THE DESIGN, IMPLEMENTATION AND EVALUATION OF AN EDUCATIONAL PROGRAMME FOR CHILDREN WITH AUTISM IN OIL-RICH COUNTRIES: THE CASE OF KUWAIT

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Kanner's research in 1943 marked the beginning of a new approach to autism, which would, henceforth, be viewed as a special kind of impairment. Since then there has been a steady growth in the educational programmes for autistic children in developing countries, while not a single comprehensive programme exists in oil rich countries. The impetus for this study came from the failure of these latter countries to provide early intervention and adequate educational facilities to maximise the individual abilities of autistic children.

The study focuses on identifying the educational and training needs of autistic children in Kuwait, designing a programme based on those needs, implementing it effectively and evaluating its outcomes. Kuwait was selected as a case study for other oil rich countries. The design of the programme will depend on identifying 'from the parents perspective' the educational and training needs of autistic children through a field survey. The evaluation of the programme's impact will be made through detailed interviews with teachers and parents as well as by a panel of experts.

The study will examine the existing facilities for special education, specifically those for autistic children, the level of awareness needs and public attitudes. Current trends in educating autistic children will be reviewed and major components of educational programmes will be identified.

The study is intended to demonstrate the viability of establishing educational programmes for autistic children compatible with the society's cultural values. Implications for future development and suggestions for further enhancement of such programmes are discussed.

The study will provide a model of an effective approach for meeting the education needs of autistic children. It will show that it is possible to design and implement a successful educational programme in oil rich countries, such as Kuwait.

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Abbreviations

ABC	Autism Behaviour Checklist
ADA	American with Disabilities Act of 1990
AHTACH	The Association of Heads and Teachers of Adult and Child with Autism
BOS	Behaviour Observation Scale for Autism
BRIAACC	Behaviour Rating Checklist for Behaviour-disturbed Children
CARS	Childhood Autism Rating Scale
CAT Scan	Computerised Axial Tomography
CHAT	Checklist for Autism in Toddlers
DES	Department of Education and Science
DFE	Department for Education
DNA	Deoxyribonucleic Acid: A sequency of nucleotides, usually double standed
DSM-III-R	Diagnostic and Statistical Manual of Mental Disorders, Third Edition - Revised
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition
EEG	Electron Encephalo Gram
HMI	Her Majesty's Inspectorate (of schools)
IEP	Individual Education Programme
ISP	Individualized Service Plan
ISS	Individual Student Schedule
IT	Information Technology
KAPF	Kuwait Awqaf Public Foundation
KSH	Kuwait Society for the Handicapped
LEA	Local Education Authority
MOE	Ministry of Education
MOSA	Ministry of Social Affairs
MOPH	Ministry of Public Health
MRI-Scan	Magnetic Resonance Imaging Scan
NGO	Non Governmental Organization
PEP	Psycho Educational Profile

PDD	Pervasive Developmental Disorder
SEN	Special Education Needs
SENCO	Special Education Needs Coordination
SPECT	Single Photo Emission Computer Tomography
TEACCH	Treatment and Education of Autistic and related Communication Handicapped Children and Adults
WISC-R	Wechster Intelligence Scale for Children-Revised
UCPC	United Community Planning Corporation
UNDP	United Nations Development Program
UNESCO	United Nations Education, Scientific and Cultural Organization

CONTENTS

Part One

As stated in section 1.6 of Chapter One, part

one contains five chapters (from 1-5).

It delivers the key concepts and outlines the

gathering of data, both from the Literature

and the empirical research.

CHAPTER ONE: AIMS AND ORGANIZATION OF THE STUDY

1.1 INTRODUCTION

This is a research about designing, implementing and evaluating an educational programme for children with autism in oil rich countries. Autism, a severe form of developmental impairment, had attracted considerable interest and attention over the previous three decades in many developed countries. A similar interest is current in Kuwait and other oil rich countries, stimulated by the unique characteristics of the syndrome, its complexity, the bizarre behaviour and its different causes which frustrate both educationalists and parents. Since autism is a severe life-long impairment, it impacts strongly on the family, the school and the wider community. As such, the condition presents a great challenge to developing as well as developed societies. It is a puzzle that remains unresolved.

It was not until the last decade of the 18th century that attempts were made to educate children with special needs. However, for children with autism, it was Dr. Leo Kanner who conceived the term autism in 1943, to label a variety of symptoms seen in some retarded children. It was the beginning of an approach to autism as a special kind of handicap, differentiated from mental retardation, schizophrenia or other psychological symptoms. Since then, there has been a steady growth in the educational knowledge about dedicated programmes for autism in developed countries, and to a lesser extent in other developing countries, while not a single comprehensive specialized programme exists in oil rich countries such as Kuwait. Despite such a programme's importance, there has been little effort and research in this area. This research is intended to help fill such a gap.

Studies show that autistic children have the retentive capacity and cognitive potential for improvement if they are provided with adequate special education (Schopler and Mesibov, 1994; Koegel and Koegel, 1995). Such

improvement will be enhanced if educational intervention is made early in the life of the child. In addition, due to the severity of the syndrome's symptoms as well as its complexity, a separate educational programme for children with autism is warranted. As such, it may be essential to establish a programme which will cater for the needs of autistic children in Kuwait as well as other oil rich countries that share similar cultural and social characteristics.

1.2 STATEMENT OF THE PROBLEM

In Kuwait, as in other oil rich countries, while significant strides have been made to provide more effective facilities for teaching children with special needs, and although the educational opportunities for handicapped children have increased in the last 5 years, appropriate educational programmes for the autistic population have not yet been developed.

The author of this study has rich personal experience of both living with and teaching an autistic child. During the difficult period as a parent as well as educator of an autistic child, the author reflected many times on the need to develop a unique programme for such children that addresses the specific needs of the child and his family within the context of his culture and environment.

As parent awareness about autism increased and public attitudes toward autism became more positive in oil rich countries, the pressure increased on the appropriate educational authorities to provide satisfactory educational services for autistic children. In the absence of appropriate national educational programmes, these authorities have tended to look toward the developed countries for guidance and solutions.

Since the existing programmes in developed countries function within a specific orientation and under certain assumptions, they will be difficult to imitate without considering local circumstances and conditions. As a consequence, there is a need to design an educational programme for autistic children which

takes into consideration national cultural factors as well as the availability of resources and services in Kuwait. To test the validity and applicability of the programme, an implementation process is needed. To enhance the effectiveness of the programme, this process needs to be evaluated, leading to appropriate modification of the programme. Hence, this research encompasses three basic components: designing, implementing and evaluating the suggested educational programme.

1.3 PURPOSE OF THE STUDY

This study focuses on identifying the educational and training needs of autistic children in Kuwait, designing a programme based on those needs, implementing it effectively and evaluating its outcomes. The identification of such needs will form the basis for this educational programme. Parents are a vital resource in identifying such needs.

Though the programme was implemented for practical reasons in Kuwait, its design was based on the identification of such needs in both Kuwait and Saudi Arabia. This gives the design of the programme more credibility and reliability as well as providing a basis for cross-country comparison.

Taking into consideration the above rationale, the purpose of this study is three-fold:

(i)   To design, implement and evaluate an educational programme for autistic children in Kuwait as a case study for other oil rich countries. There is a necessity for such a programme in these countries.

