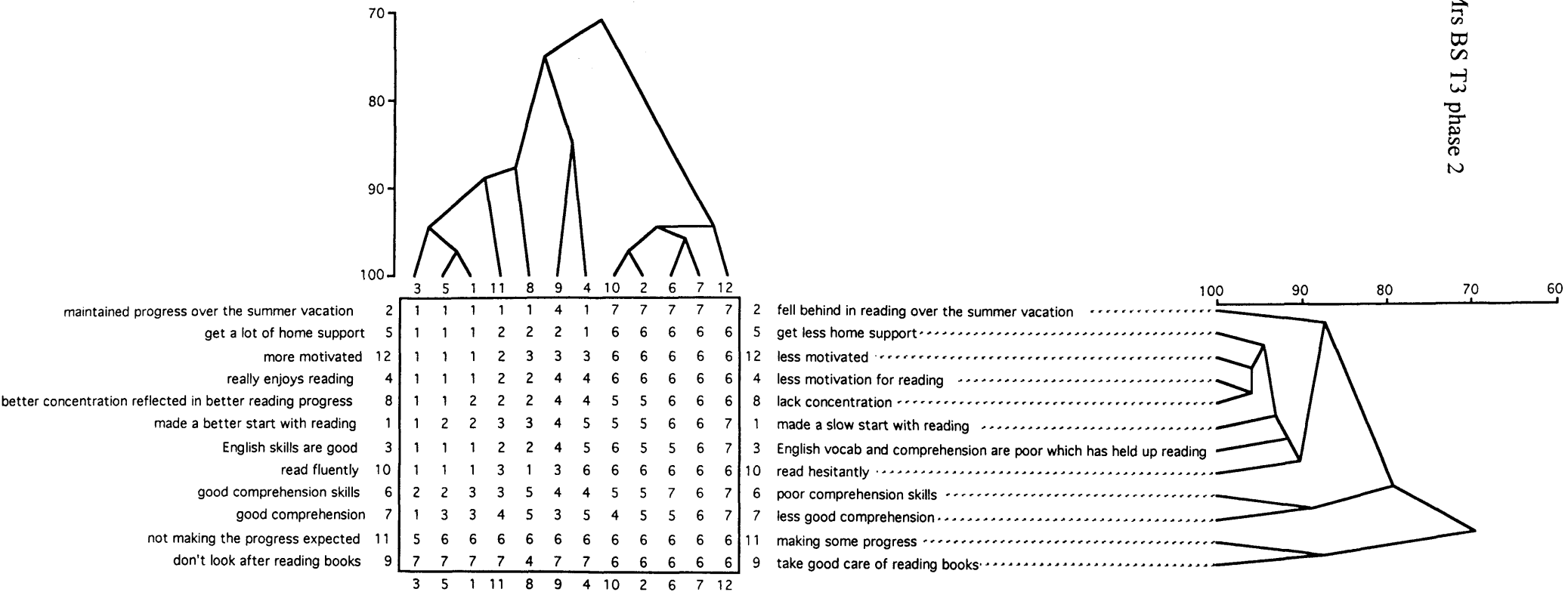
Element Links

E7 linked to E8 at 94.4
 E1 linked to E5 at 93.1
 E8 linked to E9 at 93.1
 E4 linked to E6 at 91.7
 E4 linked to E10 at 84.7
 E10 linked to E11 at 84.7
 E2 linked to E3 at 80.6
 E1 linked to E3 at 77.8
 E2 linked to E9 at 77.8
 E6 linked to E12 at 77.8
 E7 linked to E11 at 69.4

Construct Links

R4 linked to R7 at 100.0
R2 linked to R3 at 98.6
R3 linked to R9 at 95.8
R1 linked to R9 at 94.4
R2 linked to R10 at 93.1
R1 linked to R4 at 90.3
R5 linked to R7 at 88.9
R10 linked to R11 at 88.9
R5 linked to R6 at 86.1
R6 linked to L12 at 84.7
R8 linked to L12 at 80.6

FOCUS: T3 2nd grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mrs BS T3 phase 2

FOCUS Mrs BS T3 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	43	92	69	97	38	36	82	74	43	89	31
E2	*	43	100	35	74	40	94	93	56	69	97	54	88
E3	*	92	35	100	61	94	29	28	74	65	35	81	22
E4	*	69	74	61	100	67	68	67	74	85	71	78	61
E5	*	97	40	94	67	100	35	33	79	71	40	86	28
E6	*	38	94	29	68	35	100	96	50	64	92	49	93
E7	*	36	93	28	67	33	96	100	49	62	93	47	94
E8	*	82	56	74	74	79	50	49	100	75	53	88	43
E9	*	74	69	65	85	71	64	62	75	100	69	82	57
E10	*	43	97	35	71	40	92	93	53	69	100	54	88
E11	*	89	54	81	78	86	49	47	88	82	54	100	42
E12	*	31	88	22	61	28	93	94	43	57	88	42	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	31	92	42	38	53	89	93	60	38	61	88
R2	*	31	100	25	86	88	75	39	26	57	82	50	21
R3	*	92	25	100	36	32	47	83	93	54	32	61	90
R4	*	42	86	36	100	93	83	50	40	60	93	64	35
R5	*	38	88	32	93	100	76	46	33	67	89	57	28
R6	*	53	75	47	83	76	100	56	51	54	79	69	46
R7	*	89	39	83	50	46	56	100	82	60	46	58	79
R8	*	93	26	93	40	33	51	82	100	56	36	65	92
R9	*	60	57	54	60	67	54	60	56	100	56	29	56
R10	*	38	82	32	93	89	79	46	36	56	100	65	33
R11	*	61	50	61	64	57	69	58	65	29	65	100	62
R12	*	88	21	90	35	28	46	79	92	56	33	62	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	47	78	42	89	82	92	56	46	57	88	67	43
R2	*	78	8	83	22	15	33	67	82	43	24	53	85
R3	*	42	83	36	94	88	83	50	40	60	90	61	38
R4	*	89	22	94	36	29	47	78	96	57	32	61	96
R5	*	82	15	88	29	22	40	74	89	50	31	65	94
R6	*	92	33	83	47	40	53	89	88	60	43	58	82
R7	*	56	67	50	78	74	89	58	54	57	79	69	51
R8	*	46	82	40	96	89	88	54	44	61	89	62	39
R9	*	57	43	60	57	50	60	57	61	22	58	88	64
R10	*	88	24	90	32	31	43	79	89	58	28	57	92
R11	*	67	53	61	61	65	58	69	62	88	57	36	62
R12	*	43	85	38	96	94	82	51	39	64	92	62	33

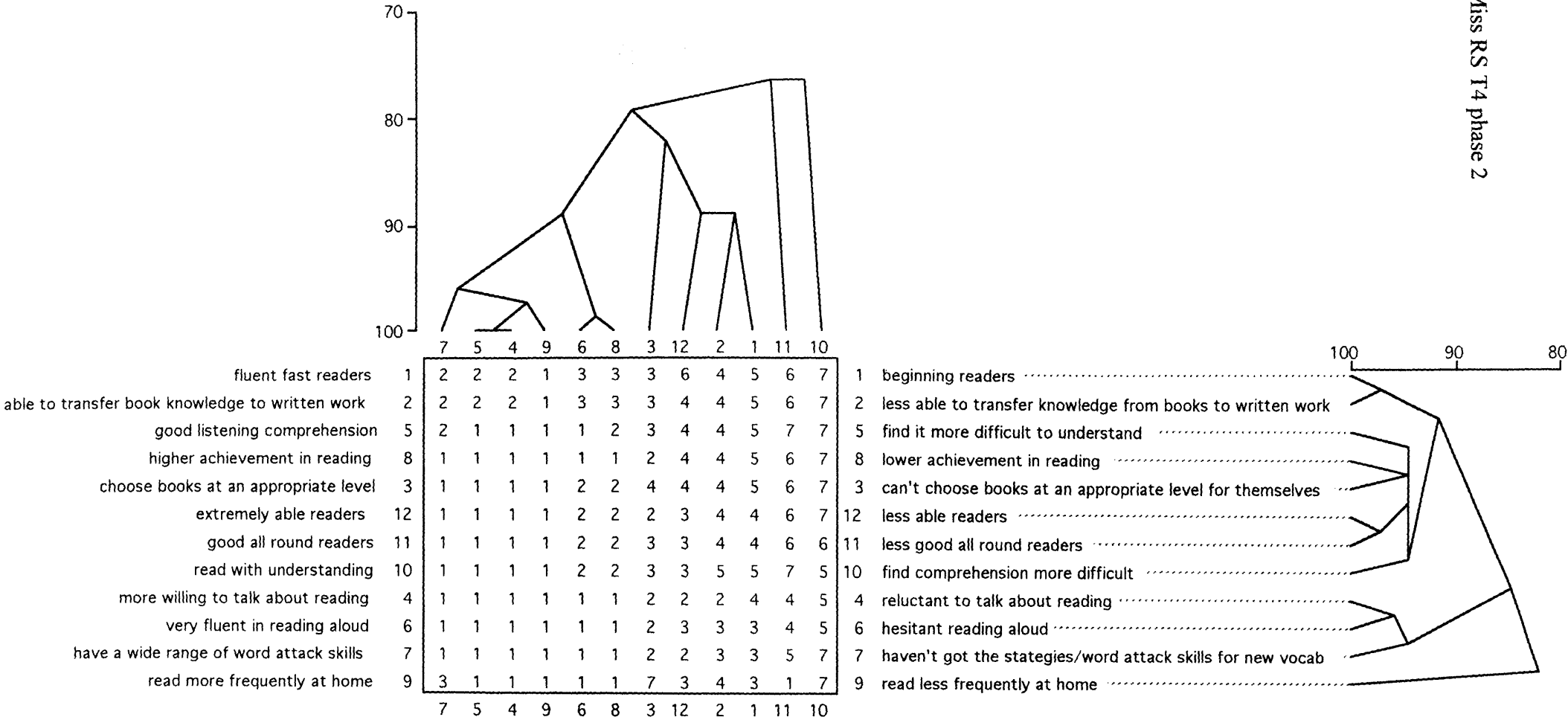
Element Links

E1 linked to E5 at 97.2
 E2 linked to E10 at 97.2
 E6 linked to E7 at 95.8
 E2 linked to E6 at 94.4
 E3 linked to E5 at 94.4
 E7 linked to E12 at 94.4
 E1 linked to E11 at 88.9
 E8 linked to E11 at 87.5
 E4 linked to E9 at 84.7
 E8 linked to E9 at 75.0
 E4 linked to E10 at 70.8

Construct Links

L4	linked	to	R8	at	95.8
L4	linked	to	R12	at	95.8
L5	linked	to	R12	at	94.4
R1	linked	to	R8	at	93.1
R1	linked	to	R3	at	91.7
R3	linked	to	L10	at	90.3
L6	linked	to	R7	at	88.9
L2	linked	to	L5	at	87.5
R9	linked	to	L11	at	87.5
L6	linked	to	L10	at	79.2
R7	linked	to	L11	at	69.4

FOCUS: T4 2nd grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Miss RS T4 phase 2

FOCUS Miss RS T4 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	89	68	49	49	57	53	58	46	64	76	83
E2	*	89	100	79	57	57	65	61	67	54	56	65	89
E3	*	68	79	100	69	69	78	74	79	67	43	44	82
E4	*	49	57	69	100	100	92	96	90	97	12	31	62
E5	*	49	57	69	100	100	92	96	90	97	12	31	62
E6	*	57	65	78	92	92	100	88	99	89	21	39	71
E7	*	53	61	74	96	96	88	100	89	93	17	29	67
E8	*	58	67	79	90	90	99	89	100	88	22	40	72
E9	*	46	54	67	97	97	89	93	88	100	10	28	60
E10	*	64	56	43	12	12	21	17	22	10	100	76	50
E11	*	76	65	44	31	31	39	29	40	28	76	100	62
E12	*	83	89	82	62	62	71	67	72	60	50	62	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	47	42	74	89	75	78	36	71	83	86	42
R2	*	47	100	92	40	42	44	39	89	49	42	44	89
R3	*	42	92	100	35	36	39	33	94	40	36	39	94
R4	*	74	40	35	100	82	96	93	29	78	85	88	32
R5	*	89	42	36	82	100	83	86	31	79	92	92	33
R6	*	75	44	39	96	83	100	94	33	82	86	89	33
R7	*	78	39	33	93	86	94	100	28	82	83	89	28
R8	*	36	89	94	29	31	33	28	100	40	31	33	94
R9	*	71	49	40	78	79	82	82	40	100	74	79	40
R10	*	83	42	36	85	92	86	83	31	74	100	94	33
R11	*	86	44	39	88	92	89	89	33	79	94	100	36
R12	*	42	89	94	32	33	33	28	94	40	33	36	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	44	97	89	43	39	44	42	86	49	42	44	86
R2	*	97	50	44	76	92	78	81	39	74	86	89	42
R3	*	89	44	39	82	94	83	86	33	79	92	94	36
R4	*	43	76	82	31	32	32	26	88	33	35	35	88
R5	*	39	92	94	32	33	36	31	94	43	33	36	92
R6	*	44	78	83	32	36	33	28	89	35	39	36	89
R7	*	42	81	86	26	31	28	22	92	32	33	31	92
R8	*	86	39	33	88	94	89	92	28	79	89	92	31
R9	*	49	74	79	33	43	35	32	79	25	43	40	79
R10	*	42	86	92	35	33	39	33	89	43	33	36	92
R11	*	44	89	94	35	36	36	31	92	40	36	39	97
R12	*	86	42	36	88	92	89	92	31	79	92	97	33

Element Links

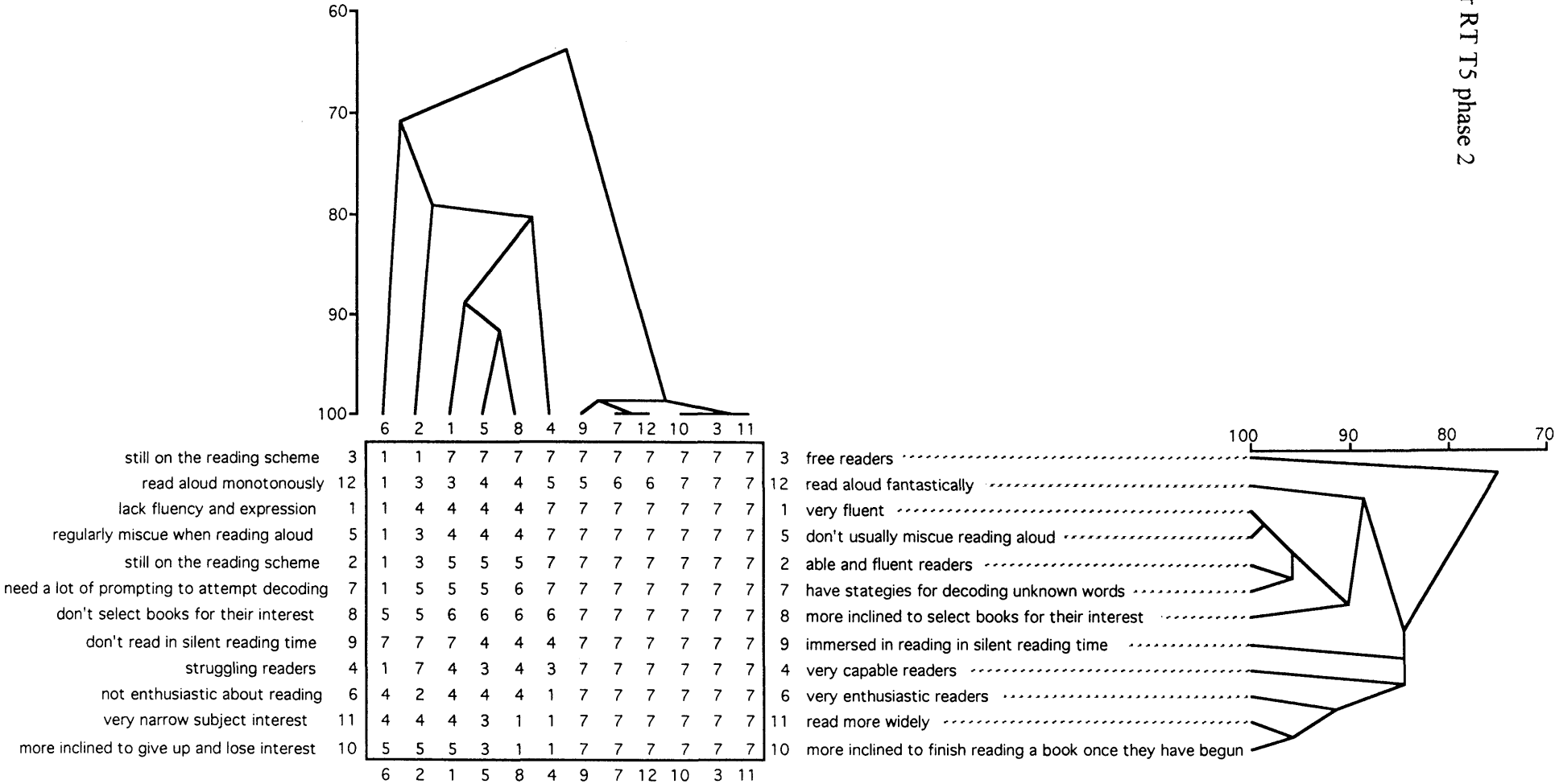
E4 linked to E5 at 100.0
 E6 linked to E8 at 98.6
 E4 linked to E9 at 97.2
 E5 linked to E7 at 95.8
 E1 linked to E2 at 88.9
 E2 linked to E12 at 88.9
 E6 linked to E9 at 88.9
 E3 linked to E12 at 81.9
 E3 linked to E8 at 79.2
 E1 linked to E11 at 76.4
 E10 linked to E11 at 76.4

Construct Links

R1	linked to	L2	at	97.2
R11	linked to	L12	at	97.2
R4	linked to	R6	at	95.8
L3	linked to	L8	at	94.4
L3	linked to	L12	at	94.4
R5	linked to	L8	at	94.4
R6	linked to	R7	at	94.4
R10	linked to	R11	at	94.4
L2	linked to	R5	at	91.7
R4	linked to	R10	at	84.7
R7	linked to	R9	at	81.9