(ii)   To analyse the strengths as well as the weaknesses of the programme after implementation and to identify the major factors in its effectiveness with reference to Kuwait as well as other oil rich countries. In addition, the study will identify major cultural factors that need to be considered in the implementation of such a programme.

(iii)　　To point out the challenges that face the programme's implementation and outline ways and means to overcome them. Having an inventory of such challenges will assist other oil rich countries in implementing a similar programme.

The study will survey the existing facilities for special education, especially autistic children, the availability of special-education teachers, the institutional capacity and funding arrangement and the level of awareness of such programmes and the existence of a legislative mandate. Furthermore, the study will review the current trend in educating autistic children and identify major components of an educational programme that are relevant to the culture of oil rich countries.

On the basis of the previous findings, the study envisages, in the first phase, suggesting a suitable design for such an educational programme. In the second phase, such a programme will be implemented in Kuwait for one year as a case study. In the third phase, the outcomes of the programme as well as the efficacy of its implementation will be evaluated, utilizing various tools and approaches.

The methodology used in this study includes the collection of information and materials from primary sources and library research. In addition, many other research instruments have been used, for example: programme-based observations, detailed personal interviews and field surveys as well as visits to specialized centres and schools in Kuwait and the U.K.

1.4　LIMITATIONS OF THE STUDY

The study confines itself to the development of an educational programme for autistic children in the state of Kuwait as a case study for other oil rich countries. More research is needed to ascertain whether other countries with similar cultural values may benefit from the outcomes of such a programme.

A second limitation is the dependence of this study on the perceptions and opinions of respondents (through interviews and questionnaires). On the one hand, these tools carry a certain degree of bias while, on the other hand, they are valuable sources of information. The author has tried to minimize bias by following research and evaluation techniques which aim to ensure validity and reliability. In addition, many qualitative and quantitative analyses were conducted to support or reject the information obtained from the above sources.

A third limitation is the scarcity of appropriate literature in Kuwait and other oil rich countries concerning autistic children in particular and disabled children in general.

1.5 SIGNIFICANCE OF THE STUDY

The study is intended to demonstrate the viability and applicability of establishing an educational programme for autistic children in Kuwait and other oil rich countries. The implications for training and future development of these programmes will be discussed, together with suggestions for further enhancement of such programmes.

The study will provide empirical data for establishing a programme for educating autistic children that could be considered a model for evaluation and discussion. It will show that it is possible to design and implement a successful programme for educating autistic children in oil rich countries, such as Kuwait. The author knows of at least four attempts in Bahrain, Qatar, U.A.E. and Dammam in Saudi Arabia to establish programmes in oil rich countries that may benefit from the proposed model programme.

The study could be a useful contribution to better teaching of autistic children and, as a consequence, may relieve the frustration that is faced by educationalists, parents and, of course, the children in Kuwait. The findings of the study will be beneficial to determining the content of any programme for

autistic children not only in Kuwait, but also in other countries in the Arab world, since they share the same educational features and cultural values. The study has the advantage of being pioneering in its field in Kuwait, the Arabian Gulf and the middle-eastern countries. It will provide a basis for future research in the field of cross-country or cross-cultural studies with reference to autism.

1.6 ORGANIZATION OF THE STUDY

The study consists of two parts and nine chapters. Part one delivers the key concepts and outlines the gathering of data, both from the literature and the empirical research. It is divided into five chapters as follows:

1.   Chapter one states the problem to be examined and the purpose of the study, outlines the general research limitations and the significance of the study.

2.   Chapter two summarises the main features of Kuwait that had an impact on this research, including the historical development of the country and its economy, demographic composition, the evolution of the country's educational system and its characteristics, social and cultural values and structure, attitudes toward special education and levels of public awareness.

3.   Chapter three reviews the literature on special needs with particular emphasis on autism, as well as empirical research about autism in Kuwait. The different approaches available to the care and education of autistic children are reviewed. The role of the family in the process of child development is analysed.

4.   Chapter four reviews current facilities for the diagnosing and assessment of autism, legislative perspectives and levels of public awareness.

5.   Chapter five outlines the methodology, describes the sample of the study, the research instruments, the methods for data collection and the techniques for data analysis. On data analysis, it examines the data generated from the

research tools such as the questionnaire and presents their outcomes.

Part two, which contains four chapters, examines in some detail the design, implementation and evaluation of the programme as well as its outcomes as follows:

6.   Chapter six highlights the main features of the programme's design, including its objectives and the general principles. It outlines the screening, selection and admission processes. Recreational and vocational activities, the teacher's role and that of assistant teacher and support staff, teaching methods and techniques, record-keeping and reporting, parent and family roles will also be discussed. The chapter concludes with a discussion about religious as well as physical education, craft work and music.

7.   Chapter seven describes the ways and means of implementing the programme. It begins by highlighting seven critical areas of the education programme. The value of structured teaching as well as family support will be indicated. The significance of training and staff development, recreational, vocational and support services, and public awareness and information will be discussed. The chapter concludes with the outcomes and summary of the observations.

8.   Chapter eight highlights the main components of the programme's evaluation, evaluates the different components and presents the outcomes of each evaluation. This includes the programme's context, input, processes and outcomes. In addition, it accentuates the weaknesses and strengths as well as indicating the satisfaction of all concerned.

9.   Chapter nine presents a comprehensive summary of the challenges that faced the programme's implementation together with the recommendations for further improvement and future development.

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CHAPTER TWO: THE COUNTRY AND ITS EDUCATIONAL SYSTEM

In this chapter, we will describe the historical development of Kuwait and Saudi Arabia and the evolution of their educational systems by way of an introduction to our analysis of the main features of the environment surrounding the proposed educational programme for children with autism. The chapter starts by describing the chronological development of the countries. Later, the demographic profile as well as the main sources of social values will be thoroughly analysed, including social attitudes toward handicapped individuals. In addition, the education system in both countries will be outlined and their characteristics will be examined. Levels of public awareness about autism will be explored and their implications for the programme's effectiveness will be evaluated. The main findings will be highlighted as a prelude to the subsequent chapters. The importance of this chapter is to provide the reader with background knowledge about the environmental factors that may influence the development of the proposed educational programme in Kuwait and Saudi Arabia as well as the available facilities for children with autism. In certain areas, the analysis of Kuwait will serve as an illustration for Saudi Arabia given the cultural similarities between the two.

2.1 Chronological Development

Both Kuwait and Saudi Arabia have experienced similar historical development patterns. Tribes emigrated from their homeland, fearing droughts or avoiding conflict, to a new land where they settled. They established their small community and spread their authority gradually over other tribes around them. Due to increased interest in the area by colonizing powers, they entered into international politics and sought alliances with or protection from a superpower, mainly England. After the discovery of oil in both countries, huge developments occurred in all areas with the exception of the political system.

From the beginning of the twentieth century, both countries experienced political and economic complexities and challenges. Abu-Hakima was correct when he identified the main features for Kuwait in the 1930s and 1940s as economic and political hardship (1983:156). Similar challenges faced Saudi Arabia. Pearling was a main source of income which suffered a substantial decline due to the growth of the Japanese pearl-culture industry. Trade income also suffered, from continuous conflict among tribes and the economic depression of the thirties. Such hardship did not allow any advancement in the educational system, including special needs' education.