FOCUS: T5 2nd grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading

FOCUS Mr RT T5 phase 2



FOCUS Mr RT T5 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	79	64	64	89	64	65	83	67	64	64	65
E2	*	79	100	51	49	68	71	53	62	54	51	51	53
E3	*	64	51	100	61	56	28	99	53	97	100	100	99
E4	*	64	49	61	100	75	31	62	81	64	61	61	62
E5	*	89	68	56	75	100	56	57	92	58	56	56	57
E6	*	64	71	28	31	56	100	29	47	31	28	28	29
E7	*	65	53	99	62	57	29	100	54	99	99	99	100
E8	*	83	62	53	81	92	47	54	100	56	53	53	54
E9	*	67	54	97	64	58	31	99	56	100	97	97	99
E10	*	64	51	100	61	56	28	99	53	97	100	100	99
E11	*	64	51	100	61	56	28	99	53	97	100	100	99
E12	*	65	53	99	62	57	29	100	54	99	99	99	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	94	83	33	32	43	93	83	38	78	82	89
R2	*	94	100	89	33	26	38	96	86	35	75	76	86
R3	*	83	89	100	28	15	26	88	83	29	64	65	75
R4	*	33	33	28	100	88	85	29	33	85	28	29	42
R5	*	32	26	15	88	100	86	28	32	78	40	39	38
R6	*	43	38	26	85	86	100	39	38	81	32	33	43
R7	*	93	96	88	29	28	39	100	90	31	76	75	82
R8	*	83	86	83	33	32	38	90	100	24	81	76	75
R9	*	38	35	29	85	78	81	31	24	100	24	28	49
R10	*	78	75	64	28	40	32	76	81	24	100	96	72
R11	*	82	76	65	29	39	33	75	76	28	96	100	76
R12	*	89	86	75	42	38	43	82	75	49	72	76	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	33	28	17	89	99	85	26	31	79	39	40	39
R2	*	28	22	11	83	96	82	24	28	76	42	40	36
R3	*	17	11	0	72	85	74	12	17	71	36	35	25
R4	*	89	83	72	28	35	38	85	78	35	83	85	83
R5	*	99	96	85	35	31	42	92	82	39	76	81	90
R6	*	85	82	74	38	42	36	78	79	36	88	92	82
R7	*	26	24	12	85	92	78	19	24	78	40	42	38
R8	*	31	28	17	78	82	79	24	22	85	36	40	42
R9	*	79	76	71	35	39	36	78	85	25	82	78	74
R10	*	39	42	36	83	76	88	40	36	82	22	26	44
R11	*	40	40	35	85	81	92	42	40	78	26	31	40
R12	*	39	36	25	83	90	82	38	42	74	44	40	44

Element Links

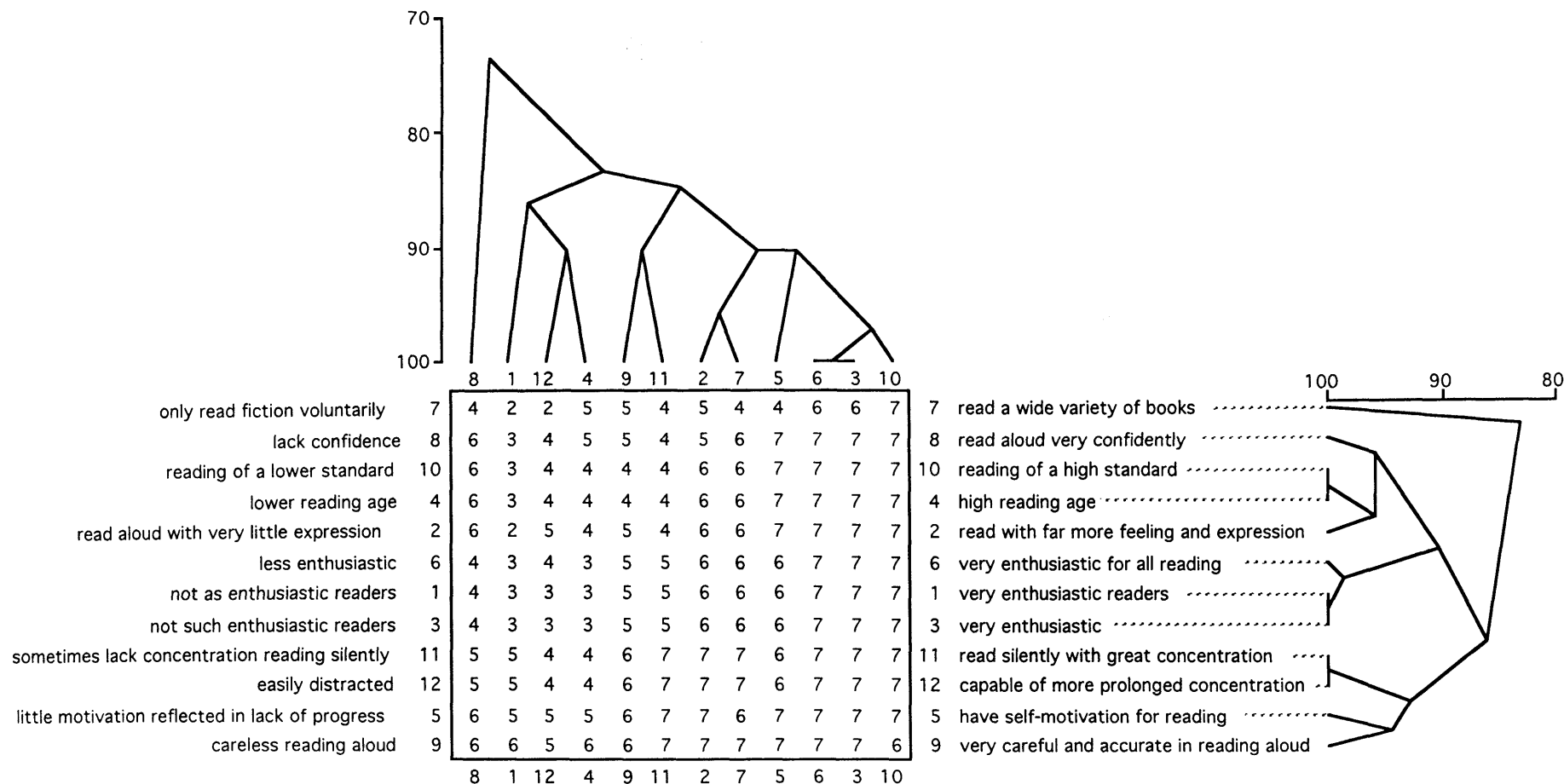
E3 linked to E10 at 100.0
 E3 linked to E11 at 100.0
 E7 linked to E12 at 100.0
 E7 linked to E9 at 98.6
 E10 linked to E12 at 98.6
 E5 linked to E8 at 91.7
 E1 linked to E5 at 88.9
 E4 linked to E8 at 80.6
 E1 linked to E2 at 79.2
 E2 linked to E6 at 70.8
 E4 linked to E9 at 63.9

Construct Links

L1 linked to R5	at	98.6
L2 linked to L7	at	95.8
L2 linked to R5	at	95.8
L10 linked to L11	at	95.8
R6 linked to L11	at	91.7
L7 linked to L8	at	90.3
L1 linked to L12	at	88.9
R4 linked to R6	at	84.7
R4 linked to R9	at	84.7
L8 linked to R9	at	84.7
L3 linked to L12	at	75.0

FOCUS: T6 2nd grid.
 Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading

FOCUS Miss RR T6 phase 2



FOCUS Miss RR T6 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	57	44	85	54	44	58	74	74	44	72	86
E2	*	57	100	88	67	89	88	96	81	83	85	85	62
E3	*	44	88	100	54	90	100	86	71	71	97	72	50
E4	*	85	67	54	100	61	54	65	81	83	54	76	90
E5	*	54	89	90	61	100	90	90	81	78	88	76	60
E6	*	44	88	100	54	90	100	86	71	71	97	72	50
E7	*	58	96	86	65	90	86	100	85	82	83	83	64
E8	*	74	81	71	81	81	71	85	100	83	71	76	79
E9	*	74	83	71	83	78	71	82	83	100	71	90	79
E10	*	44	85	97	54	88	97	83	71	71	100	69	50
E11	*	72	85	72	76	76	72	83	76	90	69	100	75
E12	*	86	62	50	90	60	50	64	79	79	50	75	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	44	44	90	82	46	83	89	76	90	42	86
R2	*	44	100	89	43	35	90	53	42	35	43	83	39
R3	*	44	89	100	46	43	99	56	47	40	46	86	42
R4	*	90	43	46	100	86	47	79	96	81	100	43	85
R5	*	82	35	43	86	100	42	71	88	94	86	29	93
R6	*	46	90	99	47	42	100	57	49	39	47	88	43
R7	*	83	53	56	79	71	57	100	83	65	79	50	72
R8	*	89	42	47	96	88	49	83	100	82	96	42	83
R9	*	76	35	40	81	94	39	65	82	100	81	26	90
R10	*	90	43	46	100	86	47	79	96	81	100	43	85
R11	*	42	83	86	43	29	88	50	42	26	43	100	33
R12	*	86	39	42	85	93	43	72	83	90	85	33	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	44	89	100	46	43	99	56	47	40	46	86	42
R2	*	89	39	44	96	88	43	81	94	82	96	39	83
R3	*	100	44	44	90	82	46	83	89	76	90	42	86
R4	*	46	96	90	47	39	92	54	46	36	47	85	43
R5	*	43	88	82	39	25	83	49	38	22	39	93	29
R6	*	99	43	46	92	83	47	82	90	78	92	43	88
R7	*	56	81	83	54	49	82	61	53	49	54	72	50
R8	*	47	94	89	46	38	90	53	44	35	46	83	42
R9	*	40	82	76	36	22	78	49	35	19	36	90	26
R10	*	46	96	90	47	39	92	54	46	36	47	85	43
R11	*	86	39	42	85	93	43	72	83	90	85	33	100
R12	*	42	83	86	43	29	88	50	42	26	43	100	33

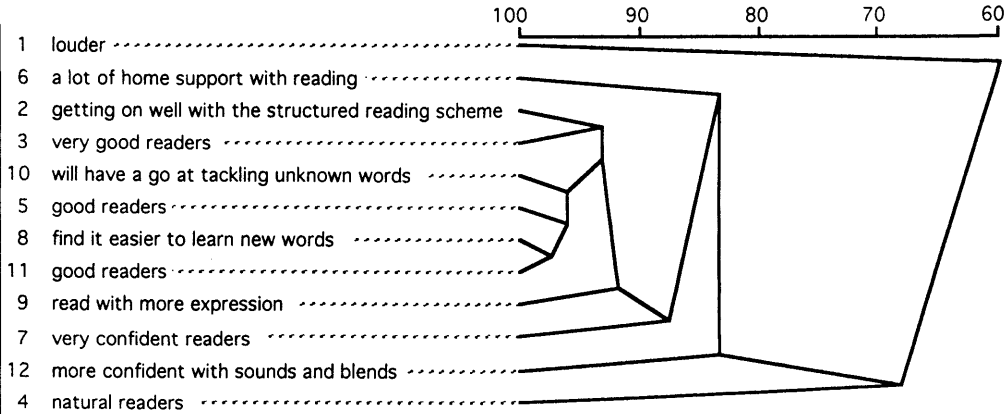
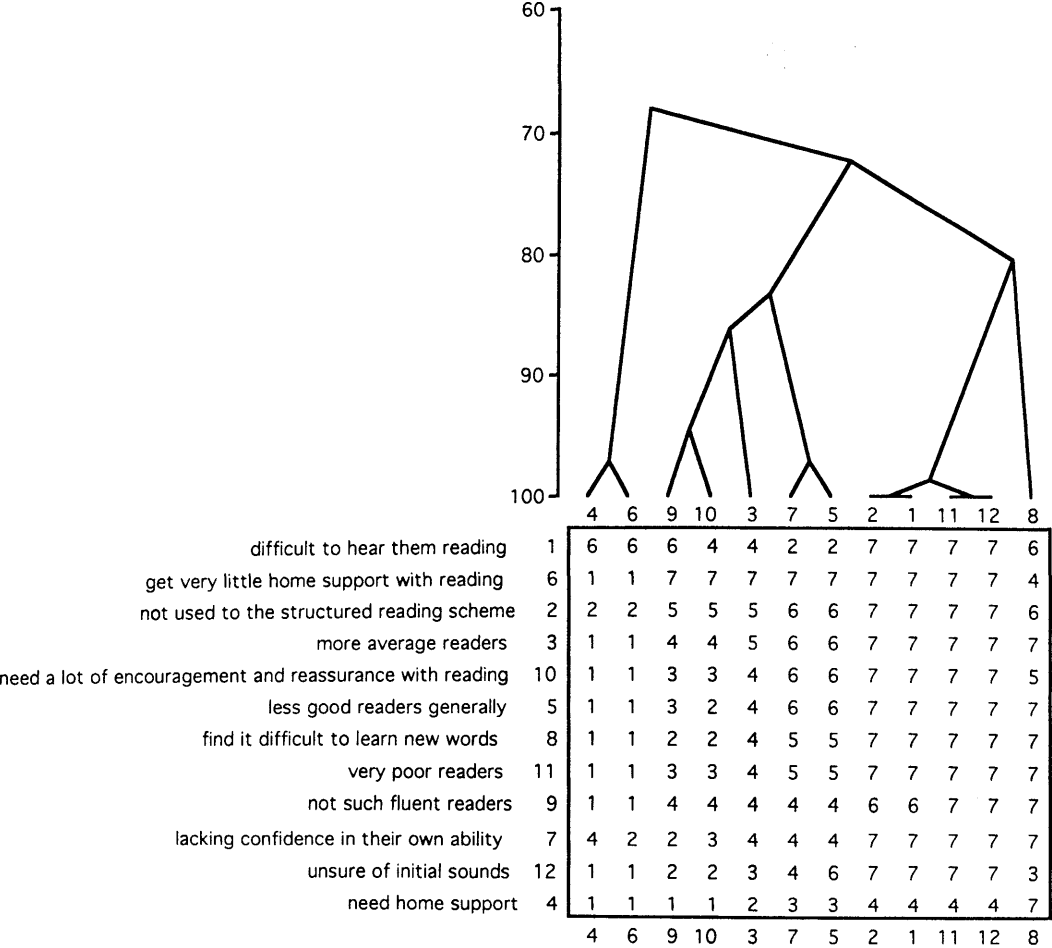
Element Links

E3 linked to E6 at 100.0
 E3 linked to E10 at 97.2
 E2 linked to E7 at 95.8
 E4 linked to E12 at 90.3
 E5 linked to E6 at 90.3
 E5 linked to E7 at 90.3
 E9 linked to E11 at 90.3
 E1 linked to E12 at 86.1
 E2 linked to E11 at 84.7
 E4 linked to E9 at 83.3
 E1 linked to E8 at 73.6

Construct Links

L1 linked to R3 at 100.0
L4 linked to L10 at 100.0
R11 linked to L12 at 100.0
L1 linked to R6 at 98.6
R2 linked to L4 at 95.8
L8 linked to L10 at 95.8
L5 linked to L9 at 94.4
L5 linked to L12 at 93.1
R2 linked to R6 at 90.3
R3 linked to R11 at 86.1
L7 linked to L8 at 83.3

FOCUS: T7 2nd grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mrs RP T7 phase 2

FOCUS Mrs RP T7 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	100	58	18	72	15	69	79	47	44	99	99
E2	*	100	100	58	18	72	15	69	79	47	44	99	99
E3	*	58	58	100	54	81	51	83	60	83	86	57	57
E4	*	18	18	54	100	35	97	38	28	65	65	17	17
E5	*	72	72	81	35	100	32	97	62	64	67	71	71
E6	*	15	15	51	97	32	100	35	25	68	65	14	14
E7	*	69	69	83	38	97	35	100	65	67	69	68	68
E8	*	79	79	60	28	62	25	65	100	49	46	81	81
E9	*	47	47	83	65	64	68	67	49	100	94	46	46
E10	*	44	44	86	65	67	65	69	46	94	100	43	43
E11	*	99	99	57	17	71	14	68	81	46	43	100	100
E12	*	99	99	57	17	71	14	68	81	46	43	100	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	74	53	51	53	43	78	68	51	68	71	56
R2	*	74	100	29	56	32	19	82	83	39	89	86	40
R3	*	53	29	100	46	94	82	36	26	90	29	29	83
R4	*	51	56	46	100	40	56	68	72	47	64	69	43
R5	*	53	32	94	40	100	76	33	24	88	26	26	89
R6	*	43	19	82	56	76	100	35	28	72	25	25	74
R7	*	78	82	36	68	33	35	100	90	46	85	90	39
R8	*	68	83	26	72	24	28	90	100	36	92	97	29
R9	*	51	39	90	47	88	72	46	36	100	39	39	82
R10	*	68	89	29	64	26	25	85	92	39	100	94	32
R11	*	71	86	29	69	26	25	90	97	39	94	100	32
R12	*	56	40	83	43	89	74	39	29	82	32	32	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	33	54	69	57	67	60	50	51	74	57	51	64
R2	*	54	31	93	53	88	83	43	33	83	36	36	79
R3	*	69	93	28	62	25	18	83	90	38	93	93	33
R4	*	57	53	62	47	68	44	46	42	72	44	44	68
R5	*	67	88	25	68	22	24	86	96	35	96	96	28
R6	*	60	83	18	44	24	8	65	72	28	81	75	32
R7	*	50	43	83	46	86	65	44	35	88	38	38	83
R8	*	51	33	90	42	96	72	35	25	89	28	28	90
R9	*	74	83	38	72	35	28	88	89	47	86	92	40
R10	*	57	36	93	44	96	81	38	28	86	31	31	90
R11	*	51	36	93	44	96	75	38	28	92	31	31	88
R12	*	64	79	33	68	28	32	83	90	40	90	88	28

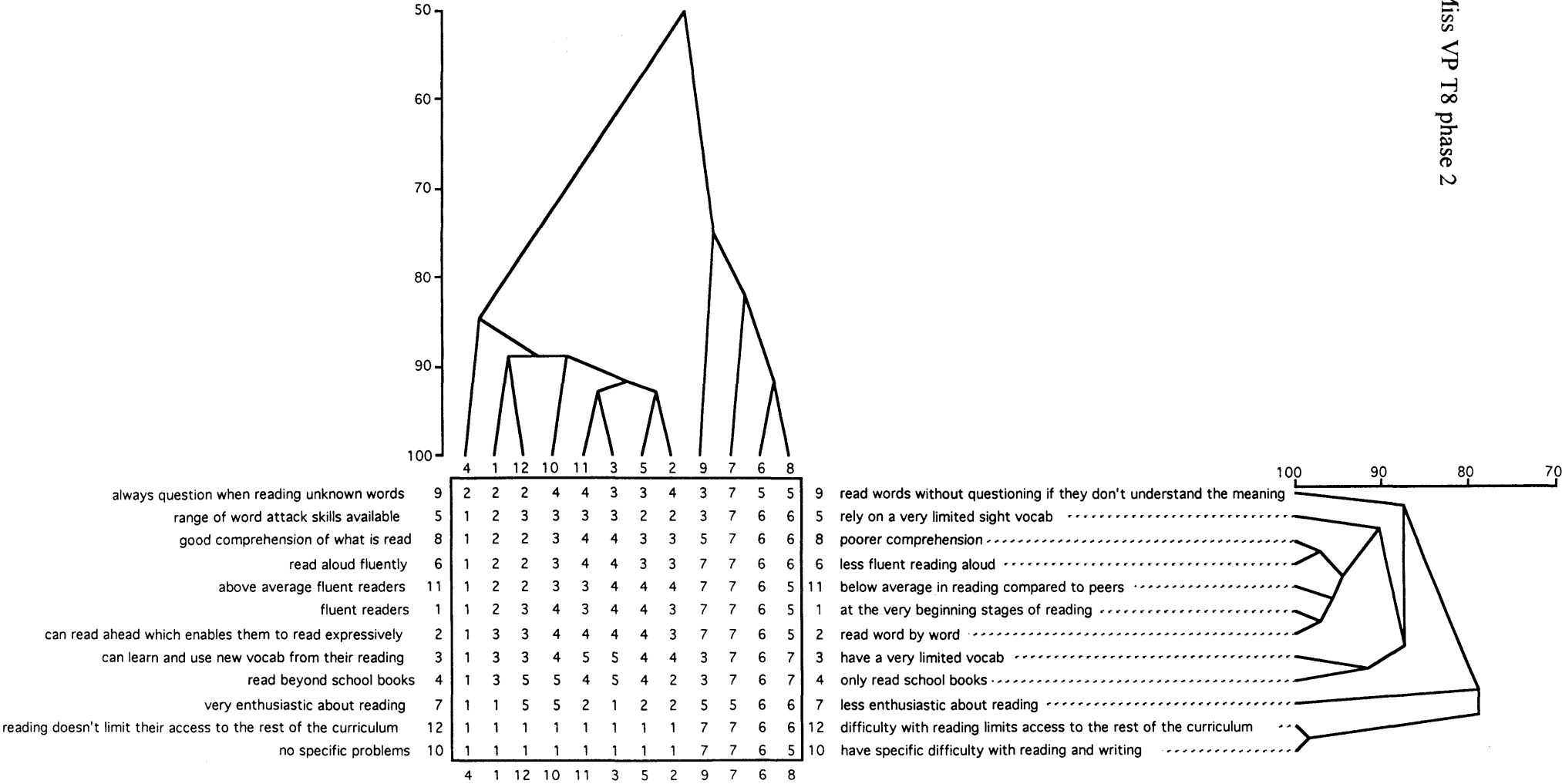
Element Links

E1 linked to E2 at 100.0
 E11 linked to E12 at 100.0
 E1 linked to E11 at 98.6
 E4 linked to E6 at 97.2
 E5 linked to E7 at 97.2
 E9 linked to E10 at 94.4
 E3 linked to E10 at 86.1
 E3 linked to E7 at 83.3
 E8 linked to E12 at 80.6
 E2 linked to E5 at 72.2
 E6 linked to E9 at 68.1

Construct Links

R8	linked to	R11	at	97.2
L5	linked to	R8	at	95.8
L5	linked to	R10	at	95.8
R2	linked to	L3	at	93.1
L3	linked to	R10	at	93.1
L9	linked to	R11	at	91.7
R7	linked to	L9	at	87.5
R2	linked to	L6	at	83.3
R7	linked to	L12	at	83.3
R4	linked to	L12	at	68.1
R1	linked to	L6	at	59.7

FOCUS: T8 2nd grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Miss VP T8 phase 2

FOCUS Miss VP T8 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	86	79	85	85	35	19	38	44	78	81	89
E2	*	86	100	85	74	93	46	31	49	50	86	89	81
E3	*	79	85	100	64	92	56	40	58	54	88	93	79
E4	*	85	74	64	100	69	19	4	22	29	62	65	74
E5	*	85	93	92	69	100	50	35	53	54	90	90	82
E6	*	35	46	56	19	50	100	82	92	74	57	54	46
E7	*	19	31	40	4	35	82	100	79	75	42	39	31
E8	*	38	49	58	22	53	92	79	100	65	60	57	49
E9	*	44	50	54	29	54	74	75	65	100	56	53	50
E10	*	78	86	88	62	90	57	42	60	56	100	89	89
E11	*	81	89	93	65	90	54	39	57	53	89	100	81
E12	*	89	81	79	74	82	46	31	49	50	89	81	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	97	85	57	86	93	78	90	60	78	51	76
R2	*	97	100	88	60	83	93	75	90	62	75	54	74
R3	*	85	88	100	56	85	83	71	86	61	62	58	64
R4	*	57	60	56	100	54	56	49	58	81	40	78	39
R5	*	86	83	85	54	100	88	83	90	51	78	49	79
R6	*	93	93	83	56	88	100	76	97	56	79	47	81
R7	*	78	75	71	49	83	76	100	79	54	78	49	79
R8	*	90	90	86	58	90	97	79	100	58	76	50	78
R9	*	60	62	61	81	51	56	54	58	100	38	86	36
R10	*	78	75	62	40	78	79	78	76	38	100	29	99
R11	*	51	54	58	78	49	47	49	50	86	29	100	28
R12	*	76	74	64	39	79	81	79	78	36	99	28	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	53	56	60	82	50	49	47	51	85	31	96	29
R2	*	56	58	60	85	53	51	50	54	85	33	93	32
R3	*	60	60	56	92	54	53	57	56	86	40	83	39
R4	*	82	85	92	50	85	81	79	83	61	62	58	64
R5	*	50	53	54	85	42	46	47	49	88	28	85	26
R6	*	49	51	53	81	46	44	46	47	86	26	94	25
R7	*	47	50	57	79	47	46	36	49	74	28	74	26
R8	*	51	54	56	83	49	47	49	50	89	29	92	28
R9	*	85	85	86	61	88	86	74	89	61	71	58	69
R10	*	31	33	40	62	28	26	28	29	71	8	79	7
R11	*	96	93	83	58	85	94	74	92	58	79	50	78
R12	*	29	32	39	64	26	25	26	28	69	7	78	6

Element Links

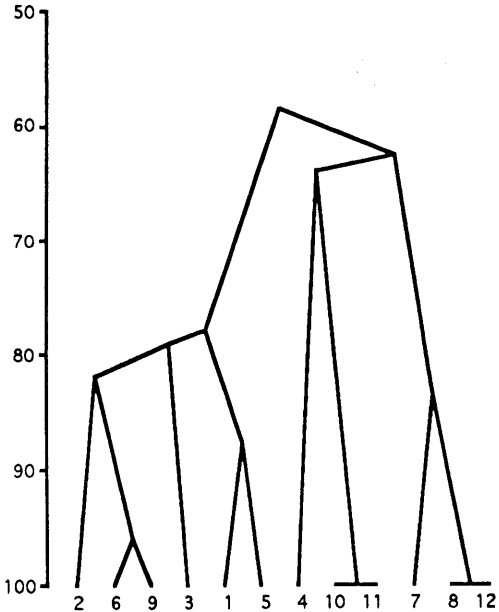
E2 linked to E5 at 93.1
 E3 linked to E11 at 93.1
 E3 linked to E5 at 91.7
 E6 linked to E8 at 91.7
 E1 linked to E12 at 88.9
 E10 linked to E11 at 88.9
 E10 linked to E12 at 88.9
 E1 linked to E4 at 84.7
 E6 linked to E7 at 81.9
 E7 linked to E9 at 75.0
 E2 linked to E9 at 50.0

Construct Links

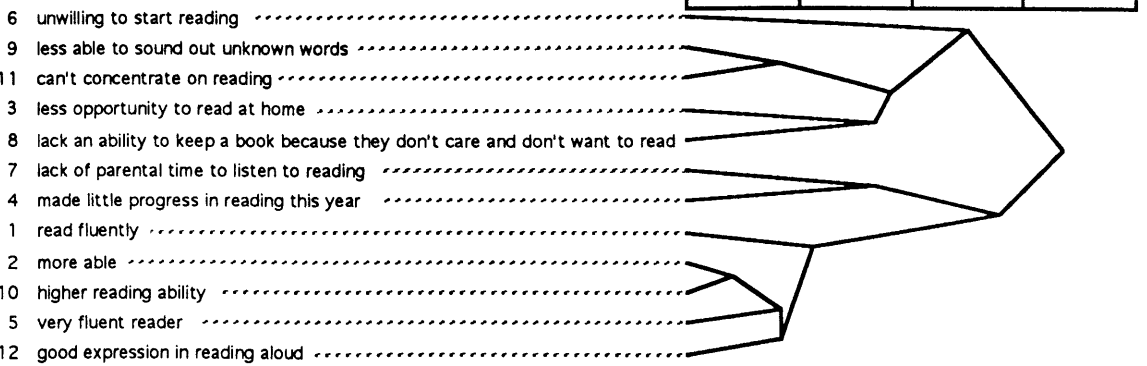
R10	linked to	R12	at	98.6
R1	linked to	R2	at	97.2
R6	linked to	R8	at	97.2
R1	linked to	L11	at	95.8
R6	linked to	L11	at	94.4
R3	linked to	L4	at	91.7
R5	linked to	R8	at	90.3
R2	linked to	R3	at	87.5
R5	linked to	L9	at	87.5
L4	linked to	R7	at	79.2
R7	linked to	R12	at	79.2

FOCUS: T9 2nd grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading

FOCUS Miss GA T9 phase 2



persevere with reading	6	7	4	1	1	1	1	1	4	4	7	1	1
persevere with sounding out unknown words	9	4	4	4	1	1	1	7	4	4	1	1	1
concentration span for reading is a lot longer	11	3	3	3	2	1	1	7	5	5	1	1	1
more opportunity to read at home	3	1	1	1	1	3	3	7	6	6	1	1	1
never lose books	8	1	1	1	1	1	1	7	7	7	7	1	1
spend a lot of time reading to parents	7	4	4	4	1	4	4	7	7	7	4	4	4
made a great deal of progress this year in reading	4	3	3	3	1	4	4	6	6	6	6	6	6
don't know their alphabet	1	5	6	6	5	4	2	3	6	6	7	7	7
lacking ability	2	4	5	5	4	3	1	3	5	5	7	7	7
just beginning reading	10	4	5	5	5	3	1	1	5	5	7	7	7
poor readers	5	3	6	6	4	3	1	1	6	6	7	7	7
lack expression in reading aloud	12	2	6	6	4	2	1	1	4	4	7	7	7



FOCUS Miss GA T9 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	76	78	54	88	67	50	67	71	51	51	67
E2	*	76	100	74	44	64	82	57	57	78	58	58	57
E3	*	78	74	100	35	65	75	53	69	79	51	51	69
E4	*	54	44	35	100	58	35	26	26	39	64	64	26
E5	*	88	64	65	58	100	54	38	54	58	39	39	54
E6	*	67	82	75	35	54	100	67	75	96	71	71	75
E7	*	50	57	53	26	38	67	100	83	62	62	62	83
E8	*	67	57	69	26	54	75	83	100	79	54	54	100
E9	*	71	78	79	39	58	96	62	79	100	67	67	79
E10	*	51	58	51	64	39	71	62	54	67	100	100	54
E11	*	51	58	51	64	39	71	62	54	67	100	100	54
E12	*	67	57	69	26	54	75	83	100	79	54	54	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	89	72	72	38	57	58	44	71	88	74	82
R2	*	89	100	67	72	40	57	61	50	74	96	74	88
R3	*	72	67	100	50	43	60	69	17	76	71	82	71
R4	*	72	72	50	100	51	57	58	64	62	68	57	62
R5	*	38	40	43	51	100	56	60	51	47	36	50	33
R6	*	57	57	60	57	56	100	54	29	75	56	69	58
R7	*	58	61	69	58	60	54	100	33	71	65	68	60
R8	*	44	50	17	64	51	29	33	100	29	46	24	46
R9	*	71	74	76	62	47	75	71	29	100	78	92	72
R10	*	88	96	71	68	36	56	65	46	78	100	78	89
R11	*	74	74	82	57	50	69	68	24	92	78	100	72
R12	*	82	88	71	62	33	58	60	46	72	89	72	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	39	44	42	58	90	51	64	56	46	40	46	40
R2	*	44	50	44	58	90	60	64	50	57	46	57	43
R3	*	42	44	17	67	68	46	42	83	29	40	24	38
R4	*	58	58	67	50	71	54	83	36	60	60	65	54
R5	*	90	90	68	71	31	53	57	49	69	92	69	92
R6	*	51	60	46	54	53	25	54	71	50	61	47	61
R7	*	64	64	42	83	57	54	67	67	54	60	49	51
R8	*	56	50	83	36	49	71	67	0	71	54	76	54
R9	*	46	57	29	60	69	50	54	71	42	53	36	53
R10	*	40	46	40	60	92	61	60	54	53	42	53	39
R11	*	46	57	24	65	69	47	49	76	36	53	31	50
R12	*	40	43	38	54	92	61	51	54	53	39	50	36

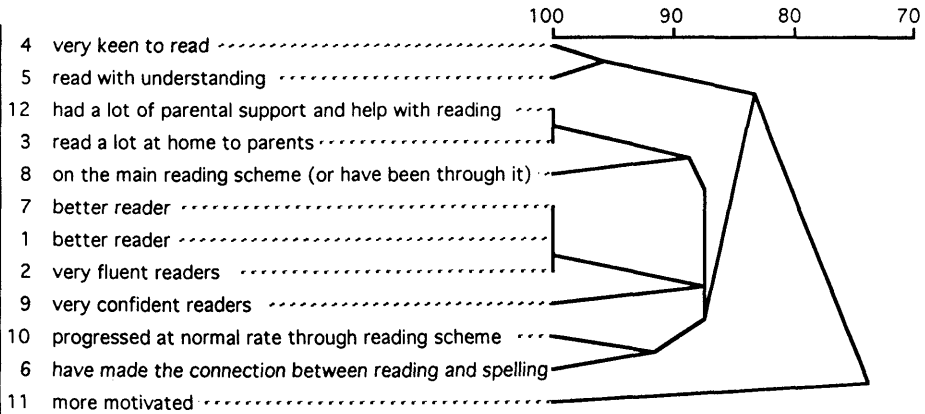
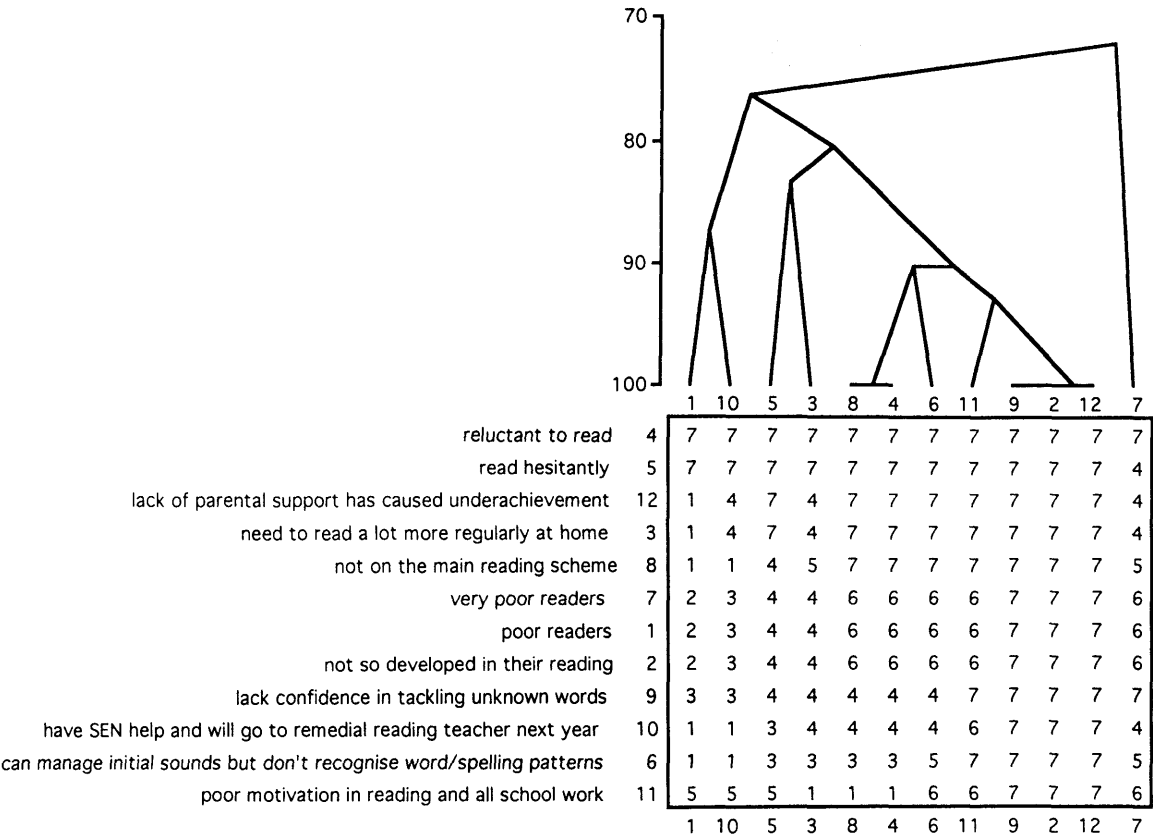
Element Links

E8 linked to E12 at 100.0
 E10 linked to E11 at 100.0
 E6 linked to E9 at 95.8
 E1 linked to E5 at 87.5
 E7 linked to E8 at 83.3
 E2 linked to E6 at 81.9
 E3 linked to E9 at 79.2
 E1 linked to E3 at 77.8
 E4 linked to E10 at 63.9
 E7 linked to E11 at 62.5
 E4 linked to E5 at 58.3

Construct Links

L2	linked to	L10	at	95.8
R5	linked to	L10	at	91.7
R5	linked to	L12	at	91.7
R9	linked to	R11	at	91.7
L1	linked to	L2	at	88.9
R3	linked to	L8	at	83.3
L4	linked to	R7	at	83.3
R3	linked to	R11	at	81.9
R6	linked to	R9	at	75.0
L1	linked to	L4	at	72.2
R7	linked to	L8	at	66.7

FOCUS: T10 2nd grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mrs YN T10 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	29	64	44	64	46	49	44	29	88	36	29
E2	*	29	100	54	74	65	83	72	74	100	42	93	100
E3	*	64	54	100	81	83	71	74	81	54	76	61	54
E4	*	44	74	81	100	81	90	71	100	74	57	81	74
E5	*	64	65	83	81	100	82	68	81	65	76	72	65
E6	*	46	83	71	90	82	100	81	90	83	58	90	83
E7	*	49	72	74	71	68	81	100	71	72	61	79	72
E8	*	44	74	81	100	81	90	71	100	74	57	81	74
E9	*	29	100	54	74	65	83	72	74	100	42	93	100
E10	*	88	42	76	57	76	58	61	57	42	100	49	42
E11	*	36	93	61	81	72	90	79	81	93	49	100	93
E12	*	29	100	54	74	65	83	72	74	100	42	93	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	39	32	72	32	81	100	88	46	44	74	32
R2	*	39	100	85	28	71	42	39	29	88	83	49	85
R3	*	32	85	100	21	83	38	32	22	75	76	44	100
R4	*	72	28	21	100	4	56	72	74	32	44	62	21
R5	*	32	71	83	4	100	49	32	31	64	60	42	83
R6	*	81	42	38	56	49	100	81	82	43	42	74	38
R7	*	100	39	32	72	32	81	100	88	46	44	74	32
R8	*	88	29	22	74	31	82	88	100	36	35	61	22
R9	*	46	88	75	32	64	43	46	36	100	88	44	75
R10	*	44	83	76	44	60	42	44	35	88	100	46	76
R11	*	74	49	44	62	42	74	74	61	44	46	100	44
R12	*	32	85	100	21	83	38	32	22	75	76	44	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	39	100	85	28	71	42	39	29	88	83	49	85
R2	*	100	39	32	72	32	81	100	88	46	44	74	32
R3	*	85	32	25	79	25	74	85	89	39	40	64	25
R4	*	28	72	79	0	96	44	28	26	68	56	38	79
R5	*	71	32	25	96	8	57	71	75	36	49	61	25
R6	*	42	81	74	44	57	33	42	35	85	92	38	74
R7	*	39	100	85	28	71	42	39	29	88	83	49	85
R8	*	29	88	89	26	75	35	29	19	78	82	47	89
R9	*	88	46	39	68	36	85	88	78	53	51	75	39
R10	*	83	44	40	56	49	92	83	82	51	50	68	40
R11	*	49	74	64	38	61	38	49	47	75	68	25	64
R12	*	85	32	25	79	25	74	85	89	39	40	64	25