World War II, on the other hand, brought prosperity to the merchants in the region and, consequently, to the general population. Since many of the European ships were being used for military purposes, the merchants were requested to rent their fleets to transport the goods needed for the Allied armies in the area. Such prosperity intensified with the resumption of oil production in both countries at the end of the war. On 30 June 1946, the first shipment of oil was exported to England from Kuwait. The ruler was so eager for human resources development that he spent the first oil revenues advancing the education of women (Abu Hakima, 1983).

2.2 The Economy

Kuwait's economy is a one-resource economy with high real Gross Domestic Product (GDP) per capita that reached US$ 21,630 in 1993 (UNDP, 1996). The oil sector is the major contributor to the country's GDP with an average share of 53 percent. The growth of GDP averaged 9.61% during the period 1965-89 while the average per capita GDP has grown at an average of 7 percent. Like that of Kuwait, Saudi Arabia's economy depends on oil revenues with a modest real GDP per capita of US$ 12,600 in 1993 (UNDP, 1996).

The state expenditure system in both countries has a high degree of flexibility and long-term budgetary policies do not exist. This implies that with

strong political or interest group pressure, some resources could be channelled to special education activities.

One of the positive trends in both countries is the allocation of substantial financial resources to the education sector, which have far exceeded allocation to, for example, the health sector, as Table 2.1 shows. For the years 1985-90, the allocation to educational services in Kuwait was on an average of 12.9% of all state expenditure, compared with an average of 7.15% for health services.

<u>Table 2.1</u>

Expenditure on educational services as percentage
of total expenditure for the years 1985-1990 in Kuwait

Year	Amount in KD mln.	Education expenditure as % of total expenditure	Health expenditure as % of total expenditure
1985-86	370.2	11.9	6.7
1986-87	372.2	13.0	7.0
1987-88	294.4	12.4	8.6
1988-89	427.6	13.4	7.0
1989-90	451.3	13.6	6.8

Reference: Ministry of Planning, Annual Statistical Abstract, 1994, State of Kuwait

The allocation of such a large share of state resources to the education services indicates the government's commitment to human resources development. In addition, it indicates the readiness of the state to support any potential expansion which enhances the diversified development of human resources, such as special education if such needs were identified. Furthermore, the availability of a huge financial surplus as a result of oil revenues has enabled the state to direct more means to the education sector. As shown in Table 2.2, the average surplus as a percentage of the total revenue was 20.47% during the years 1957-90.

Table 2.2

Surplus as % of Total Revenues for the years 1957-90

Years	Surplus as % of total revenue
1957-1965	18.27
1965-1975	38.2
1975-1984	49.82
1984-1990	-19.26
All years (1957-90)	20.47

The availability of financial resources, coupled with the commitment to education, could be an encouraging sign for the sustainability of the proposed programme, if it is established.

In addition to providing adequate financial resources for education, the increased prosperity due to oil wealth has implications for the demographic composition of the country. Such implications will be discussed in the next section.

2.3 Demographic Composition

A country's demographic composition is a major factor in the planning of any educational programme, indicating the areas of focus, target groups, etc. Many rates and indices have been developed to reflect the change and the development in the different areas of demographic composition and human resources. In this section, emphasis is placed on analysing the key rates and indices which reflect changes in demography as key variables impacting on the design of the proposed educational programme for children with autism. These include population growth, age distribution, marriage age, vital social indicators and educational status.

Population Growth

In 1993, the population of Kuwait was 1.4 million and that of Saudi Arabia

17.5 million. The population growth rate in both countries averaged 5.8% and 4.4% respectively for the years 1960-1993 (Table 2.3). These rates may be considered high in comparison to other countries. For example, the annual population growth (1960-1992) reached 2.6% and 1.9% for Arab states and the world respectively.

Table 2.3

Percentage of population growth for the years 1960-93

	No. of population in the year 1993	Growth per year (1960-93)
Saudi Arabia	17,505,000	4.4%
Kuwait	1,433,000	5.8%

Reference: UNDP, 1996; Arab United Economic Report, 1994

Due to developmental activities, both countries have large expatriate populations. The population growth rate for expatriates exceeded that of natives. For example, in Kuwait the native population growth rate was 5.13% from 1957 to 1986 while it was 9.10% for non-natives (table 2.4). The implication of high expatriate population is that autistic children from this community should eventually be included in the educational programme, which at present is restricted to native children.

Table 2.4

Population Growth during 1957-1988 in Kuwait

Years	Yearly Growth Rate		
	Kuwaitis	Non-Kuwaitis	Total
1957-1965	8.70%	13.05%	10.80%
1965-1975	7.90%	7.78%	7.85%
1975-1985	3.74%	6.88%	5.58%
1985-1988	-7.75%	13.72%	4.1%
Average for all years	5.13%	9.10%	7.40%

Reference: State of Kuwait Annual Statistical Abstract, 1994

The high population growth rate is attributed to a large influx of immigrant workers, Bedouin assimilation, naturalization of non-natives and a high fertility rate. Such high growth has increased the demand for educational provision for the younger generation, including special education. As a consequence of high population growth, student enrolment growth reached a yearly average of 5.82% for the years 1959-94 (Table 2.5). Low student enrolment in the years 1984-89 and 1989-94 was due both to restriction on the immigration of expatriate families and the Gulf War.

<u>Table 2.5</u>

Average Student Enrollment Growth Rate in Public School in Kuwait

Years	Student average growth rate
1959-65	15.9%
1965-75	8.75%
1975-84	7.35%
1984-1989	1.5%
1989-94	-4.51%
1959-94	5.82%

Reference: Ministry of Planning, Annual Statistical Abstract, 1994

Furthermore, statistics show that the population growth rate for females is higher than that for males (Annual Statistical Abstract, 1994). Many factors are responsible for this trend, including the immigration of wives and relatives of immigrant labourers and an increase in the demand for non-native females in the workforce, particularly for specific jobs. The participation in the workforce of non-native females is more acceptable than that of natives.

As per the UNDP estimation, 10% of the population may be handicapped (UNDP, 1995). This means that an estimated 143,300 and 1,750,500 handicapped individuals are living in Kuwait & Saudi Arabia respectively (Table

2.6). In both countries, however, insufficient attention is given to these groups for reasons that will be discussed later in the chapter. In Kuwait, it has often been stated by officials of the Ministry of Education that autism is an extremely rare condition which does not warrant the allocation of social resources.

In order to evaluate the magnitude of the problem under investigation, we need information on the size of the autistic population. Unfortunately, neither country has adequate statistical information about the handicapped population. We have, therefore, to make some sort of estimate of such population. Studies on autism indicate that its occurrence is in the range of 3-4 cases per 10,000 (Wing, 1993). Based on this, Table 2.6 shows that the estimated population of children with autism, 15 years and under, would be about 258 children in Kuwait and 3501 children in Saudi Arabia. Although these figures can only be very tentative because of the effects of cultural factors on the identification of autism, the occurrence of such a number of children with autism in the two countries justifies the efforts to establish a comprehensive educational programme for autistic children.