Element Links

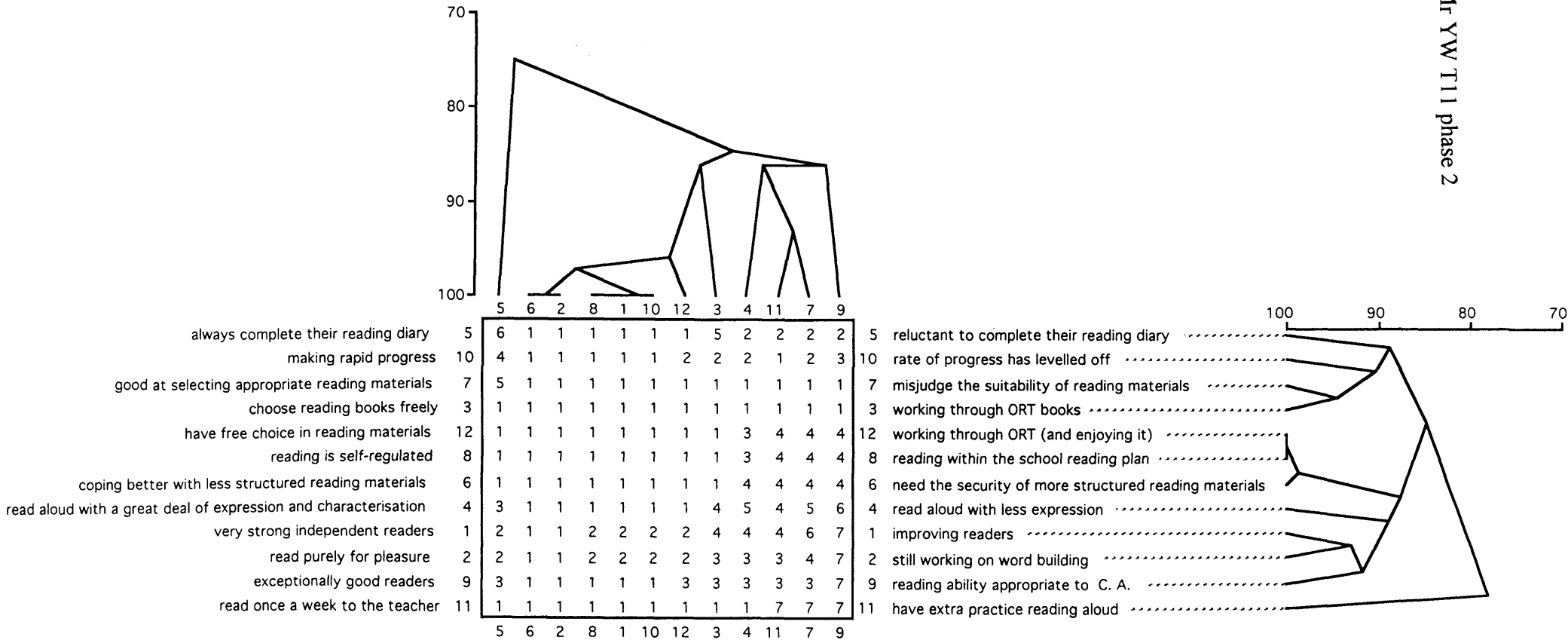
E2 linked to E9 at 100.0
 E2 linked to E12 at 100.0
 E4 linked to E8 at 100.0
 E9 linked to E11 at 93.1
 E4 linked to E6 at 90.3
 E6 linked to E11 at 90.3
 E1 linked to E10 at 87.5
 E3 linked to E5 at 83.3
 E3 linked to E8 at 80.6
 E5 linked to E10 at 76.4
 E7 linked to E12 at 72.2

Construct Links

R1 linked to R7 at 100.0
R1 linked to L2 at 100.0
L3 linked to L12 at 100.0
R4 linked to L5 at 95.8
R6 linked to L10 at 91.7
L3 linked to R8 at 88.9
L2 linked to L9 at 87.5
R7 linked to R8 at 87.5
L9 linked to L10 at 87.5
L5 linked to L12 at 83.3
R6 linked to R11 at 73.6

FOCUS: T11 2nd grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading

FOCUS Mr YW T11 phase 2



FOCUS Mr YW T11 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	97	82	75	78	97	60	100	46	100	67	96
E2	*	97	100	79	72	75	100	57	97	43	97	64	93
E3	*	82	79	100	85	85	79	69	82	56	82	74	86
E4	*	75	72	85	100	69	72	85	75	71	75	86	79
E5	*	78	75	85	69	100	75	54	78	43	78	58	82
E6	*	97	100	79	72	75	100	57	97	43	97	64	93
E7	*	60	57	69	85	54	57	100	60	86	60	93	64
E8	*	100	97	82	75	78	97	60	100	46	100	67	96
E9	*	46	43	56	71	43	43	86	46	100	46	79	50
E10	*	100	97	82	75	78	97	60	100	46	100	67	96
E11	*	67	64	74	86	58	64	93	67	79	67	100	68
E12	*	96	93	86	79	82	93	64	96	50	96	68	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	40	35	89	47	82	62	81	40	72	79	36
R2	*	40	100	72	40	74	36	33	35	92	35	22	85
R3	*	35	72	100	29	82	17	6	15	75	12	25	85
R4	*	89	40	29	100	42	88	71	86	40	78	79	36
R5	*	47	74	82	42	100	35	15	33	79	25	35	78
R6	*	82	36	17	88	35	100	78	99	33	82	83	32
R7	*	62	33	6	71	15	78	100	79	31	90	69	21
R8	*	81	35	15	86	33	99	79	100	32	83	85	31
R9	*	40	92	75	40	79	33	31	32	100	32	22	85
R10	*	72	35	12	78	25	82	90	83	32	100	71	28
R11	*	79	22	25	79	35	83	69	85	22	71	100	15
R12	*	36	85	85	36	78	32	21	31	85	28	15	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	42	93	65	39	69	38	40	36	85	42	21	81
R2	*	93	39	28	85	43	83	69	85	36	79	78	35
R3	*	65	28	0	71	18	83	94	85	25	88	75	15
R4	*	39	85	71	36	78	35	35	36	88	39	21	86
R5	*	69	43	18	78	19	76	88	78	38	89	65	33
R6	*	38	83	83	35	76	33	22	32	83	29	17	99
R7	*	40	69	94	35	88	22	6	21	75	15	31	79
R8	*	36	85	85	36	78	32	21	31	85	28	15	100
R9	*	85	36	25	88	38	83	75	85	33	85	78	32
R10	*	42	79	88	39	89	29	15	28	85	25	29	83
R11	*	21	78	75	21	65	17	31	15	78	29	0	85
R12	*	81	35	15	86	33	99	79	100	32	83	85	31

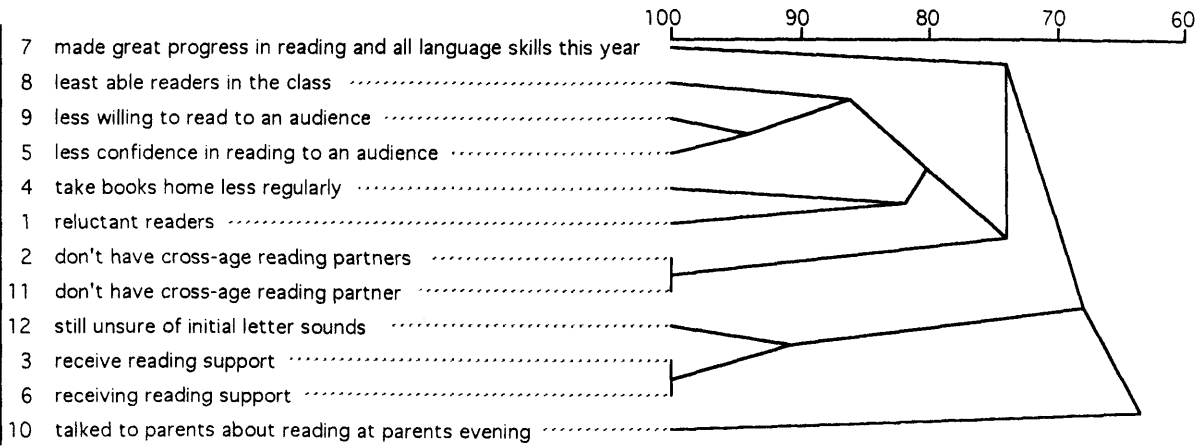
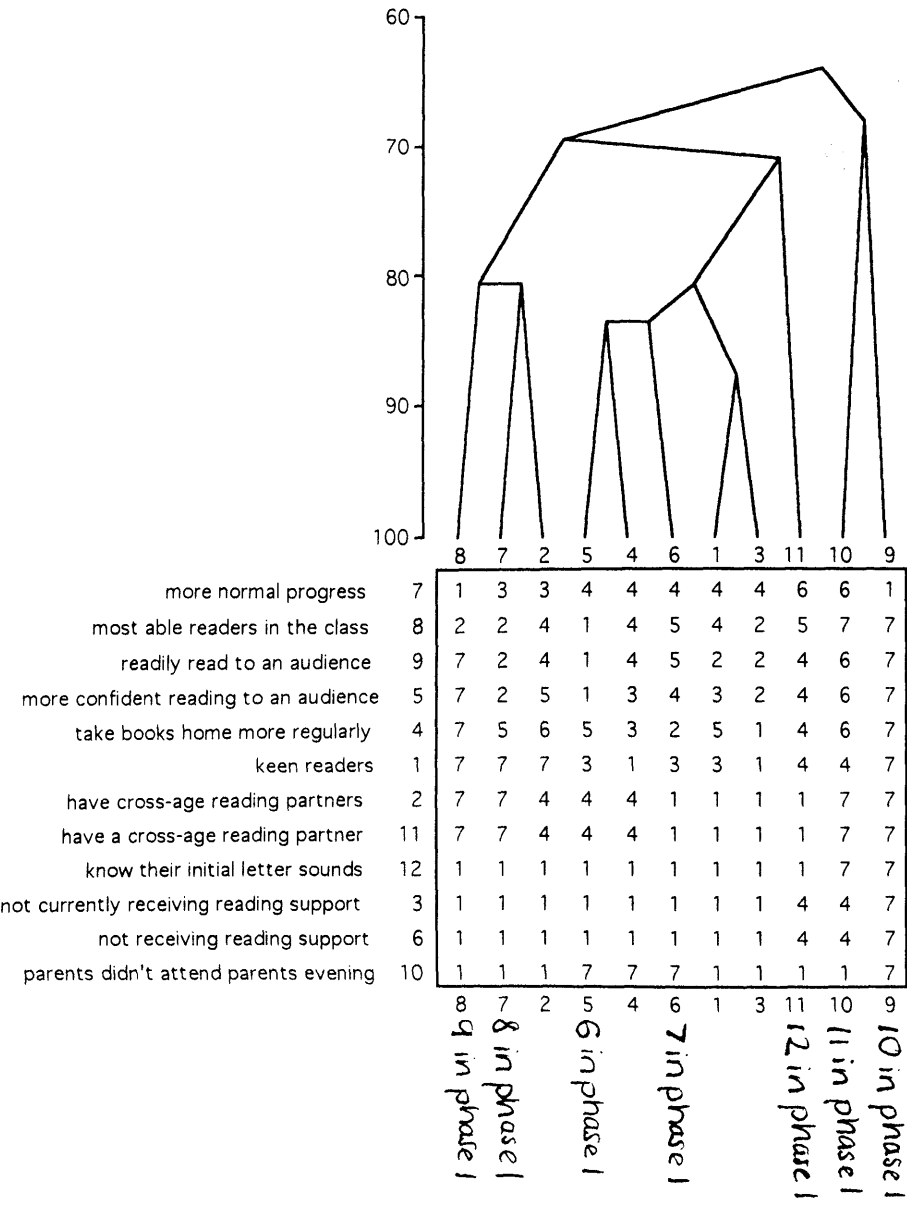
Element Links

E1 linked to E8 at 100.0
 E1 linked to E10 at 100.0
 E2 linked to E6 at 100.0
 E2 linked to E8 at 97.2
 E10 linked to E12 at 95.8
 E7 linked to E11 at 93.1
 E3 linked to E12 at 86.1
 E4 linked to E11 at 86.1
 E7 linked to E9 at 86.1
 E3 linked to E4 at 84.7
 E5 linked to E6 at 75.0

Construct Links

R8 linked to L12 at 100.0
R6 linked to R8 at 98.6
L3 linked to R7 at 94.4
R1 linked to L2 at 93.1
L2 linked to L9 at 91.7
R7 linked to R10 at 90.3
R1 linked to R4 at 88.9
L5 linked to R10 at 88.9
R4 linked to R6 at 87.5
L3 linked to L12 at 84.7
L9 linked to R11 at 77.8

FOCUS: T12 2nd grid.
Elements: 11, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



At phase 2 element 5
had left White Junior School
and so could not be rated.

FOCUS Mr WP T12 phase 2

FOCUS Mr WP T12 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11

E1	*	100	78	88	75	75	81	72	56	21	47	81
E2	*	78	100	65	75	69	67	81	78	43	58	69
E3	*	88	65	100	74	71	76	68	49	8	35	71
E4	*	75	75	74	100	83	83	64	53	35	44	64
E5	*	75	69	71	83	100	72	72	53	29	39	56
E6	*	81	67	76	83	72	100	53	47	32	42	75
E7	*	72	81	68	64	72	53	100	81	40	56	56
E8	*	56	78	49	53	53	47	81	100	60	61	47
E9	*	21	43	8	35	29	32	40	60	100	68	32
E10	*	47	58	35	44	39	42	56	61	68	100	64
E11	*	81	69	71	64	56	75	56	47	32	64	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	74	64	82	47	64	50	58	71	61	32	55
R2	*	74	100	59	77	42	59	52	56	73	50	27	68
R3	*	64	59	100	58	44	100	56	36	68	36	41	91
R4	*	82	77	58	100	53	58	59	61	74	58	38	55
R5	*	47	42	44	53	100	44	76	83	45	47	70	35
R6	*	64	59	100	58	44	100	56	36	68	36	41	91
R7	*	50	52	56	59	76	56	100	65	64	53	73	53
R8	*	58	56	36	61	83	36	65	100	53	55	62	30
R9	*	71	73	68	74	45	68	64	53	100	47	45	65
R10	*	61	50	36	58	47	36	53	55	47	100	50	36
R11	*	32	27	41	38	70	41	73	62	45	50	100	32
R12	*	55	68	91	55	35	91	53	30	65	36	32	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	36	32	55	45	77	55	74	61	50	39	74	45
R2	*	32	27	41	38	70	41	73	62	45	50	100	32
R3	*	55	41	18	55	68	18	50	70	44	64	59	9
R4	*	45	38	55	42	80	55	77	67	56	42	77	45
R5	*	77	70	68	80	45	68	64	53	94	53	42	65
R6	*	55	41	18	55	68	18	50	70	44	64	59	9
R7	*	74	73	50	77	64	50	64	74	73	47	52	47
R8	*	61	62	70	67	53	70	74	48	86	45	56	70
R9	*	50	45	44	56	94	44	73	86	45	53	73	35
R10	*	39	50	64	42	53	64	47	45	53	0	50	64
R11	*	74	100	59	77	42	59	52	56	73	50	27	68
R12	*	45	32	9	45	65	9	47	70	35	64	68	0

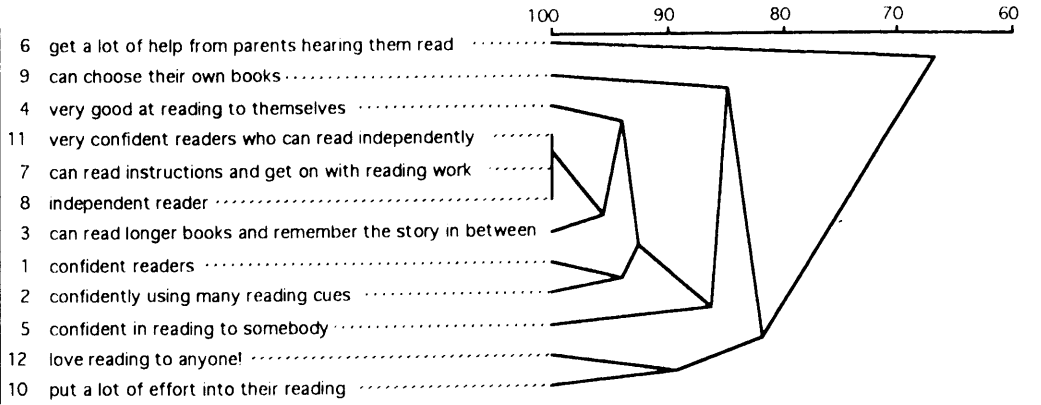
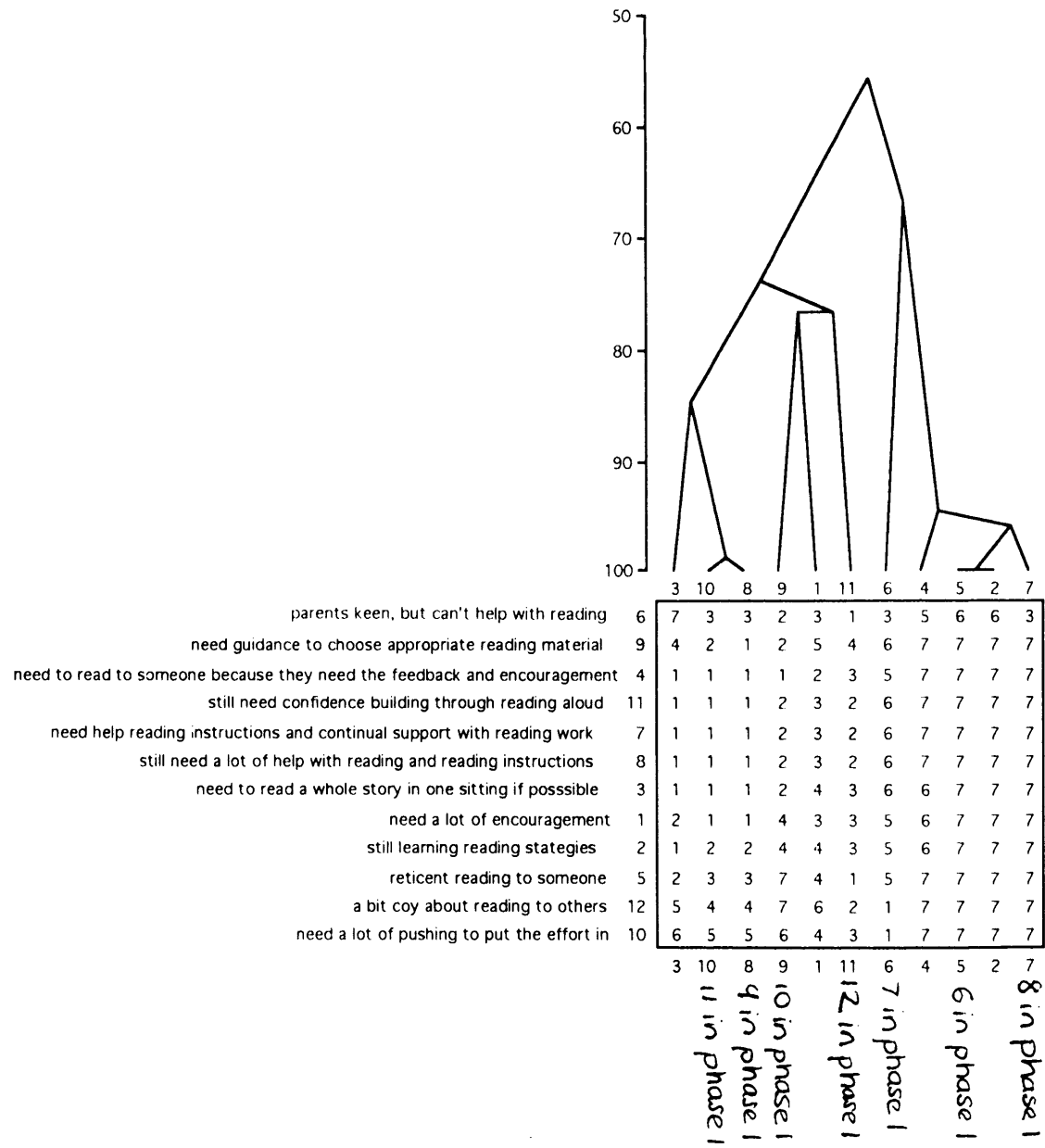
Element Links

E1 linked to E3 at 87.5
 E4 linked to E5 at 83.3
 E4 linked to E6 at 83.3
 E1 linked to E6 at 80.6
 E2 linked to E7 at 80.6
 E7 linked to E8 at 80.6
 E3 linked to E11 at 70.8
 E2 linked to E5 at 69.4
 E9 linked to E10 at 68.1
 E10 linked to E11 at 63.9

Construct Links

R2 linked to L11 at 100.0
R3 linked to R6 at 100.0
L5 linked to R9 at 93.9
R3 linked to R12 at 90.9
L8 linked to R9 at 86.4
R1 linked to R4 at 81.8
R4 linked to L5 at 80.3
R1 linked to R2 at 74.2
R7 linked to L8 at 74.2
L11 linked to R12 at 68.2
R6 linked to L10 at 63.6

FOCUS: T13 2nd grid.
Elements: 11, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mrs WB T13 phase 2

At phase 2 element 5
had left White Junior School
and so could not be rated.