Table 2.6

An Estimation of Autistic Population and Children for the year 1993

Country	Population ('000)	Estimated Handicapped (10% of population '000) (UNDP)	Autistic Individuals Estimate at 4 out of 10,000	% of population are 15 years and below	Estimated number of Autistic children (approx.)
Kuwait	1,433	143.3	573	45	258
Saudi Arabia	17,505	1750.5	7002	50	3508

Note: There are no accurate figures, however they are carefully estimated.

Age Distribution

The age distribution of the two societies indicates a young society. The percentage of the population aged 15 years and under increased from 30-35%

in 1965 to a record level of 45-50% in 1975 as a result of high fertility rates and the immigration of expatriate workers' families. In addition, it reflects an increasing trend towards settlement among the immigrant workers and improvement in the availability of educational opportunities for natives. This percentage later declined due to low fertility rates and new tighter immigration regulations which make it difficult for a worker to bring his family into the country. Table 2.7 shows that the percentage of the population below 15 years in Kuwait (as a representative case), indicating the young nature of the society. This fact will increase the demand for education services, including that of special education.

Table 2.7

Percentage of population below 15 years in Kuwait

Years	Natives	Non-Natives	Total
1965	49.1	28.2	38
1970	50.1	37.0	43.2
1975	49.4	39.7	44.3
1980	49.3	33.8	40.3
1985	48.6	29.0	36.8
1988	41.6	33.63	35.75

Source: Ministry of Planning "Annual Statistical Abstract", Kuwait Government Press, Edition XXIV, 1987 and Labour Force Survey, 1990.
Note: The year 1988 was the last year the census was conducted

Marriage Age

We need to understand the marriage profile because it has an indirect impact on the ability of the parents to support their handicapped children. For example, it could be argued that a child raised with more mature parents has a better chance of developing satisfactorily. As indicated in Table 2.8, Kuwaiti society is characterised by marriage at a young age. The table shows that 76.45% of male marriage occurs at the age of 20-24 years while 91.47% female marriage occurs at the age of 15-29 years. Marriage at such a young age may

not produce the level of maturity and commitment needed for raising a child with autism.

Table 2.8

Marriage by Age Group in 1992

Age of Husband	Age of Wife					
	Less than 15 years	15-19 years	20-24 years	25-29 years	30 years and more	Total
Less than 20 yrs	20	422	124	15	5	586
20-24 yrs	36	2028	1847	222	32	4165
25-29 yrs	11	624	1120	521	90	2366
30-34 yrs	2	69	239	226	128	660
35 yrs and more	4	50	109	197	173	859
Total	73	3193	3439	1181	217	8542

Reference: Ministry of Planning, Annual Statistical Abstract, 1994, State of Kuwait

Social Indicators

As a result of directing substantial resources to the social sector, both Kuwait and Saudi Arabia enjoy high marks for social indicators. Table 2.9 indicates that 18.97% and 19.87% of the budget resources in Kuwait and Saudi Arabia respectively were allocated to the social sector in 1993.

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Table 2.9

Social Indicators for Kuwait and Saudi Arabia

Social Indicators	Kuwait		Saudi Arabia	
	1960	1993	1960	1993
Expenditure in social sector as % of total	-	18.97%	-	19.87%
Life expectancy	59.6	75	44.4	69.9
Infant mortality per 1000 live birth	103	36	170	28
Adult literacy	54 (1970)	77.4	9 (1970)	61
School enrollment (up to three levels)	-	53	-	55
Real GDP per capita in US$	-	21,630	-	12,600
Fertility rate	-	3.1 (1992)	-	6.4 (1992)

Reference: The Yearly Report of the United Development Programme, 1996;
            Arab United Economic Report, 1994

The result of such huge expenditure on the social sector has been a substantial improvement in vital human development indices, such as life expectancy, infant mortality, adult literacy and school enrolment, as indicated in Table 2.9.

Educational Status

Regarding the educational status of the population in Kuwait (10 years and over), the most recent census in 1988 indicated that 15.2% of the population was illiterate. The rate for females was 21.98%, compared to 8.36% for males. Any parent-awareness programme should take these statistics into consideration and provide information through appropriate media, such as audio-visual as well as written materials. On the other hand, the high literacy

rate of 84.8% is a favourable indicator for the impact of an effective parent-awareness programme on the child's development (Table 2.10).

Table 2.10

Educational Status of Population and their percentage distribution by sex (10 years and over) in Kuwait in 1988

Educational status	Female	% of total	Male	% of total	Total	% of grand total
Illiterate	42,525	21.98	16,002	8.36	58,527	15.2
High School	140,196	72.46	161,049	84.11	301,245	78.26
University and Graduate Degree	10,752	5.56	14,427	7.53	25,179	6.54
Total	193,473	-	191,478	-	384,951	-

Reference: Ministry of Planning, Annual Statistical Abstract, 1994, State of Kuwait

Illiteracy is higher among females than among males in both countries. As indicated in Table 2.11, however, adult female literacy is far better in Kuwait than in Saudi Arabia. This high illiteracy rate in Saudi Arabia implies that the instruments used in the parent-awareness programme should be modified to take care of the needs of this group.

Table 2.11

Adult Female Literacy in the year 1992

Country	Rate	Female as % of Male
Kuwait	24	31
Saudi Arabia	5	27
Industrial countries	29	53

Reference: The Yearly Report of the United Nations Development Program, 1995

2.4 <u>Social Values</u>

Social values have a strong impact on the education system in both countries. Many social attitudes and behaviour have influenced and shaped the prevailing curriculum and educational programmes. Change in social values is slow compared to economic and political changes, so it is not surprising that traditional values still predominate in both societies. In the following paragraphs, an attempt is made to explain the main features of the prevailing social values. This attempt is neither a comprehensive study of the two countries' social values nor a detailed analysis of their social complexity and interdependence. This is beyond the scope of the research and the ability of its author. What the researcher is trying to do here is to explain some social values which constitute the social environment of the education system and also to highlight their relationships and their impact on the educational programmes, especially for children with autism. The main social values may include the following:

A. <u>The Religion (Islam)</u>

Since their establishment, these countries have remained Muslim in their faith and religion. Islam is, therefore, the source of the political system, the judicial system and the moral code of the society. The Quran, together with Islamic traditions, provide the foundation of the social structure, although interpretations of Islamic teaching vary in both countries. In one study, it was found that for a majority of Kuwaitis, religion is their main source of values (Al-Salim, 1982). In Saudi Arabia, Islam is the central social principle and the basis for political legitimacy. This is attributed to the fact that Saudi Arabia is the protector and custodian of the holy places for Muslims. Though both countries follow the Islamic faith, the education system and curriculum in Saudi Arabia emphasise the role of Islamic teaching more than in Kuwait. As a result, it is expected that parents of autistic children will have great enthusiasm to teach their children Islamic values, and such enthusiasm will be higher in Saudi Arabia than in Kuwait. Since both countries are strong believers of Islam, it is expected that the programme should contain some basic religious teaching and

prayers. The need for such basic religious teaching will be analysed further in Chapter Five by the inclusion of a relevant statement that will focus on this issue in the proposed questionnaire (Chapter Five, Question E7).

For parents of autistic children, since belief is a positive force in a human being's life, such belief could be utilized to encourage parents to participate in the welfare of the child and enhance their commitment toward him or her. It could also be used as a way of reducing stress among families of autistic children, since prayer is a useful means in this regard.

B. Arab Affinity

Kuwait and Saudi Arabia are located in the Arabian Peninsula with a majority Arab population. With mass nationalistic activities and as a result of the interaction with the Arab mass media, the citizens of the two countries have decided to affiliate themselves with the Arab nation and its cause. As a consequence of such affinity, parents of autistic children may prefer that the proposed educational programme be conducted in Arabic. Nevertheless, such expectations will be analysed further in Chapter 5 since one of the questionnaire items concerns the preference of parents for the language of the programme (chapter five, question E2).

C. The Family or the Tribe

The basic social unit in the Arab world is the family, not the individual. Loyalties, obligations and the status of each individual are tied to the family unit. Each individual is responsible for the welfare of his family and in return the family provides him with a larger base of contacts and support. His acts and behaviour are considered those of the family. The Arab individual subordinates himself to his tribe or family, with which he is identified. This subordination and affiliation causes individuals to be motivated and shaped by their family's influence and values. The family in Kuwait and Saudi Arabia is the centre of the social relationships, obligations, loyalties and status of its members. Tribal and family ties are still important in these countries, even though their role is

declining due to a change in the concept of the family. Consequently, the designer of an educational programme may presume that family support and commitment for the autistic child will be greater in these two societies, compared with industrial countries. The strong role of the family implies, furthermore, the total dependence of the child on his family. Due to the strong family role, residential arrangements may not be appreciated by the families in both countries. This is one area where cultural differences do matter. In contrast to the culture of these two countries, an autistic person's social value in the West is enhanced if the autistic child appears to be able to manage his own life (Baron et al, 1991).

D. Traditions

Most social traditions can be understood only within the national context of religion, ethnic origin and environment. Many traditions in both countries reflect the climate, economic life and prevailing social relationships. For example, cooperation and unity are essential traditional values of both societies and reflect the challenges and threats from neighbours, the scarcity of natural resources and the severe climate. This implies that the programme could positively benefit from such traditions by encouraging parents' cooperation both with school and amongst themselves. The programme may, furthermore, motivate the parents and their extended family to act as a united front in demanding the services needed by the child.

E. Social Stratification

There is no social distinction in Islamic societies between the social classes, as is the case in other societies. There were, however, three social clusters before the discovery of oil. The first was made up of the Royal family, and small groups of wealthy families and tribal chiefs who ranked next in the social scale. These wealthy families were consulted regularly by the Ruler and had considerable political influence. The ownership of the means of production or tribe leadership was the basis for the stratification of this cluster, which was distinguished further by Kinship relationships and intermarriage. The second

cluster comprised ship captains and office clerks (Al-Naqeeb, 1978). The third cluster was made up of the large working class, which included fishermen, pearl-divers, sailors, labourers and shipbuilders. This cluster has diminished in size due to the extensive welfare services provided by the government.

With the discovery of oil, a large middle class emerged (the fourth cluster), made up of high-level bureaucrats and small businessmen, who have the best opportunity for upward mobility to the most influential cluster. Upward mobility and influence in political decision-making by the middle class have been observed in Saudi Arabia (Rugh, 1973) as well as in Kuwait (Salih, 1991). In addition, a fifth cluster of wage earners and skilled workers has emerged due to the huge bureaucratization (Al-Naqeeb, 1978).

Though the programme will have a non-discriminatory policy concerning admission, in its efforts to obtain the required support and services, it will seek to interest the cluster that has the greatest influence. In addition, this cluster will have the financial to support the programme and pay their children's fees.

The social values which have evolved historically have a profound direct or indirect impact on the education system. These include: informal structure, loyalty to leadership, centralized authority, lack of job specification or description, personalized recruitment, autocratic style of leadership and lack of planning (Al-Omar, 1997). The impact of such values on the perception and attitude of educationalists will be analysed further in the next two paragraphs, which will also consider social attitudes toward handicapped people in general and the autistic in particular.

2.5 The Education System and its characteristics

To design any programme for autistic children, it is important to examine the development of the general education system as well as identifying its current characteristics. Knowing the strengths of the system as well as identifying its weaknesses will enable the designer to avoid shortcomings and

allow him to inject the desired vigour. In this section, we will analyse the education systems of both Saudi Arabia and Kuwait; the major characteristics which have a bearing on the proposed programme will be identified.

In the Kingdom of Saudi Arabia, public education began in 1925 with the establishment of the Education Bureau which was upgraded to the status of a ministry in 1953. In 1960 the Bureau of Education for Girls was created to supervise the growing demand for girls' education. In 1975 the Ministry of Higher Education was established and in 1980 the General Authority for Technical and Vocational Education was founded (Al-Salam, 1990). Currently there are more than 10,000 schools in Saudi Arabia, 84 teacher-training institutes, 57 scientific institutes and 33 institutes for the handicapped. In 1992, there were more than 3,113,571 students in Saudi Arabia, with a yearly growth rate of more than 8% for the last twenty years. This rate levelled to 3% in 1990-92 due to the non-enrolment of expatriates (Table 2.12).

<u>Table 2.12</u>

Student enrolment, excluding university level, and its growth in Saudi Arabia
1990-1992

Year	Student enrolment	% growth
1990	2,890,114	
1991	2,975,953	2.97
1992	3,113,571	4.62

Reference: Ministry of Finance and National Economy, Saudi Arabia, Statistical Year Book, 1992

An important aspect of education in Saudi Arabia is the segregation of females and males at all levels. There is a separate educational body responsible for the education of girls, which oversees the curriculum, teachers and administration in the same way as the Ministry of Education does for male education. In 1970, the Kingdom's education policy was issued. It included 236 articles about general education principles. The policy highlights educational objectives in relation to individuals and to society (HCEP Saudi

Arabia, 1974). Article 188 of that policy states that the country will educate mentally or physically retarded children and will provide appropriate educational facilities and curriculum and vocational training within its capability. Article 232 of that policy emphasises that the aim of education in Saudi Arabia is to establish Islamic values within the individual as well as society and that all educational philosophy must be in line with the principles of Islam and its requirements. This is a crucial factor when considering any curriculum in Saudi Arabia. When designed, the proposed programme has to reflect Islamic values or, at least, not conflict with them. In Saudi Arabia, education is free at all levels. It is not compulsory for children to attend school, but education is available for all citizens and expatriates.

An implication of Islamic values in the provision of educational programmes in Saudi Arabia is that it will be difficult to coeducate boys and girls beyond 11 years of age. In addition, it will be unacceptable to give unrestricted access to the educational facilities of the girls. Similar conditions apply to Kuwait but less stringently. Nevertheless, in both countries sex-segregated programmes should be envisaged.

Public education started earlier in Kuwait than in Saudi Arabia. Its foundation can be traced to the establishment of the first private school by some wealthy businessmen in 1912. Their motives were mainly eagerness to acquire knowledge and their recognition of the need to provide their children with the basic skills essential for their business purposes. In light of the steady growth in enrolments at the only school and due to a shortage in funding, the government assumed control in 1925. With the expansion in the number of schools, in 1939 the government established a bureau to supervise public education, guided by a high-level Education Council. After independence in 1961, the bureau was upgraded to a ministry in 1962. The promulgation of the education law No.15/65 followed in 1965 making it compulsory for every individual in Kuwait to be enrolled in school up to the age of fourteen.