FOCUS Mrs WB T13 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11

E1	*	100	46	67	51	46	62	50	69	76	71	76
E2	*	46	100	26	94	100	61	96	18	42	19	25
E3	*	67	26	100	29	26	32	22	83	68	85	68
E4	*	51	94	29	100	94	67	93	24	47	25	31
E5	*	46	100	26	94	100	61	96	18	42	19	25
E6	*	62	61	32	67	61	100	65	38	44	39	56
E7	*	50	96	22	93	96	65	100	22	46	24	29
E8	*	69	18	83	24	18	38	22	100	74	99	71
E9	*	76	42	68	47	42	44	46	74	100	75	69
E10	*	71	19	85	25	19	39	24	99	75	100	72
E11	*	76	25	68	31	25	56	29	71	69	72	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	94	29	91	83	67	24	24	85	70	91	68
R2	*	94	100	32	88	86	67	27	27	85	73	88	71
R3	*	29	32	100	20	33	50	95	95	29	53	20	42
R4	*	91	88	20	100	77	64	15	15	85	64	94	62
R5	*	83	86	33	77	100	68	29	29	77	77	80	82
R6	*	67	67	50	64	68	100	45	45	67	67	67	65
R7	*	24	27	95	15	29	45	100	100	27	48	15	41
R8	*	24	27	95	15	29	45	100	100	27	48	15	41
R9	*	85	85	29	85	77	67	27	27	100	70	88	71
R10	*	70	73	53	64	77	67	48	48	70	100	64	89
R11	*	91	88	20	94	80	67	15	15	88	64	100	65
R12	*	68	71	42	62	82	65	41	41	71	89	65	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	33	36	92	24	32	52	91	91	36	48	24	41
R2	*	36	39	92	27	35	58	88	88	36	52	27	41
R3	*	92	92	24	92	79	65	20	20	89	65	95	64
R4	*	24	27	92	15	32	45	94	94	27	45	15	44
R5	*	32	35	79	32	30	56	80	80	38	47	29	36
R6	*	52	58	65	45	56	45	67	67	48	55	45	50
R7	*	91	88	20	94	80	67	15	15	88	64	100	65
R8	*	91	88	20	94	80	67	15	15	88	64	100	65
R9	*	36	36	89	27	38	48	88	88	33	52	27	44
R10	*	48	52	65	45	47	55	64	64	52	33	48	32
R11	*	24	27	95	15	29	45	100	100	27	48	15	41
R12	*	41	41	64	44	36	50	65	65	44	32	41	30

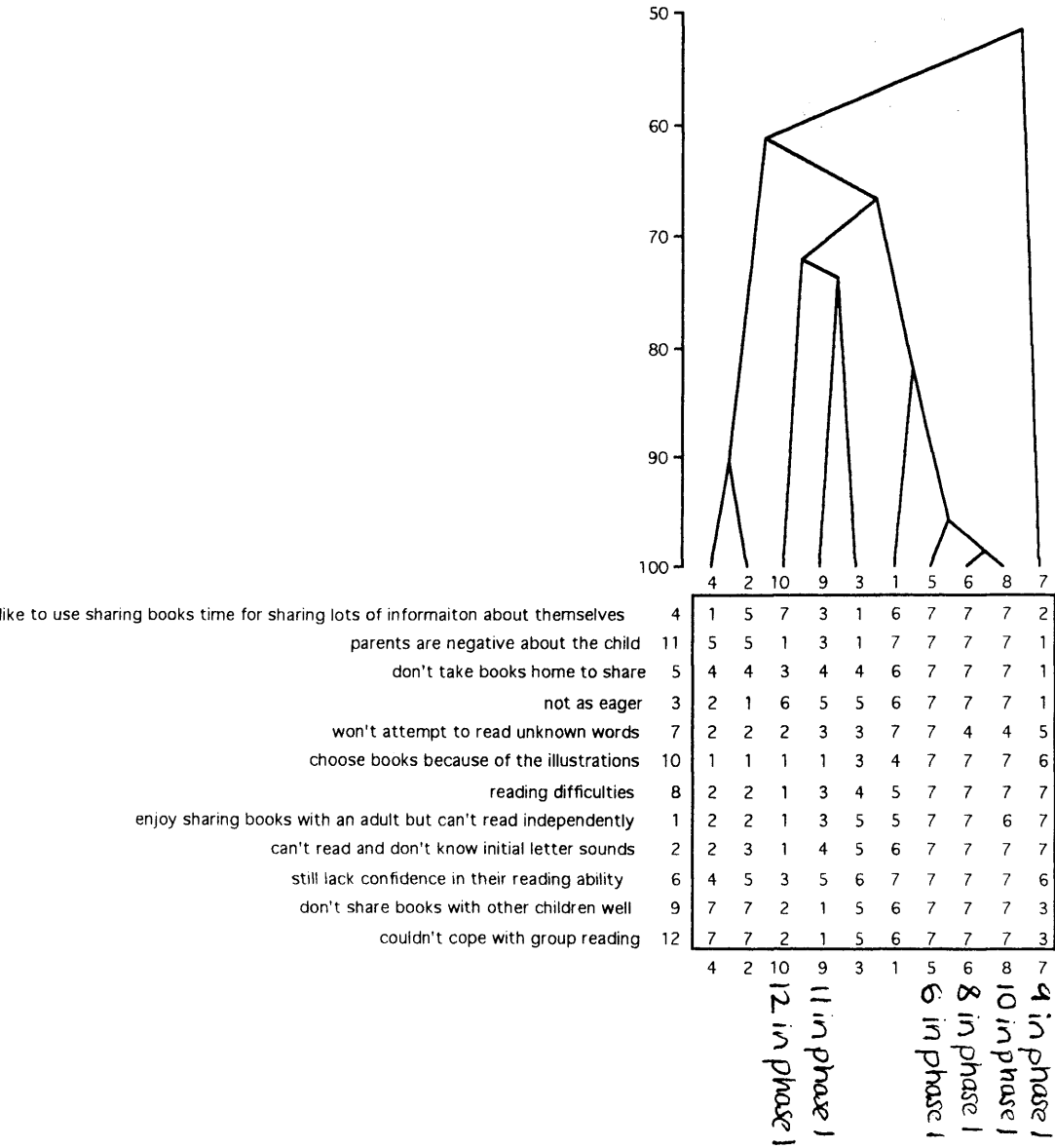
Element Links

E2 linked to E5 at 100.0
 E8 linked to E10 at 98.6
 E2 linked to E7 at 95.8
 E4 linked to E5 at 94.4
 E3 linked to E10 at 84.7
 E1 linked to E9 at 76.4
 E1 linked to E11 at 76.4
 E8 linked to E9 at 73.6
 E4 linked to E6 at 66.7
 E6 linked to E11 at 55.6

Construct Links

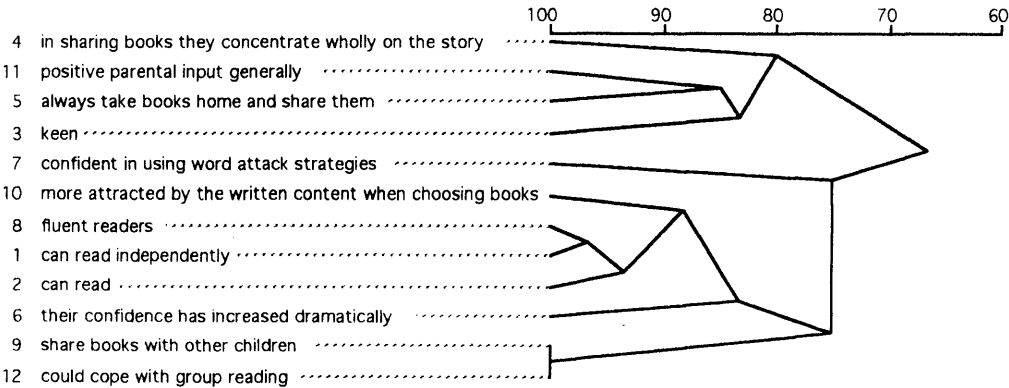
R7 linked to R8 at 100.0
R7 linked to L11 at 100.0
R3 linked to R8 at 95.5
L1 linked to L2 at 93.9
L4 linked to L11 at 93.9
L1 linked to R3 at 92.4
L10 linked to L12 at 89.4
L2 linked to L5 at 86.4
L4 linked to L9 at 84.8
L5 linked to L12 at 81.8
L6 linked to L9 at 66.7

FOCUS: T14 2nd grid.
Elements: 10, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mrs WT T14 phase 2

At phase 2 element 5 and element 7 had left White Junior School and so could not be rated.



FOCUS Mrs WT T14 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10

E1	*	100	57	67	50	82	78	50	79	51	40
E2	*	57	100	62	90	44	49	43	50	67	61
E3	*	67	62	100	67	49	53	67	54	74	57
E4	*	50	90	67	100	38	42	42	43	65	60
E5	*	82	44	49	38	100	96	51	94	33	25
E6	*	78	49	53	42	96	100	53	99	38	29
E7	*	50	43	67	42	51	53	100	51	54	40
E8	*	79	50	54	43	94	99	51	100	39	31
E9	*	51	67	74	65	33	38	54	39	100	72
E10	*	40	61	57	60	25	29	40	31	72	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	93	73	48	73	77	43	30	42	85	45	42
R2	*	93	100	77	48	80	83	43	30	38	82	45	38
R3	*	73	77	100	32	83	73	53	47	48	68	42	48
R4	*	48	48	32	100	38	48	65	68	67	40	80	67
R5	*	73	80	83	38	100	83	53	50	35	68	35	35
R6	*	77	83	73	48	83	100	53	40	35	68	45	35
R7	*	43	43	53	65	53	53	100	80	62	35	68	62
R8	*	30	30	47	68	50	40	80	100	68	25	72	68
R9	*	42	38	48	67	35	35	62	68	100	47	77	100
R10	*	85	82	68	40	68	68	35	25	47	100	33	47
R11	*	45	45	42	80	35	45	68	72	77	33	100	77
R12	*	42	38	48	67	35	35	62	68	100	47	77	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	30	30	47	65	50	40	80	97	68	28	68	68
R2	*	30	30	43	68	50	37	77	93	72	28	72	72
R3	*	47	43	23	78	40	43	67	73	65	42	68	65
R4	*	65	68	78	20	78	68	48	45	40	67	33	40
R5	*	50	50	40	78	50	50	70	77	78	42	85	78
R6	*	40	37	43	68	50	37	70	77	75	38	75	75
R7	*	80	77	67	48	70	70	50	40	55	75	45	55
R8	*	97	93	73	45	77	77	40	30	42	88	42	42
R9	*	68	72	65	40	78	75	55	42	20	67	23	20
R10	*	28	28	42	67	42	38	75	88	67	20	67	67
R11	*	68	72	68	33	85	75	45	42	23	67	20	23
R12	*	68	72	65	40	78	75	55	42	20	67	23	20

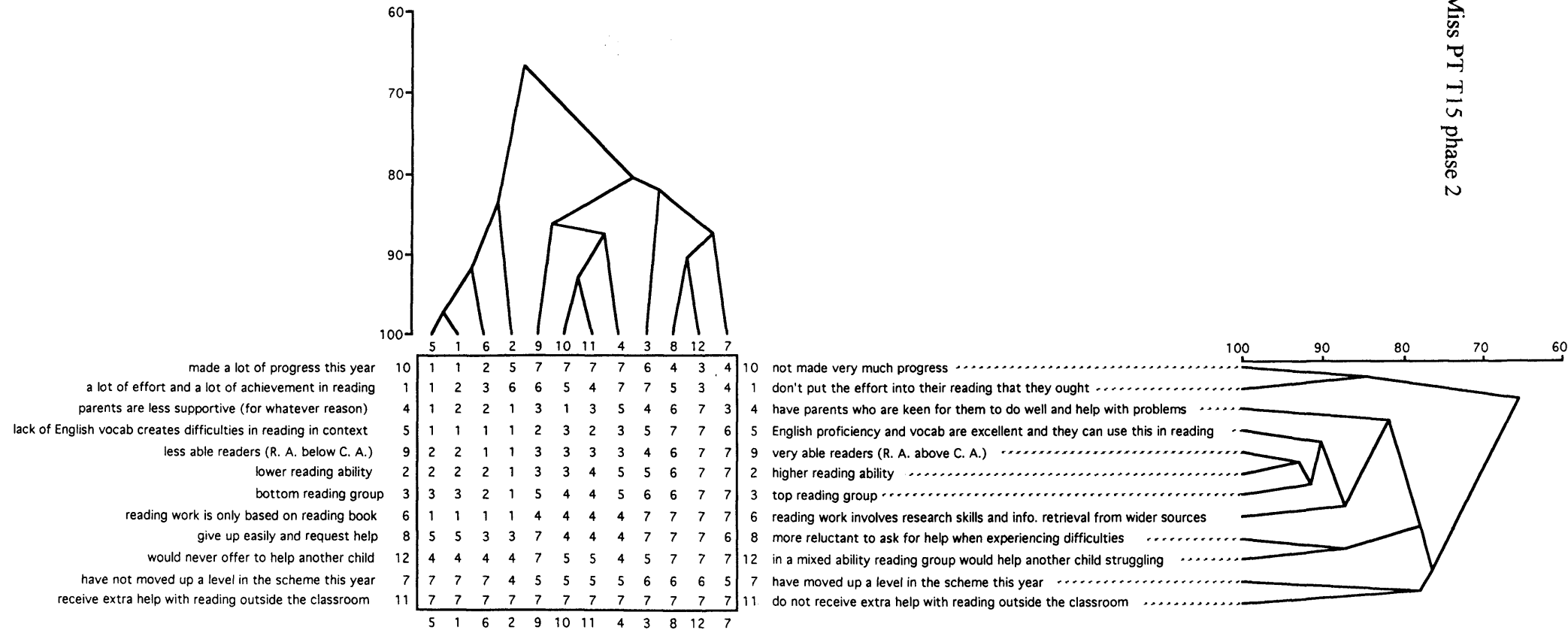
Element Links

E6 linked to E8 at 98.6
 E5 linked to E6 at 95.8
 E2 linked to E4 at 90.3
 E1 linked to E5 at 81.9
 E3 linked to E9 at 73.6
 E9 linked to E10 at 72.2
 E1 linked to E3 at 66.7
 E2 linked to E10 at 61.1
 E7 linked to E8 at 51.4

Construct Links

L9 linked to L12 at 100.0
R1 linked to L8 at 96.7
R1 linked to R2 at 93.3
L8 linked to R10 at 88.3
R5 linked to L11 at 85.0
R2 linked to R6 at 83.3
R3 linked to R5 at 83.3
L4 linked to L11 at 80.0
R6 linked to L9 at 75.0
L7 linked to R10 at 75.0
R3 linked to L7 at 66.7

FOCUS: T15 2nd grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Miss PT T15 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	75	53	61	97	92	49	46	64	69	71	44
E2	*	75	100	53	67	75	83	43	40	67	75	71	31
E3	*	53	53	100	81	50	50	76	82	78	72	74	72
E4	*	61	67	81	100	58	61	62	65	83	86	88	56
E5	*	97	75	50	58	100	89	46	43	61	69	68	42
E6	*	92	83	50	61	89	100	46	43	61	69	71	42
E7	*	49	43	76	62	46	46	100	86	68	62	67	88
E8	*	46	40	82	65	43	43	86	100	68	60	61	90
E9	*	64	67	78	83	61	61	68	68	100	86	88	58
E10	*	69	75	72	86	69	69	62	60	86	100	93	50
E11	*	71	71	74	88	68	71	67	61	88	93	100	54
E12	*	44	31	72	56	42	42	88	90	58	50	54	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	67	69	65	56	68	62	68	60	85	57	67
R2	*	67	100	92	88	36	88	62	74	93	60	49	75
R3	*	69	92	100	79	42	88	71	82	85	62	57	81
R4	*	65	88	79	100	38	78	56	64	86	58	36	62
R5	*	56	36	42	38	100	29	71	49	32	51	62	53
R6	*	68	88	88	78	29	100	58	78	86	61	50	74
R7	*	62	62	71	56	71	58	100	75	56	56	78	76
R8	*	68	74	82	64	49	78	75	100	69	58	69	88
R9	*	60	93	85	86	32	86	56	69	100	53	42	71
R10	*	85	60	62	58	51	61	56	58	53	100	58	62
R11	*	57	49	57	36	62	50	78	69	42	58	100	71
R12	*	67	75	81	62	53	74	76	88	71	62	71	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	47	58	56	57	58	49	65	60	60	40	43	56
R2	*	58	42	47	43	86	38	65	54	43	49	51	56
R3	*	56	47	47	49	78	40	57	54	49	46	43	53
R4	*	57	43	49	39	82	39	72	56	44	56	64	60
R5	*	58	86	78	82	25	88	51	68	90	54	38	67
R6	*	49	38	40	39	88	33	64	47	36	39	50	46
R7	*	65	65	57	72	51	64	44	50	72	64	22	51
R8	*	60	54	54	56	68	47	50	50	53	53	31	54
R9	*	60	43	49	44	90	36	72	53	39	53	58	57
R10	*	40	49	46	56	54	39	64	53	53	33	42	49
R11	*	43	51	43	64	38	50	22	31	58	42	0	29
R12	*	56	56	53	60	67	46	51	54	57	49	29	58