The revised public education law, issued in 1987, has spelt out the objectives of education in Kuwait. One objective relevant to the special education programme is that which indicates that the state should provide the opportunity for all Kuwaitis to have the best education available. Such an objective could be the basis for establishing a variety of special-education programmes catering for children with special needs. The establishment of such a programme will fulfil such objectives since it will provide the best education for autistic children.

Student enrolment in Kuwait has increased at a yearly average growth rate of 5.4% over the last 20 years (Annual Statistic Abstract, 1994:55), though it levelled off to an average of 3.77% for the years 1991-1994 (Table 2.12), due to the decline in population after the Iraqi invasion of the country and the adoption of a policy of non-enrolment of expatriates. In the years 1994-95, student enrolment in Kuwait reached 274,665, throughout the 576 schools (Table 2.13).

Table 2.13

Student enrolment (public school) and its growth
in Kuwait for the years 1991-1994

Year	Student enrolment	% growth	Schools
1991-92	245,800	-	513
1992-93	263,402	7.16	535
1993-94	265,210	1.42	554
1994-95	274,665	4.46	576

Reference: Ministry of Planning, Kuwait - Annual Statistical Abstract, 1994, Kuwait, and
Ministry of Planning, Statistical View, 1996, Kuwait

Some Characteristics of the Education system in Kuwait and Saudi Arabia

Any education system is a reflection of a society's values and characteristics. Both in Kuwait and Saudi Arabia, the education systems reflect the social values, the environment, Islamic values and Arab culture. Due to the

rapid growth of both countries and the lack of institutional capacity, many components of the education system in both nations were borrowed from countries which have advanced educational systems, like Egypt. This was reinforced by the fact that the majority of teachers came from Egypt due to its high educational standards at that time.

Though there are many characteristics of the education system of both countries that will attract the attention of general educationalists, we have emphasised here only those which have relevance to special education. Some of these are:

1. The lack of strong participation by parents and organizations concerned in the education of disabled individuals. The education system neither emphasises the participation of parents nor encourages their involvement. As indicated previously, the family is a strong social unit in Kuwait and parents are totally committed to and expected to support their handicapped children. However, their role as a partner in education is neglected. In our proposed programme, we should address such a weakness and solicit more participation from all concerned as well as increase their involvement with the programme's activities in order to develop the child to his maximum potential. This is in line with the UNESCO Salamanca Statement (1994) to: encourage and facilitate the participation of parents, communities and organizations of persons with disabilities in the planning and decision-making process concerning provision for special educational-needs education.

2. The existence of a weak interaction and relationship between the school and the parents. As a result of such strained relationships, parents do not receive messages and comments from the teacher concerning the behaviour, attitude and performance of the child. Teachers rarely meet the parents on issues relating to their child's education needs while school provides meagre support and guidance to parents, especially those whose children have special needs. Parents are expected to be concerned only about the academic

performance of the child, rather than his total educational needs or objectives. A positive trend in this regard is the change in the educational system in Kuwait from departmentalizing education to a high-school course system. Such a change has put a greater emphasis on parental support for their children and increased involvement in their educational development.

3. The absence of social support for special education. Due to the lack of social awareness for the needs of handicapped individuals, there is no strong commitment to supporting and enhancing special education. In both countries, special-education schools are seen as a relatively unimportant aspect of educational provision. This is clear from the modest resources devoted to them. In addition, teachers who are involved in the education process for handicapped children have limited experience of special-needs techniques and training.

4. The existence of a large, centralised education administrative machine. The education system in both countries is heavily centralised, with little leeway or flexibility given to the head of the school. In order not to be lost in the over-demand of general education, the UNESCO (1994) Salamanca Statement recommends the establishment of decentralized and participatory mechanisms for planning, monitoring and evaluating the educational provision for children and adults with special educational needs. In addition, in both countries, the concept of school or education boards whose role is to direct the school educational policies, does not exist. All directives and instructions emanate from a centralised bureaucratic machine within the MOE. As a consequence, many specific educational needs of the community, such as special needs, are not taken into consideration in planning and implementing school activities. For example, the school head has limited authority in introducing mainstreaming into the school system or allowing any kind of special education classes within his normal school. Due to such centralisation, the head is limited in his ability to deal with the different needs of special-education children without prior authorization from the MOE.

5. Inadequate teacher participation in the educational policies. Teachers in both countries have limited participation in decision-making at different stages and levels of the education process. In her study, Al-Hadhoud (1996) concluded that teacher participation in decision-making processes was less than what was expected. To overcome this shortcoming, the programme will aim at encouraging teachers to participate more in the decision-making process. As indicated by Hay and Misket (1982:28), such participation will increase teachers' commitment, enhance their productivity and decrease their resistance. Furthermore, teachers' satisfaction will increase if they are involved in decision making (Mohran et al, 1982). Nevertheless, within the context of the programme, teacher participation will be implemented gradually and mainly in areas such as teaching directives, curriculum review, and supervision and management of extra-curricular activities.

6. The lack of adequate specialization as well as weak institutional capacity in educating handicapped children, including those with autism. A contributing factor to such a weakness is that no specialized courses for special education are conducted in the College of Education at the University. In addition, scholarships for special education are given at the level of M.Sc. and Ph.D. only. Consequently, those who graduate with such a high educational profile do not teach in special-education schools. Though both countries have established their own special-education departments, meagre resources are allocated to them for the development of staff skills and expertise. The departments lack the necessary supporting services, suffer from inadequate knowledge about the disability and lack the needed support, administrative or otherwise. Furthermore, no motivation exists for teachers to acquire expertise or obtain certification. Unlike the United States of America (Lewis, 1995), there is no special certification or specific training as a pre-requisite for appointment as special-education teachers.

7. The stress on a friendly, approachable head as one of the products of culture. In addition, teachers prefer verbal as opposed to written

communication, reflecting the family/tribal nature of the society. This necessitates that the head or director should have good informal personal relationships with the teachers and other staff. Furthermore, social values dictate that the director is willing to understand and help individuals with personal problems, as well as work tasks. This may put more stress on the director in both countries.

8. The existence of a weak and rigid curriculum for special education. The curriculum for special education in both countries is simple and does not provide individualized educational plans to meet the needs of each child. In addition, it has not been subject to evaluation for a long time and has not incorporated any new techniques or well-established approaches in special education. The lack of a special curriculum for autistic children within the MOE complex could be a challenge to the programme. Nevertheless, it could be seen as an opportunity; if it proved to be effective, it could be adopted by the MOE in its institutions.

These characteristics pose some challenges to the proposed programme which necessitate careful analysis and understanding. As a result, the programme should have wide interaction with parents, provide continuous feedback to them about their child's development, maintain the needed autonomy of the programme and enhance specialization in autism.

Due to the importance of understanding and evaluating public attitudes towards handicapped individuals which are vital for the effectiveness of any educational programme, we will now elaborate on the attitudes of society towards handicap in general and autism and related syndromes in particular. The factors that led to such attitudes will be discussed in subsequent sections, mainly that which examines the level of social awareness. These attitudes may include the following:

1. The positive receptivity and great social sympathy for the physically handicapped. This is clear from the generous support provided by the

government to individuals with physical handicaps as well as the wide mass-media coverage of their activities. Such positive attitudes have spread due to the increased interest of the country's leadership and aristocrats in the efforts to care for individuals with physical handicap.

2. The negative attitude towards non-physical handicap such as autism or communication disorders and other similar handicaps. Due to the lack of awareness, severe mental or developmental handicaps are viewed by the society as a kind of insanity. This leads to doubts about their treatment and reduces sympathy towards them. The prevailing practice of the society of placing individuals (regarded as insane) in institutions, rather than having them live within their own family, has increased such negative attitudes, since the public feels that the place of such mentally handicapped is in the institutions, not within the family and community. Many parents of children with non-physical handicaps try to hide their children from public view. Such behaviour has denied children many opportunities for development and progression.

One major repercussion of such negative attitudes for our proposed programme is the necessity to have a comprehensive social-awareness programme as well as a mass public campaign about autism, in order to increase the society's receptivity as well as enhance public awareness.

2.6 Society, teacher and special education

As concluded in the previous section, attitudes toward children with autism will have significant impact on the proposed programme. In addition to the society's attitudes, another major area of focus in our discussion within this chapter will be the attitude of educationalists, policy makers and parents toward special education in general and the education of the autistic in particular. In order to identify such attitudes, we will examine the prevailing attitudes within such groups, by means of personal observation and detailed interviews. The discussion will focus on those attitudes that have some bearing on the design and the implementation of the programme.

One area with implications for the programme is the teachers' and

support staff's attitude towards educating autistic children. Since in either country, specialized programmes for children with autism do not exist, special-needs programmes will serve as an illustration. In both countries, teachers working with special-needs children feel that they have a low-status job, since they are not educating mainstream children (Al-Fayez, 1996). The lack of emphasis and attention given to those children by the public and the educational authorities increases the strength of such feeling. In addition, most teachers came to this area of education for reasons which are not wholly to do with wishing to teach these children. Most are teachers who found such an occupation the only one available to them, while others had lost their way professionally. It is seen as the option only of those who could not make it in mainstream schools. Consequently, many of them had no understanding of the task assigned and lacked the motives required for such job. Compared to the United States, where special-educational certification is a prerequisite for appointment as a special-education teacher (Tilstone and Upton, 1993), in neither oil rich country does such a requirement exist. Any proposed programme should address such issues, and include efforts to improve the attitudes of the teachers towards their profession and the children. In addition, it should be emphasised that special-education teachers could be better off, because they will accumulate valuable experience more so than any mainstream teacher. This could be achieved by emphasising that special-education teachers will have the chance for more familiarization visits as well as comprehensive training which the proposed programme will implement. This will be a great advantage to the special-education teachers since the career progression of any teacher in both countries is heavily linked to the number of training courses he or she attends.

A second area worth consideration is the role of assistant teachers in special education. Though such a role is essential in educating autistic children, due to cultural considerations it will not be considered in the programme at present. This is due to the fact that teachers in both countries are over-dependent on their assistants in the conduct of their daily

function (Al-Wabily, 1996). In order to avoid the situation where the teacher relinquishes all her duties to the assistant or support staff, as is currently the norm, the function of assistants will not be considered in the programme for the time being. Instead, at the outset of the programme, one of the two teachers in the class is expected to undertake the role of assistant interchangeably with the other teacher. This arrangement could resemble a pairing-teachers approach where one of the two teachers is alternately assigned the role of an observer and the other the role of teacher to encourage interactive learning (Hodgson, 1994). Such arrangements within the programme are expected to enhance the positive attitude of the teacher toward the child. In addition, it will involve the teacher in the whole interaction cycle with the child while he is at school, including in activities such as self-care, that were previously delegated to the assistants. However, if the attitudes of the teachers change over time, the programme may include the development and training of assistant teachers.

A third attitude which prevails in both countries is the over-dependence of parents on the government for support in all aspects of their children's educational needs (Joyce, 1996). The general norm is that parents are not involved in the education process of their child nor expected to contribute toward the provision of the needed services. So there is a need to reorient the attitudes of parents through parents' support groups, re-orientation workshops and training programmes. This will lead to better involvement by the parents in the process of educating their children and ensure their continuous support. This will also enable them to enhance their knowledge of and experience in dealing with their child.

A fourth important consideration in assessing the different programmes implemented currently in the West is to understand the assumptions that were behind the design of such programmes and their relevance to the society in which they will be implemented. For example, the TEACCH programme emphasises and develops the characteristics of independence within the child. This may be assumed to be related to the fact that most families in the USA

where the programme originated cannot utilize the services of domestic help, which is not the case in either Kuwait or Saudi Arabia. Most families have domestic helpers for their children and in most cases the child will not be expected to be independent of his family.

A fifth cultural factor worth consideration is the role of music in educating autistic children. Many families, due to religious teachings, may resist music therapy as an educational tool. However, based on my experience as a teacher and as revealed in the literature (Schalkwijk, 1994), music is a highly effective means of educating the child and should be an essential part of any curriculum to educate autistic children. Music helps focus the child's attention and educates him rhythmically as well as encouraging bodily movement. As a consequence, it is expected that music will assist autistic children articulate their needs and lead to better interaction with teachers. In order to address the expected parental resistance, the questionnaire that will be addressed to the child's parents to solicit their views about their child's needs will include an item that will evaluate the need for music therapy from the parents' perspective (Chapter Five, Question E5).

A sixth consideration is that the programme should not be as highly structured and loaded with subjects as is the case with programmes in other developed countries. The programme will be in its initial stage and it is necessary to avoid overloading all concerned, especially the children, the parents and the teachers. At this early stage, the programme will lack adequate support services as well as the institutional capacity necessary for a more structured and intensive programme.

The proposed programme, in order to be effective, should reflect the environment in which it will be functioning. Equally true is the fact that any programme which is effective in a certain environment will not necessarily be effective in a different environment which will have different characteristics. This is why the current section examines the relevant environmental considerations

for the design of any programme for autistic children in the countries in question.

2.7 Level of Public Awareness

As emphasised earlier, the level of public awareness of mental or developmental handicap is relatively low in both countries. The lack of such public awareness has a negative impact on the development of adequate education programmes for non-physically handicapped children. Ashkanani (1995) noted that one of the main challenges that faces the understanding of autism is the low level of awareness within the Kuwaiti society. As a remedy, he suggested that there is a need for further dissemination of information in this regard. The designer of the programme should take this need into consideration when designing it, and resources should be allocated for public information provision. The improvement of public awareness could be achieved through dissemination of information, public meetings and seminars for parents and professionals. Detailed discussion on how to improve public awareness will be presented in Chapter seven.

In order to be able to disseminate information effectively, the designer of any programme should understand the most widely used mass-media within the society. Table 2.14 shows access to various mass-media in the year 1992 for both Kuwait and Saudi Arabia. It indicates that though both countries have fewer TV viewers than do the industrial countries, both countries rate relatively high in the possession of television per hundred people. Daily newspaper circulation is much less in Saudi Arabia than in Kuwait. This indicates that the programme should focus mainly on disseminating information through television and video activities, since access to TV is high in both countries. While utilizing newspapers for dissemination of information could be effective in Kuwait, since their circulation is high (24 per 100 people), such an approach would not be as effective in Saudi Arabia, where newspaper circulation is low (5 per 100 people) (see Table 2.14).