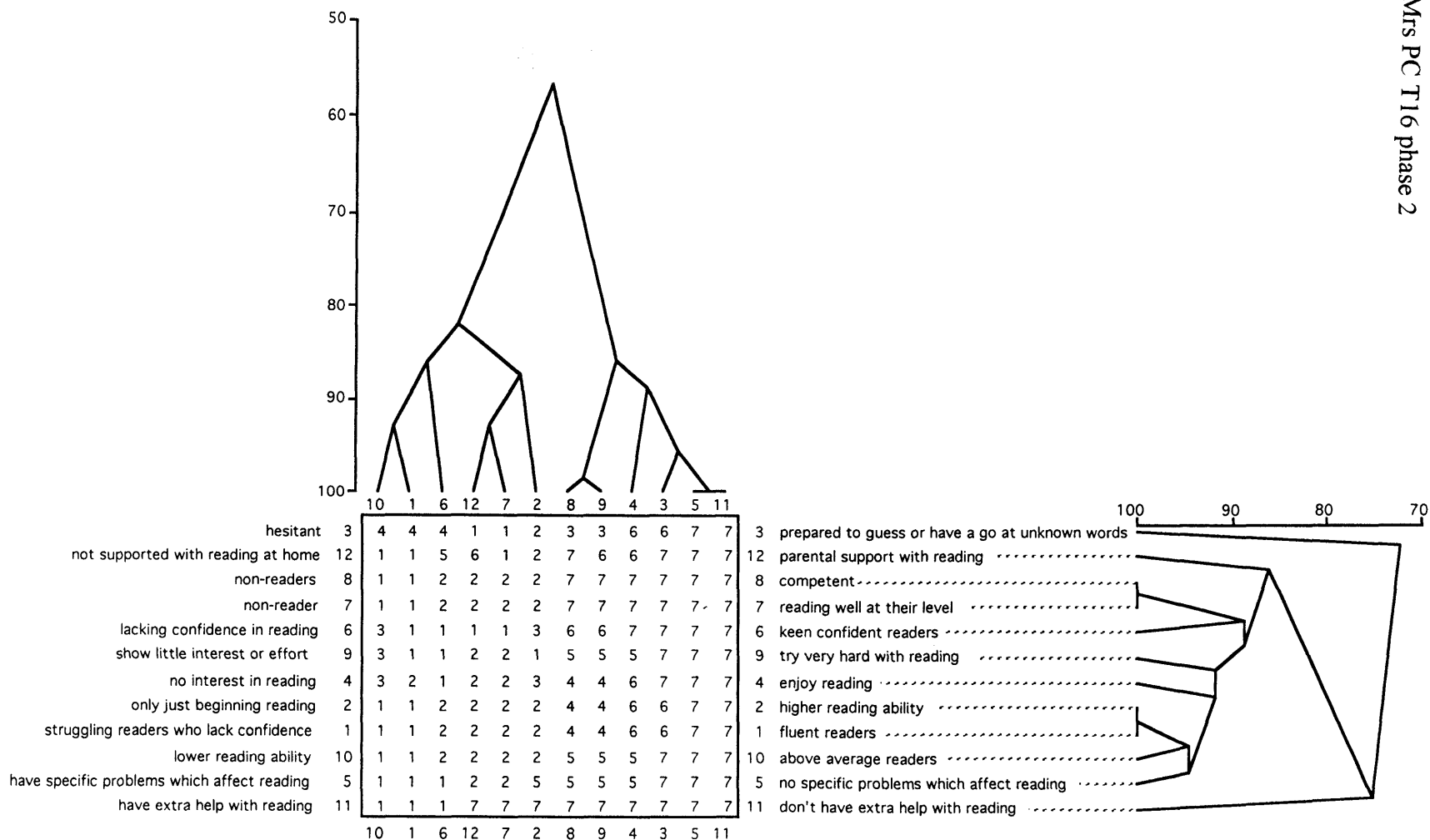
Element Links

E1 linked to E5 at 97.2
 E10 linked to E11 at 93.1
 E1 linked to E6 at 91.7
 E8 linked to E12 at 90.3
 E4 linked to E11 at 87.5
 E7 linked to E12 at 87.5
 E9 linked to E10 at 86.1
 E2 linked to E6 at 83.3
 E3 linked to E8 at 81.9
 E3 linked to E4 at 80.6
 E2 linked to E9 at 66.7

Construct Links

L2 linked to L9	at	93.1
L2 linked to L3	at	91.7
R5 linked to L9	at	90.3
L3 linked to L6	at	87.5
L8 linked to L12	at	87.5
L1 linked to L10	at	84.7
L4 linked to R5	at	81.9
L6 linked to L8	at	77.8
L7 linked to L11	at	77.8
L7 linked to L12	at	76.4
L1 linked to L4	at	65.3

FOCUS: T16 2nd grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mrs PC T16 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	71	10	21	6	86	78	31	32	93	6	71
E2	*	71	100	33	44	29	74	88	57	58	72	29	83
E3	*	10	33	100	89	96	21	24	76	75	17	96	31
E4	*	21	44	89	100	85	32	35	85	86	28	85	42
E5	*	6	29	96	85	100	17	19	72	71	12	100	26
E6	*	86	74	21	32	17	100	78	42	43	79	17	82
E7	*	78	88	24	35	19	78	100	47	49	74	19	93
E8	*	31	57	76	85	72	42	47	100	99	38	72	54
E9	*	32	58	75	86	71	43	49	99	100	39	71	56
E10	*	93	72	17	28	12	79	74	38	39	100	12	67
E11	*	6	29	96	85	100	17	19	72	71	12	100	26
E12	*	71	83	31	42	26	82	93	54	56	67	26	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	33	83	36	33	25	22	89	31	31	33	33
R2	*	33	100	39	92	89	83	89	22	89	94	67	81
R3	*	83	39	100	42	44	36	33	72	42	42	50	42
R4	*	36	92	42	100	89	89	83	25	92	89	67	75
R5	*	33	89	44	89	100	86	86	22	92	94	75	78
R6	*	25	83	36	89	86	100	89	14	89	86	72	81
R7	*	22	89	33	83	86	89	100	11	86	92	78	86
R8	*	89	22	72	25	22	14	11	100	19	19	22	22
R9	*	31	89	42	92	92	89	86	19	100	94	67	78
R10	*	31	94	42	89	94	86	92	19	94	100	69	83
R11	*	33	67	50	67	75	72	78	22	67	69	100	75
R12	*	33	81	42	75	78	81	86	22	78	83	75	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	33	100	39	92	89	83	89	22	89	94	67	81
R2	*	100	33	83	36	33	25	22	89	31	31	33	33
R3	*	39	83	44	83	72	78	72	33	78	78	50	72
R4	*	92	36	83	39	36	28	25	83	33	33	33	36
R5	*	89	33	72	36	28	25	22	86	31	31	25	33
R6	*	83	25	78	28	25	17	14	89	22	22	28	25
R7	*	89	22	72	25	22	14	11	100	19	19	22	22
R8	*	22	89	33	83	86	89	100	11	86	92	78	86
R9	*	89	31	78	33	31	22	19	86	28	28	33	31
R10	*	94	31	78	33	31	22	19	92	28	28	31	31
R11	*	67	33	50	33	25	28	22	78	33	31	0	25
R12	*	81	33	72	36	33	25	22	86	31	31	25	17

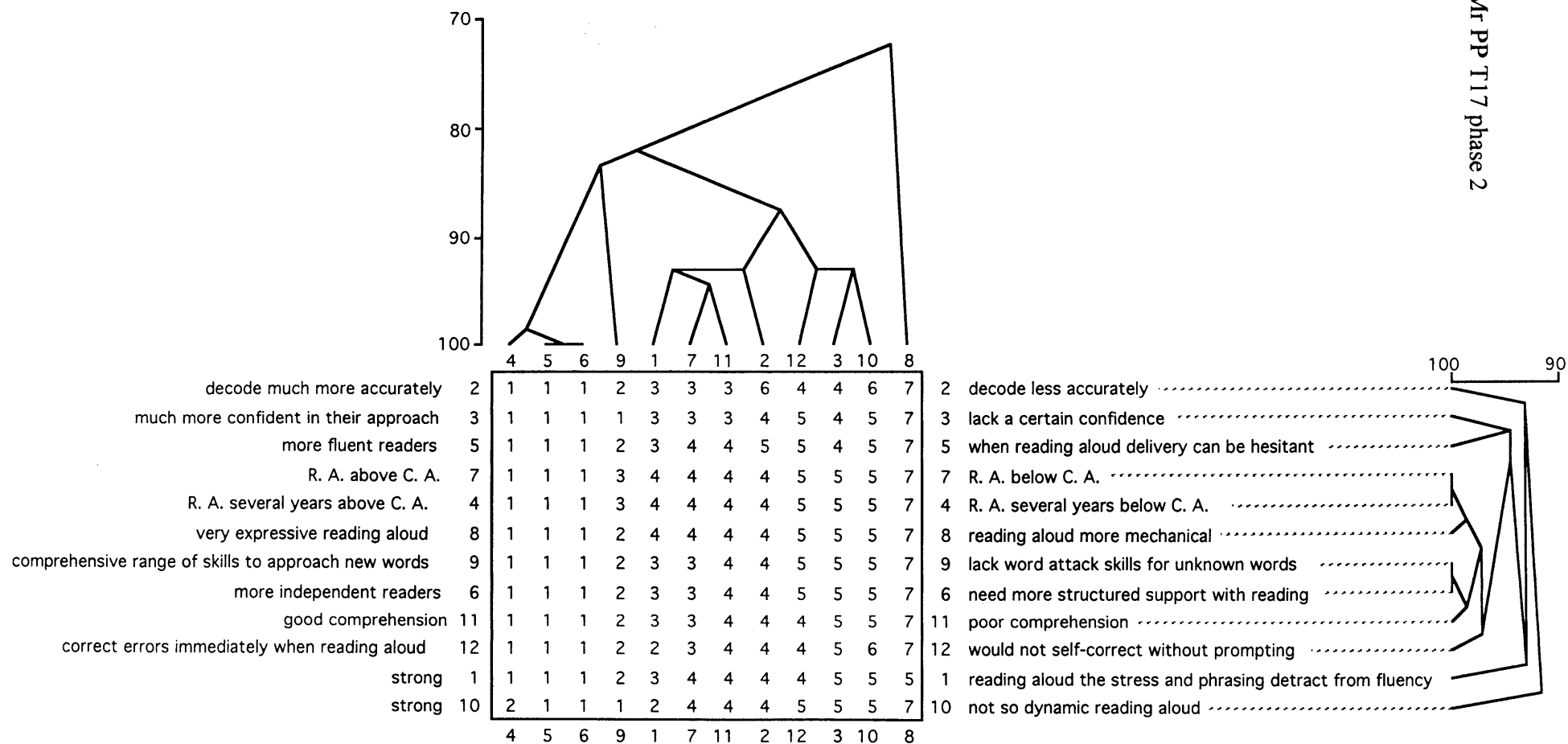
Element Links

E5 linked to E11 at 100.0
 E8 linked to E9 at 98.6
 E3 linked to E5 at 95.8
 E1 linked to E10 at 93.1
 E7 linked to E12 at 93.1
 E3 linked to E4 at 88.9
 E2 linked to E7 at 87.5
 E1 linked to E6 at 86.1
 E4 linked to E9 at 86.1
 E6 linked to E12 at 81.9
 E2 linked to E8 at 56.9

Construct Links

R1 linked to L2 at 100.0
L7 linked to R8 at 100.0
R1 linked to L10 at 94.4
L5 linked to L10 at 94.4
L2 linked to L4 at 91.7
L4 linked to L9 at 91.7
L6 linked to L7 at 88.9
L6 linked to L9 at 88.9
R8 linked to L12 at 86.1
L5 linked to L11 at 75.0
R3 linked to L12 at 72.2

FOCUS: T17 2nd grid.
 Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mr PP T17 phase 2

FOCUS Mr PP T17 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	81	72	67	65	65	93	38	82	65	88	74
E2	*	81	100	83	47	46	46	88	57	62	85	93	88
E3	*	72	83	100	39	38	38	79	65	54	93	85	93
E4	*	67	47	39	100	99	99	60	4	82	32	54	40
E5	*	65	46	38	99	100	100	58	3	83	31	53	39
E6	*	65	46	38	99	100	100	58	3	83	31	53	39
E7	*	93	88	79	60	58	58	100	44	75	72	94	81
E8	*	38	57	65	4	3	3	44	100	19	72	50	64
E9	*	82	62	54	82	83	83	75	19	100	47	69	56
E10	*	65	85	93	32	31	31	72	72	47	100	78	92
E11	*	88	93	85	54	53	53	94	50	69	78	100	86
E12	*	74	88	93	40	39	39	81	64	56	92	86	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	50	90	93	93	94	93	94	94	53	54	51
R2	*	50	100	43	49	46	44	49	47	44	86	93	93
R3	*	90	43	100	92	94	96	92	93	96	46	47	44
R4	*	93	49	92	100	94	96	100	99	96	51	53	50
R5	*	93	46	94	94	100	96	94	96	96	49	50	47
R6	*	94	44	96	96	96	100	96	97	100	47	49	46
R7	*	93	49	92	100	94	96	100	99	96	51	53	50
R8	*	94	47	93	99	96	97	99	100	97	50	51	49
R9	*	94	44	96	96	96	100	96	97	100	47	49	46
R10	*	53	86	46	51	49	47	51	50	47	100	93	93
R11	*	54	93	47	53	50	49	53	51	49	93	100	97
R12	*	51	93	44	50	47	46	50	49	46	93	97	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	58	89	51	57	54	53	57	56	53	92	96	93
R2	*	89	42	93	88	93	92	88	89	92	44	46	43
R3	*	51	93	44	50	47	46	50	49	46	93	94	92
R4	*	57	88	50	56	53	51	56	54	51	93	94	92
R5	*	54	93	47	53	50	49	53	51	49	93	94	92
R6	*	53	92	46	51	49	47	51	50	47	94	99	96
R7	*	57	88	50	56	53	51	56	54	51	93	94	92
R8	*	56	89	49	54	51	50	54	53	50	94	96	93
R9	*	53	92	46	51	49	47	51	50	47	94	99	96
R10	*	92	44	93	93	93	94	93	94	94	47	49	46
R11	*	96	46	94	94	94	99	94	96	99	49	50	47
R12	*	93	43	92	92	92	96	92	93	96	46	47	44

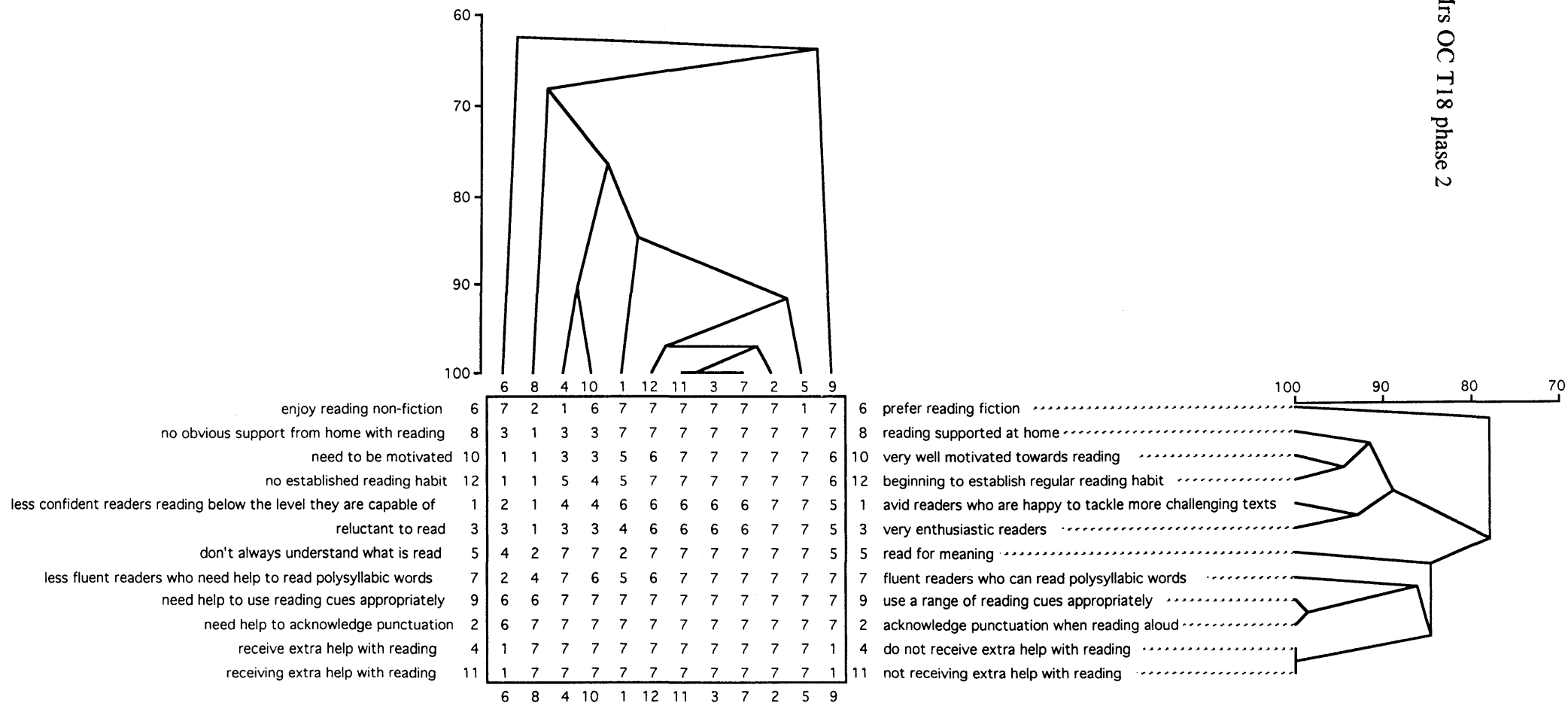
Element Links

E5 linked to E6 at 100.0
 E4 linked to E5 at 98.6
 E7 linked to E11 at 94.4
 E1 linked to E7 at 93.1
 E2 linked to E11 at 93.1
 E3 linked to E10 at 93.1
 E3 linked to E12 at 93.1
 E2 linked to E12 at 87.5
 E6 linked to E9 at 83.3
 E1 linked to E9 at 81.9
 E8 linked to E10 at 72.2

Construct Links

L4 linked to L7 at 100.0
L6 linked to L9 at 100.0
L4 linked to L8 at 98.6
L6 linked to R11 at 98.6
L8 linked to L9 at 97.2
R11 linked to R12 at 97.2
L3 linked to L5 at 94.4
L5 linked to L7 at 94.4
L1 linked to R12 at 93.1
R2 linked to L3 at 93.1
L1 linked to R10 at 91.7

FOCUS: T18 2nd grid.
 Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mrs OC T18 phase 2

FOCUS Mrs OC T18 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	79	82	69	71	50	82	60	71	76	82	85
E2	*	79	100	97	68	92	35	97	39	72	72	97	94
E3	*	82	97	100	71	89	38	100	42	75	75	100	97
E4	*	69	68	71	100	76	50	71	68	57	90	71	71
E5	*	71	92	89	76	100	26	89	44	64	67	89	86
E6	*	50	35	38	50	26	100	38	62	62	60	38	40
E7	*	82	97	100	71	89	38	100	42	75	75	100	97
E8	*	60	39	42	68	44	62	42	100	33	67	42	44
E9	*	71	72	75	57	64	62	75	33	100	61	75	75
E10	*	76	72	75	90	67	60	75	67	61	100	75	78
E11	*	82	97	100	71	89	38	100	42	75	75	100	97
E12	*	85	94	97	71	86	40	97	44	75	78	97	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	68	93	69	76	67	81	86	69	89	69	31
R2	*	68	100	64	85	81	74	85	76	99	68	85	26
R3	*	93	64	100	62	78	65	76	88	65	90	62	35
R4	*	69	85	62	100	76	58	81	69	83	69	100	25
R5	*	76	81	78	76	100	68	85	76	82	76	76	24
R6	*	67	74	65	58	68	100	69	78	75	69	58	33
R7	*	81	85	76	81	85	69	100	81	86	83	81	22
R8	*	86	76	88	69	76	78	81	100	78	92	69	22
R9	*	69	99	65	83	82	75	86	78	100	69	83	25
R10	*	89	68	90	69	76	69	83	92	69	100	69	25
R11	*	69	85	62	100	76	58	81	69	83	69	100	25
R12	*	31	26	35	25	24	33	22	22	25	25	25	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	39	35	40	31	35	36	31	28	33	31	31	89
R2	*	35	3	39	15	22	26	18	26	4	32	15	74
R3	*	40	39	42	38	36	38	38	29	38	32	38	85
R4	*	31	15	38	0	24	42	19	31	17	31	0	75
R5	*	35	22	36	24	19	35	24	29	24	29	24	82
R6	*	36	26	38	42	35	6	36	25	28	33	42	69
R7	*	31	18	38	19	24	36	22	25	19	28	19	86
R8	*	28	26	29	31	29	25	25	17	25	19	31	89
R9	*	33	4	38	17	24	28	19	25	6	31	17	75
R10	*	31	32	32	31	29	33	28	19	31	22	31	94
R11	*	31	15	38	0	24	42	19	31	17	31	0	75
R12	*	89	74	85	75	82	69	86	89	75	94	75	22

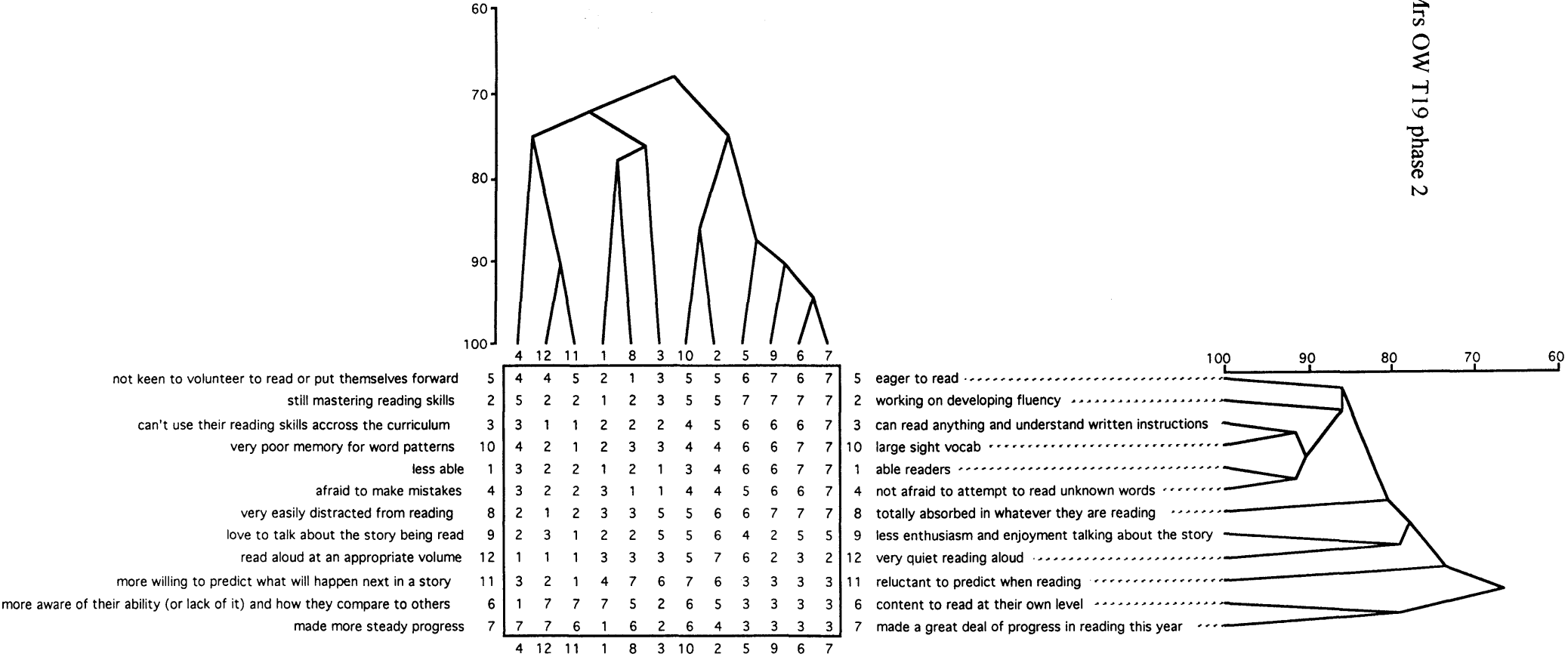
Element Links

E3 linked to E7 at 100.0
 E3 linked to E11 at 100.0
 E2 linked to E7 at 97.2
 E11 linked to E12 at 97.2
 E2 linked to E5 at 91.7
 E4 linked to E10 at 90.3
 E1 linked to E12 at 84.7
 E1 linked to E10 at 76.4
 E4 linked to E8 at 68.1
 E5 linked to E9 at 63.9
 E6 linked to E8 at 62.5

Construct Links

L4 linked to L11 at 100.0
L2 linked to L9 at 98.6
L10 linked to R12 at 94.4
L1 linked to L3 at 93.1
L8 linked to L10 at 91.7
L1 linked to R12 at 88.9
L7 linked to L9 at 86.1
L2 linked to L4 at 84.7
L5 linked to L7 at 84.7
L3 linked to L5 at 77.8
L6 linked to L8 at 77.8

FOCUS: T19 2nd grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mrs OW T19 phase 2

FOCUS Mrs OW T19 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	53	74	62	44	42	36	78	46	58	72	74
E2	*	53	100	65	60	75	67	61	58	62	86	47	49
E3	*	74	65	100	64	54	54	49	76	50	68	57	61
E4	*	62	60	64	100	57	54	51	68	61	68	71	75
E5	*	44	75	54	57	100	89	83	42	88	67	39	40
E6	*	42	67	54	54	89	100	94	39	90	61	36	38
E7	*	36	61	49	51	83	94	100	33	90	56	33	35
E8	*	78	58	76	68	42	39	33	100	43	69	72	74
E9	*	46	62	50	61	88	90	90	43	100	57	43	42
E10	*	58	86	68	68	67	61	56	69	57	100	58	60
E11	*	72	47	57	71	39	36	33	72	43	58	100	90
E12	*	74	49	61	75	40	38	35	74	42	60	90	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	88	35	92	46	44	71	81	69	90	64	51
R2	*	88	100	36	82	42	43	64	85	71	89	60	50
R3	*	35	36	100	40	83	74	50	38	51	42	60	72
R4	*	92	82	40	100	49	50	74	81	72	88	69	54
R5	*	46	42	83	49	100	62	58	46	60	50	51	61
R6	*	44	43	74	50	62	100	57	47	58	46	61	62
R7	*	71	64	50	74	58	57	100	74	74	69	65	56
R8	*	81	85	38	81	46	47	74	100	78	85	53	51
R9	*	69	71	51	72	60	58	74	78	100	74	58	51
R10	*	90	89	42	88	50	46	69	85	74	100	62	56
R11	*	64	60	60	69	51	61	65	53	58	62	100	74
R12	*	51	50	72	54	61	62	56	51	51	56	74	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	33	38	90	39	79	72	51	39	53	40	53	62
R2	*	38	31	86	40	86	71	53	38	51	39	54	64
R3	*	90	86	36	90	44	49	72	85	76	92	62	50
R4	*	39	40	90	44	82	69	51	42	56	46	58	65
R5	*	79	86	44	82	47	54	61	79	71	83	71	58
R6	*	72	71	49	69	54	39	79	69	72	76	67	62
R7	*	51	53	72	51	61	79	42	43	57	53	62	67
R8	*	39	38	85	42	79	69	43	33	47	43	64	74
R9	*	53	51	76	56	71	72	57	47	50	57	75	79
R10	*	40	39	92	46	83	76	53	43	57	47	60	69
R11	*	53	54	62	58	71	67	62	64	75	60	44	49
R12	*	62	64	50	65	58	62	67	74	79	69	49	36

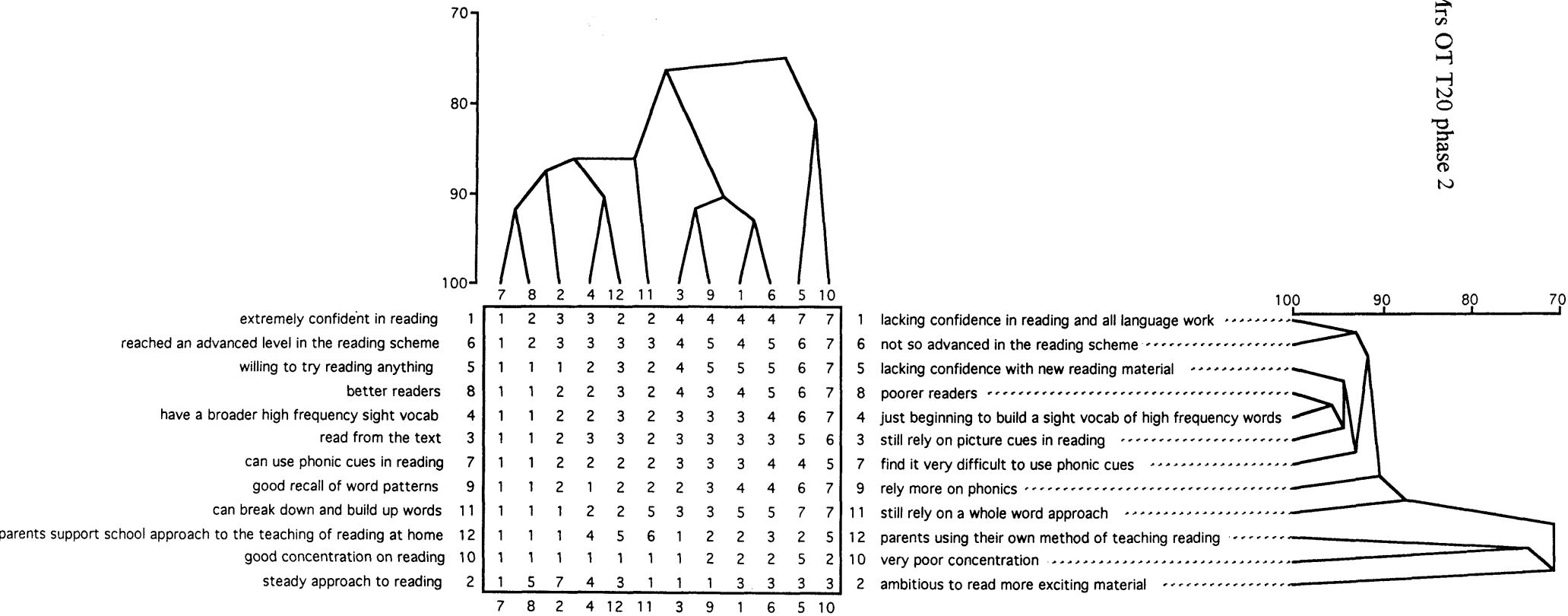
Element Links

E6 linked to E7 at 94.4
 E6 linked to E9 at 90.3
 E11 linked to E12 at 90.3
 E5 linked to E9 at 87.5
 E2 linked to E10 at 86.1
 E1 linked to E8 at 77.8
 E3 linked to E8 at 76.4
 E2 linked to E5 at 75.0
 E4 linked to E12 at 75.0
 E1 linked to E11 at 72.2
 E3 linked to E10 at 68.1

Construct Links

L1 linked to L4 at 91.7
R3 linked to L10 at 91.7
L1 linked to L10 at 90.3
L2 linked to R3 at 86.1
L2 linked to R5 at 86.1
L4 linked to L8 at 80.6
L6 linked to R7 at 79.2
L9 linked to R12 at 79.2
L8 linked to L9 at 77.8
R11 linked to R12 at 73.6
L6 linked to R11 at 66.7

FOCUS: T20 2nd grid.
Elements: 12, Constructs: 12, Range: 1 to 7, Context: thinking about children's reading



FOCUS Mrs OT T20 phase 2

FOCUS Mrs OT T20 phase 2

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12

E1	*	100	68	88	74	71	93	58	61	90	61	72	78
E2	*	68	100	75	86	39	61	79	88	69	29	76	79
E3	*	88	75	100	78	58	81	71	68	92	49	76	82
E4	*	74	86	78	100	44	69	76	82	75	40	85	90
E5	*	71	39	58	44	100	75	29	32	64	82	43	49
E6	*	93	61	81	69	75	100	51	54	86	68	68	74
E7	*	58	79	71	76	29	51	100	92	65	19	75	72
E8	*	61	88	68	82	32	54	92	100	62	22	72	75
E9	*	90	69	92	75	64	86	65	62	100	54	74	79
E10	*	61	29	49	40	82	68	19	22	54	100	42	47
E11	*	72	76	76	85	43	68	75	72	74	42	100	86
E12	*	78	79	82	90	49	74	72	75	79	47	86	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12

R1	*	100	58	86	89	46	54	85	90	44	40	46	58
R2	*	58	100	58	56	57	62	57	60	64	71	54	69
R3	*	86	58	100	94	51	57	93	90	42	38	49	53
R4	*	89	56	94	100	46	51	93	96	39	35	43	53
R5	*	46	57	51	46	100	92	50	44	88	69	89	65
R6	*	54	62	57	51	92	100	56	53	85	64	83	65
R7	*	85	57	93	93	50	56	100	89	43	36	47	51
R8	*	90	60	90	96	44	53	89	100	40	39	42	57
R9	*	44	64	42	39	88	85	43	40	100	79	88	69
R10	*	40	71	38	35	69	64	36	39	79	100	69	74
R11	*	46	54	49	43	89	83	47	42	88	69	100	71
R12	*	58	69	53	53	65	65	51	57	69	74	71	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12

R1	*	53	64	50	47	88	93	51	49	89	68	85	64
R2	*	64	42	72	67	65	65	71	62	53	43	62	61
R3	*	50	72	47	44	85	85	49	49	89	79	82	78
R4	*	47	67	44	42	90	88	46	43	94	76	88	72
R5	*	88	65	85	90	39	47	83	94	40	42	42	60
R6	*	93	65	85	88	47	56	81	92	49	47	50	62
R7	*	51	71	49	46	83	81	50	47	90	81	83	76
R8	*	49	62	49	43	94	92	47	44	93	72	89	68
R9	*	89	53	89	94	40	49	90	93	36	32	38	50
R10	*	68	43	79	76	42	47	81	72	32	17	39	40
R11	*	85	62	82	88	42	50	83	89	38	39	33	49
R12	*	64	61	78	72	60	62	76	68	50	40	49	36

Element Links

E1 linked to E6 at 93.1
 E3 linked to E9 at 91.7
 E7 linked to E8 at 91.7
 E1 linked to E9 at 90.3
 E4 linked to E12 at 90.3
 E2 linked to E8 at 87.5
 E2 linked to E4 at 86.1
 E11 linked to E12 at 86.1
 E5 linked to E10 at 81.9
 E3 linked to E11 at 76.4
 E5 linked to E6 at 75.0

Construct Links

L4	linked to	L8	at	95.8
L3	linked to	L4	at	94.4
R5	linked to	L8	at	94.4
L1	linked to	R6	at	93.1
L3	linked to	L7	at	93.1
R5	linked to	R6	at	91.7
L7	linked to	R9	at	90.3
R9	linked to	R11	at	87.5
R10	linked to	R12	at	73.6
R2	linked to	R10	at	70.8
R11	linked to	R12	at	70.8

Appendix L

Main Study Phase 1 Constructs and Contrasts by Coding Category

A Achievement

T2 F6 keen and able to read independently	<i>T2 F6 not able to read independently</i>
T4 A1 fluent fast readers	<i>T4 A1 beginning reader</i>
T4 H8 higher achievement in reading	<i>T4 H8 lower achievement in reading</i>
T4 K11 good all round readers	<i>T4 K11 less good all round readers</i>
T4 L12 extremely able readers	<i>T4 L12 less able readers</i>
T5 B2 still on the reading scheme	<i>T5 B2 able and fluent readers</i>
T5 C3 still on the reading scheme	<i>T5 C3 free readers</i>
T5 D4 struggling readers	<i>T5 D4 very capable readers</i>
T6 D4 lower reading age	<i>T6 D4 high reading age</i>
T6 J10 reading of a lower standard	<i>T6 J10 reading of a high standard</i>
T7 C3 very good readers	<i>T7 C3 more average reader</i>
T7 E5 good readers	<i>T7 E5 less good readers generally</i>
T7 K11 good readers	<i>T7 K11 very poor readers</i>
T8 A1 at the very beginning stages of reading	<i>T8 A1 fluent readers</i>
T8 K11 below average in reading compared to peers	<i>T8 K11 above average</i>
T9 A1 don't know their alphabet	<i>T9 A1 read fluently</i>
T9 B2 lacking ability	<i>T9 B2 more able</i>
T9 E5 poor readers	<i>T9 E5 very fluent reader</i>
T9 J10 just beginning reading	<i>T9 J10 higher reading ability</i>
T10 A1 poor readers	<i>T10 A1 better readers</i>
T10 B2 not so developed in their reading	<i>T10 B2 very fluent readers</i>
T10 G7 very poor readers	<i>T10 G7 better readers</i>
T10 H8 not on the main reading scheme	<i>T10 H8 on the main reading scheme</i>
T11 A1 very strong independent readers	<i>T11 A1 improving readers</i>
T11 I9 exceptionally good readers	<i>T11 I9 reading ability appropriate to CA</i>
T12 H8 most able readers in class	<i>T12 H8 least able readers in the class</i>
T14 A1 enjoy sharing books with an adult but can't read independently	<i>T14 A1 can read independently</i>
	<i>T14 B2 can read</i>
T14 H8 reading difficulties	<i>T14 H8 fluent readers</i>
T15 B2 lower reading ability	<i>T15 B2 higher reading ability</i>
T15 C3 bottom reading group	<i>T15 C3 top reading group</i>
T15 I9 less able reader (RA below CA)	<i>T15 I9 very able readers (RA above CA)</i>
T16 B2 only just beginning reading	<i>T16 B2 higher reading ability</i>
T16 G7 non-readers	<i>T16 G7 reading well at their level</i>
T16 H8 non-readers	<i>T16 H8 competent</i>
T16 J10 lower reading ability	<i>T16 above average readers</i>
T17 D4 RA several years above CA	<i>T17 D4 RA several years below CA</i>
T17 G7 RA above CA	<i>T17 G7 RA below CA</i>
T19 A1 less able	<i>T19 A1 able readers</i>

T19 B2 still mastering reading skills
 T20 F6 not so advanced in the reading scheme
 T20 H8 poorer readers

T19 B2 working on developing fluency
T20 F6 reached a similar level in the reading scheme
T20 H8 better readers

a 1 performance reading aloud

T2 E5 read very expressively
 T3 J10 read fluently
 T4 F6 very fluent in reading aloud
 T5 A1 lack fluency and expression
 T5 E5 regularly miscue when reading aloud
 T5 L12 read aloud monotonously
 T6 B2 read aloud with very little expression
 T6 I9 careless reading aloud
 T7 A1 louder
 T7 I9 read with more expression
 T8 B2 read word by word

 T8 F6 less fluent reading word by word
 T9 L12 lack expression in reading aloud
 T10 E5 read hesitantly
 T11 D4 read aloud with a great deal of expression
 and characterisation
 T13 L12 a bit coy about reading to others
 T17 A1 when reading aloud strong, confident,
 fluent reading
 T17 B2 decode much more accurately
 T17 E5 more fluent readers
 T18 G7 less fluent readers
 T17 H8 very expressive reading aloud
 T17 L12 correct errors immediately when reading
 aloud
 T17 J10 strong, bold, confident delivery reading
 aloud
 T18 B2 need help to acknowledge punctuation
 T19 L12 read aloud at an appropriate volume

T2 E5 read monotonously
T3 J10 read hesitantly
T4 F6 hesitant reading aloud
T5 A1 very fluent
T5 E5 don't usually miscue when reading aloud
T5 L12 read aloud fantastically
T6 B2 read with far more feeling and expression
T6 I9 very careful and accurate in reading aloud
T7 A1 difficult to hear them reading
T7 I9 not such fluent readers
T8 B2 can read ahead which enables them to read
expressively

T8 F6 read fluently
T9 L12 good expression in reading aloud

T11 D4 read aloud with less expression

T13 L12 love reading to anyone!
T17 A1 when reading aloud the stress and phrasing
detract from fluency
T17 B2 decode less accurately
T17 E5 when reading aloud delivery can be hesitant
T18 G7 fluent readers who can read polysyllabic words
T17 H8 reading aloud more mechanical
T17 L12 would not self-correct without prompting

T17 J10 not so dynamic reading, lacks pace and energy

T18 B2 acknowledge punctuation when reading aloud
T19 L12 very quiet reading aloud

a 2 reading comprehension

T2 D4 good comprehension skills
 T2 G7 better at comprehension
 T3 F6 good comprehension skills
 T3 G7 good comprehension

T2 D4 poorer comprehension skills
T2 G7 not so good at comprehension
T3 F6 poor comprehension skills
T3 G7 less good comprehension

T4 E5 good listening comprehension	<i>T4 E5 find it more difficult to understand</i>
T4 J10 read with understanding	<i>T4 J10 find comprehension more difficult</i>
T8 H8 poorer comprehension	<i>T8 H8 good comprehension of what is read</i>
T8 I9 read words without questioning if they don't understand the meaning	<i>T8 I9 always question when reading unknown words</i>
	<i>T10 E5 read with understanding</i>
T17 K11 good comprehension	<i>T17 K11 poor comprehension</i>
T18 E5 don't always understand what is read	<i>T18 E5 read for meaning</i>

a 3 support received with reading through school

T10 J10 have SEN help and will go to remedial reading teacher next year	
T11 K11 read once a week to the teacher	<i>T11 K11 have extra practice reading aloud</i>
T12 C3 not currently receiving reading support	<i>T12 C3 receive reading support</i>
T12 F6 not receiving reading support	<i>T12 F6 receiving reading support</i>
T15 K11 receive extra help with reading outside the classroom	<i>T15 K11 do not receive extra help with reading outside the classroom</i>
T16 K11 have extra help with reading	<i>T16 K11 don't have extra help with reading</i>
T18 D4 receive extra help with reading	<i>T18 D4 do not receive extra help with reading</i>
T18 K11 receiving extra help with reading	<i>T18 K11 not receiving extra help with reading</i>

a 4 achievement fulfilling potential, or underachieving

a 5 rate of progress with reading

T1 H8 have not made such progress	<i>T1 H8 have made better progress with reading this term</i>
T3 A1 made a better start with reading	<i>T3 A1 made a slow start with reading</i>
T3 B2 maintained progress over the summer vacation	<i>T3 B2 fell behind in reading over the summer vacation</i>
T3 K11 making some progress	<i>T3 K11 not making the progress expected</i>
T9 D4 made a great deal of progress in reading this year	<i>T9 D4 made little progress in reading this year</i>
	<i>T10 J10 progressed at normal rate through reading scheme</i>
T11 J10 making rapid progress	<i>T11 J10 rate of progress has levelled off</i>
T12 G7 made great progress in reading and all language skills this year	<i>T12 G7 more normal progress</i>
T15 G7 has not moved up a level in the scheme this year	<i>T15 G7 have moved up a level in the scheme this year</i>
T15 J10 made a lot of progress this year	<i>T15 J10 not made very much progress</i>
T19 G7 made a great deal of progress in reading this year	<i>T19 G7 made more steady progress</i>

a 6 independence in selecting reading materials

T4 C3 choose books at an appropriate level	<i>T4 C3 can't choose books at an appropriate level</i>
T5 H8 don't select books for their interest	<i>T5 H8 more inclined to select books for their interest</i>
T11 C3 choose reading books freely	<i>T11 C3 working through ORT books</i>
T11 F6 coping better with less structured reading materials	<i>T11 F6 need the security of more structured reading materials</i>
T11 G7 good at selecting appropriate reading materials	<i>T11 G7 misjudge the suitability of reading materials</i>
T11 H8 reading is self-regulated	<i>T11 H8 reading within the school reading plan</i>
T11 L12 have free choice in reading materials	<i>T11 L12 working through the ORT (and enjoying it)</i>
T13 I9 can choose their own books	<i>T13 I9 need guidance to choose appropriate reading material</i>
T17 F6 more independent readers	<i>T17 F6 need more structured support with reading</i>

a 7 confidence

T1 D4 need more confidence with reading to have a go	<i>T1 D4 more confident in reading</i>
T6 H8 lack confidence	<i>T6 H8 read aloud very confidently</i>
T7 G7 very confident readers	<i>T7 G7 lacking confidence in their own ability</i>
T7 J10 will have a go at tackling unknown words	<i>T7 J10 need a lot of encouragement and reassurance with reading</i>
T10 I9 lack confidence tackling unknown words	<i>T10 I9 very confident readers</i>
T12 E5 more confident in reading to an audience	<i>T12 E5 less confidence in reading to an audience</i>
T12 I9 readily read to an audience	<i>T12 I9 less willing to read to an audience</i>
T13 A1 confident readers	<i>T13 A1 need a lot of encouragement</i>
T13 E5 confident in reading to somebody	<i>T13 E5 reticent reading to someone</i>
T13 K11 very confident readers who can read independently	<i>T13 K11 still need confidence building through reading aloud</i>
T14 F6 still lack confidence in their reading ability	<i>T14 F6 their confidence has increased dramatically</i>
T16 A1 struggling readers who lack confidence	<i>T16 A1 fluent readers</i>
T16 C3 hesitant shy readers afraid of making mistakes	<i>T16 C3 prepared to guess or have a go at unknown words</i>
T16 F6 lacking confidence in reading	<i>T16 F6 keen confident readers</i>
T17 C3 much more confident in their approach	<i>T17 C3 lack a certain confidence</i>
T18 A1 less confident readers	<i>T18 A1 avid readers who are happy to tackle more challenging texts</i>
T19 D4 afraid to make mistakes	<i>T19 D4 not afraid to attempt to read unknown words</i>
T19 E5 eager to read	<i>T19 E5 not keen to volunteer to read or put themselves forward</i>
T20 A1 lacking confidence in reading and all	<i>T20 A1 extremely confident in reading</i>

language work

T20 E5 lacking confidence with new material

T20 E5 willing to try reading anything

B Motivation

T1 G7 impatient with reading tasks

T1 G7 keen, enjoy reading one-to-one and taking books home

T2 H8 insecure and less enthusiastic about reading

T2 L12 very enthusiastic

T2 L12 less well motivated

T3 D4 really enjoys reading

T3 D4 less motivation for reading

T3 L12 more motivated

T3 L12 less motivated

T5 F6 not enthusiastic about reading

T5 F6 very enthusiastic readers

T5 J10 more inclined to give up and lose interest

T5 J10 more inclined to finish reading a book once they have begun

T6 A1 not as enthusiastic readers

T6 A1 very enthusiastic readers

T6 C3 not such enthusiastic readers

T6 C3 very enthusiastic

T6 E5 little motivation reflected in lack of progress

T6 F6 less enthusiastic

T6 F6 very enthusiastic for all reading

T8 G7 less enthusiastic about reading

T8 G7 very enthusiastic about reading

T10 D4 reluctant to read

T10 D4 very keen to read

T10 K11 poor motivation in reading and all school work

T10 K11 more motivated

T11 B2 read purely for pleasure

T12 A1 keen readers

T12 A1 reluctant readers

T14 C3 not as eager

T14 C3 keen

T16 D4 no interest in reading

T16 D4 enjoy reading

T18 C3 reluctant to read

T18 C3 very enthusiastic readers

T18 J10 very well motivated towards reading

T19 I9 love to talk about the story being read

T19 I9 less enthusiasm and enjoyment talking about the story

b 1 intrinsic

T6 E5 have self-motivation for reading

T13 D4 very good at reading to themselves

b 2 needing encouragement

T13 D4 need to read to someone because they need the feedback and encouragement

T18 J10 need to be motivated

b 3 preferences for reading material

T5 K11 very narrow subject interest

T5 K11 read more widely

T6 G7 only read fiction voluntarily	<i>T6 G7 read a wide variety of books</i>
T8 D4 only read school books	<i>T8 D4 read beyond school books</i>
T14 J10 choose books because of the illustrations	<i>T14 J10 more attracted by the written content when choosing books</i>
T18 F6 enjoys reading non-fiction	<i>T18 F6 prefer reading fiction</i>

C Strategies

T1 B2 need constant reinforcement	<i>T1 B2 good understanding of the formation of words</i>
T1 E5 have less skills and practice in skills	<i>T1 E5 have had a lot more input on skills resulting in better skills and confidence</i>
T1 L12 less time in school has resulted in less skills	<i>T1 L12 have had a lot more input and so have developed more skills</i>
T2 K11 can use a wider range of strategies	
T4 G7 have a wide range of word attack skills	<i>T4 G7 haven't got the strategies/word attack skills for new vocab</i>
T5 G7 need a lot of prompting to attempt decoding	<i>T5 G7 have strategies for decoding unknown words</i>
	<i>T8 E5 range of word attack skills available</i>
T7 H8 find it easier to learn new words	<i>T7 H8 find it difficult to learn new words</i>
	<i>T11 B2 still working on word building</i>
T13 B2 confidently using many reading cues	<i>T13 B2 still learning reading strategies</i>
T14 G7 won't attempt to read unknown words	<i>T14 G7 confident in using word attack strategies</i>
T17 I9 comprehensive range of skills to approach new words	<i>T17 I9 lack word attack skills for unknown words</i>
T18 I9 need help to use reading cues appropriately	<i>T18 I9 use a range of reading cues appropriately</i>

c 1 phonic cues

T1 C3 need to build up knowledge of sounds through repetition	<i>T1 C3 have already got a good knowledge of sounds</i>
T1 I9 struggling with the alphabet	<i>T1 I9 know their letter names and sounds</i>
T2 B2 better at sounding out words	<i>T2 B2 smaller range of sounds known</i>
	<i>T2 K11 only strategy to sound out unknown words</i>
T7 L12 more confident with sounds and blends	<i>T7 L12 unsure of initial sounds</i>
T9 I9 less able to sound out words	<i>T9 I9 persevere with sounding out unknown words</i>
T10 F6 can manage initial sounds but don't recognise word/spelling patterns	<i>T10 have made the connection between reading and spelling</i>
T12 L12 know their initial letter sounds	<i>T12 L12 still unsure of initial letter sounds</i>
T14 B2 can't read and don't know initial letter sounds	
T20 G7 find it very difficult to use phonic cues	<i>T20 G7 can use phonic cues in reading</i>
T20 I9 rely more on phonics	<i>T20 I9 good recall of word patterns</i>

c 2 sight vocabulary

T2 A1 fluent readers	<i>T2 A1 sight vocab is much less</i>
T2 C3 very good sight vocab	<i>T2 C3 very limited sight vocab</i>
T2 I9 better sight vocab	<i>T2 I9 poor sight vocab</i>
T8 E5 rely on a very limited sight vocab	
T19 J10 very poor memory for word patterns	<i>T19 J10 large sight vocab</i>
T20 D4 just beginning to build up a sight vocab of high frequency words	<i>T20 D4 have a broader high frequency sight vocab</i>
T20 K11 still rely on a whole word approach	<i>T20 K11 can break down and build up words</i>

c 3 picture cues

T20 C3 still rely on picture cues in reading	<i>T20 C3 read from the text</i>
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D Pre-requisites for success in reading

T1 F6 reluctance due to inappropriateness of task	<i>T1 F6 reading tasks are appropriate and within their capabilities</i>
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d 1 parental support

T1 K11 there isn't so much parental support	<i>T1 K11 there is a lot of parental support at home</i>
T2 H8 have made better progress due to good home support	
T3 E5 get a lot of home support	<i>T3 E5 get less home support</i>
T4 I9 read more frequently at home	<i>T4 I9 read less frequently at home</i>
T7 D4 natural reader	<i>T7 D4 need home support</i>
T7 F6 a lot of home support with reading	<i>T7 F6 get very little home support with reading</i>
T9 C3 less opportunity to read at home	<i>T9 C3 more opportunity to read at home</i>
T9 G7 lack of parental time to listen to reading	<i>T9 G7 spend a lot of time reading to parents</i>
T10 C3 need to read a lot more regularly at home	<i>T10 C3 read a lot at home to parents</i>
	<i>T10 L12 a lot of parental support and help with reading</i>
T10 L12 lack of parental support has caused underachievement	
T12 J10 parents didn't attend parents evening	<i>T12 J10 talked to parents about reading at parents evening</i>
T13 F6 get a lot of help from parents hearing them read	<i>T13 F6 parents keen but can't help with reading</i>
T14 K11 parents are negative about the child	<i>T14 K11 positive parental input generally</i>
T15 D4 parents are less supportive	<i>T15 D4 have parents who are keen for them to do well and help with problems</i>
T16 L12 not supported with reading at home	<i>T16 L12 parental support with reading</i>
T18 H8 no obvious support from home with reading	<i>T18 H8 reading supported at home</i>
T20 L12 parent using their own method of teaching reading	<i>T20 L12 parents support school approach to the teaching of reading at home</i>

d 2 English language proficiency and vocabulary

T2 J10 larger spoken vocab	<i>T2 J10 less wide vocab</i>
T3 C3 English skills are good	<i>T3 C3 English vocab and comprehension are poor which has held up reading</i>
T8 C3 has a very limited vocab	<i>T8 C3 can learn and use new vocab from their reading</i>
T15 E5 lack of English vocab creates difficulty in reading in context	<i>T15 E5 English proficiency and vocab are excellent and they can use this in reading</i>

d 3 concentration

T1 A1 poor concentration	<i>T1 A1 stay on task</i>
T3 H8 better concentration reflected in better reading progress	<i>T3 H8 lack concentration</i>
T5 I9 don't read in silent reading time	<i>T5 I9 immersed in reading in silent reading time</i>
T6 K11 sometimes lack concentration reading silently	<i>T6 K11 read silently with great concentration</i>
T6 L12 easily distracted	<i>T6 L12 capable of more prolonged concentration</i>
T9 K11 can't concentrate on reading	<i>T9 K11 concentration span for reading is a lot longer</i>
T14 D4 like to use sharing books time for sharing lots of other information	<i>T14 D4 in sharing books they concentrate wholly on the story</i>
T19 H8 very easily distracted from reading	<i>T19 H8 totally absorbed in whatever they are reading</i>
T20 J10 very poor concentration	<i>T20 J10 good concentration on reading</i>

d 4 effort

T9 F6 unwilling to start reading	<i>T9 F6 persevere with reading</i>
T13 J10 need a lot of pushing to put the effort in	<i>T13 J10 put a lot of effort into their reading</i>
T15 A1 a lot of effort and a lot of achievement	<i>T15 A1 don't put the effort into reading that they ought</i>
T16 I9 little interest or effort, not much reading outside school	<i>T16 I9 try very hard with reading</i>

E Other

T1 J10 don't use their knowledge of reading in writing	<i>T1 J10 using their reading knowledge in their writing</i>
T3 I9 take good care of reading books	<i>T3 I9 don't look after reading books</i>
T4 B2 able to transfer book knowledge to written work	<i>T4 B2 less able to transfer knowledge from books to written work</i>
T4 D4 more willing to talk about reading	<i>T4 D4 reluctant to talk about reading</i>
T7 B2 getting on well with the structured reading scheme	<i>T7 B2 not used to the structured reading scheme</i>
T9 H8 lack an ability to keep a book because they don't care and don't want to read them	<i>T9 H8 never lose books</i>
T11 E5 always complete their reading diary	<i>T11 E5 reluctant to complete their reading diary</i>

T12 B2 have cross-age reading partners	<i>T12 B2 don't have cross age-reading partners</i>
T12 D4 take books home more regularly	<i>T12 D4 take books home less regularly</i>
T12 K11 have a cross-age reading partner	<i>T12 K11 don't have cross-age reading partner</i>
T13 C3 can read longer books and remember the story in between	<i>T13 C3 need to read a whole story in one sitting if possible</i>
T14 E5 don't take books home to share	<i>T14 E5 always take books home and share them</i>
T14 I9 don't share books with other children well	<i>T14 I9 share books with other children</i>
T14 L12 couldn't cope with group reading	<i>T14 L12 could cope with group reading</i>
T15 F6 reading work is only based on reading book	<i>T15 F6 reading work involves research skills and information retrieval from wider sources</i>
T15 H8 more reluctant to ask for help when experiencing difficulties	<i>T15 H8 give up easily and request help</i>
T15 L12 would never offer to help another child	<i>T15 L12 in a mixed ability reading group would help another child struggling</i>
T18 L12 no established reading habit	<i>T18 L12 beginning to establish regular reading habit</i>
T19 F6 more aware of their ability (or lack of it) and how they compare to others	<i>T19 F6 content to read at their own level</i>
T19 K11 more willing to predict what will happen next in a story	<i>T19 K11 reluctant to predict when reading</i>
T20 B2 ambitious to read more exciting material; impatient to get on to the next level	<i>T20 B2 steady approach to reading</i>

e 1 SEN

T8 J10 specific difficulty with reading and writing	<i>T8 J10 no specific problems</i>
T16 E5 have specific problems which affect reading	<i>T16 E5 no specific problems which affect reading</i>

e 2 reading limits access to the curriculum

T8 L12 difficulty with reading limits access to the rest of the curriculum	<i>T8 L12 reading doesn't limit their access to the rest of the curriculum</i>
T13 G7 can read instructions and get on with reading work	<i>T13 G7 need help reading instructions and continual support with reading work</i>
T13 H8 independent reader	<i>T13 H8 still need a lot of help with reading and reading instructions</i>
T19 C3 can't use their reading skills across the curriculum	<i>T19 C3 can read anything and understand written instructions</i>

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