Table 2.14

Access to mass-media in the year 1992

Country	Daily Newspaper (circulation per 100 people)	Television (per 100 people)	Radio (per 100 people)
Kuwait	24	31	37
Saudi Arabia	5	27	30
Industrial countries	29	53	105

Source: Yearly Report of United Nations Development Programme (UNDP), 1995

Increased social awareness should reduce the stigma surrounding autism and increase social support for autistic children. Social support can be presented in the form of advice or information, acceptance from others and society's assistance with finance and services. Janoff-Balmen (1992) indicates that having a social support system leads to better psychological and mental health for both the child and his family.

At the professional level, a modest commitment towards development of education for children with autism is noticed in both countries. In the institutions or educational centres, inadequate attention has been given to autism. Up to now, few studies into autism in either country have been conducted by the university or other centres. This unfortunate situation can be attributed to many factors. In addition to the lack of academic commitment toward this field and the limited capability of researchers, no financial resources have been directed toward this vital area.

Increased awareness of the unique educational needs of autistic children necessitates prompt action by parents and government bodies as well as non-government organizations. Working together, these groups can help assure better public awareness and a more promising future for children with autism.

2.8 SUMMARY

The tribal nature and centralized authority that characterises Kuwait and Saudi Arabia has its impact on the development of adequate services for children with autism. On the one hand it implies that the agent for change is the centralised authorities, not relevant interest groups or the democratic process. On the other hand, it gives leverage to families of autistic children to use their extended family connections to pressurize the appropriate authorities for the necessary services for their children.

An analysis of the national demographic profile of both countries indicates the young nature of both society, the early age of marriage and the low literacy rate. A high illiteracy rate for females, compared to males, implies that the awareness programme should modify its approach to such groups; such modification will need to be greater in Saudi Arabia than Kuwait, due to a higher illiteracy rate, especially among females. A younger society and high population growth imply a high demand for educational services, including those for children with autism.

The expansion of the education system has been a significant achievement of each country's development. However, such impressive developments did not include the development of programmes for special needs children such as those with autism. The review of the major social values such as the strong Islamic faith, Arab affinity, the strong role of family and traditions reveals factors which must be taken into account while designing any educational programme. Since religious faith is strong in both countries, elements of religious education should be included. Furthermore, the strong Arab affinity necessitates that the language of the programme would be Arabic. The fundamental role of the family within the society could be seen as a positive force which could be mobilised to support the programme in many areas.

The review of the education system and its characteristics reveals a few features that have substantial repercussions for the design of any programme

for children with autism. Major characteristics are the relative lack of involvement of parents in the education process, weak interaction between parents and school, the absence of social support for special education, the existence of a large centralized bureaucracy and the lack of adequate specialization, as well as weak institutional capacity for special education. Such characteristics indicate the weaknesses of the education system for the provision of special needs education as well as reflecting the challenges that may confront the proposed programme. The review of public attitudes toward autism indicates a lack of receptivity and sympathy. As a consequence, teachers and other staff may suffer from low status and lack motivation.

An effective programme has to take into consideration the implications of both the weaknesses and strengths of the current educational system. The programme should reconsider the role of assistant teachers, encourage parents to contribute to the education process of their child, decrease the over-dependency on the government's support and consider the teaching of religion, music and the Arabic language.

Low social awareness about autism indicates the need for substantial efforts to solicit support for these children's special needs.

The review of the educational system reveals similarities in the educational systems and their characteristics in the two countries. This supports the idea that the implementation of the programme in one country, such as Kuwait, could be a case study for another country, such as Saudi Arabia.

Now we have an understanding of both countries and its educational system, it would be appropriate to review the literature on autism, to provide an adequate theoretical background about the conditions as well as review the current educational approaches.

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CHAPTER THREE: REVIEW OF LITERATURE

In the previous chapter, the importance of developing an educational programme for autistic children was outlined. Nevertheless, the design and development of such a programme require a systematic review of the extensive literature available in this field. Such theoretical elaboration will be the subject of this chapter, which starts with a basic definition of the major terms used in this study, with special emphasis on the biological and cognitive nature of autism. Trends in the study of autism will be discussed in detail and categories proposed. A review of major current programmes for children with autism is offered, and their applicability to Saudi Arabia and Kuwait evaluated. In view of the impact of autism on the family and the potential role of the family in child development, the chapter also analyses such impact and elaborates its role. Finally, in this chapter, data and empirical research on autism in Kuwait will be reviewed. The summary will indicate the major areas that should be taken into consideration while designing and implementing our proposed programme.

3.1   Basic Definition and Prevalence of Autism

Autism is a condition that affects some children from birth or infancy, leaving them unable to form normal social relationships or to develop normal communication. As a result, the child may become isolated and absorbed in a world of repetitive, obsessional activities and interests (Baron-Cohen and Bolton, 1993). Such puzzling behaviour has been indicated and described in different societies (India, Russia) and through history (Frith, 1989b; Gillberg and Coleman, 1992).

Children with autism may behave in strange ways. They may jump up and down excitedly at the sight of the water running from the tap, yet ignore attempts by adults to turn activities into a 'social' game in which others can share. They may look past you, or only very briefly at you, and make you feel as if you are an unimportant part of their world. They may call you when they

need something, but otherwise virtually ignore you, spending hours lining up objects in the living room, or flapping their hands and fingers excitedly as they repeatedly flick through picture books or magazines.

The term 'autistic' was first used in 1943 by Leo Kanner, an American psychiatrist and the first person to describe autistic children as a distinct group. Since then, the term has been subject to many interpretations. In England, the prevalence of autism was not known until 1964 when a survey was conducted in the county of Middlesex at the suggestion of the Medical Officer of Health (Wing, 1986). Using two of Kanner's criteria (the lack of responsiveness to people and insistence on the preservation of sameness), the survey showed similar conclusions to other findings in Denmark and the United States. In the USA, autism was originally encompassed within the definition of Serious Emotional Disturbance, though later Congress isolated it as a distinct category (Peterson, 1995).

The term autism is a rather ambiguous one and sometimes confused with other forms of mental illness, mental retardation or schizophrenia. Furthermore, the viewing of autism as a spectrum of many disorders has led to the increase in the number of disorders so classified. Gillberg and Peters (1995) suggest that the spectrum should include the following: classic autism (Kanner's syndrome), Asperger's syndrome, childhood disintegrative disorder, other autistic children and autistic traits. In order to define autism, we need to ask two questions: first, in each case, what major characteristics are emphasised? second, what perspective and set of problems does each case highlight?

A major characteristic of autism, especially in child psychiatry, as suggested by Kanner, is extreme loneliness and social withdrawal or impairment of social interaction (Wing, 1992). Within such a perspective, autistic children can be treated by psychoanalytic techniques in clinics and hospitals by child psychiatrists and psychotherapists. Since the treatment in most cases consists of a few hours every week, the parents' ability to deal with the child between

periods of treatment becomes an important ingredient for therapeutic success. Those families which have limited abilities to cope with the problem of their autistic child are forced to institutionalise their children, while others who are able to build on gains made in clinics or schools have had remarkable success with their children. The impairment of social interaction of autistic children is shown in a number of features. These include: treating people as inanimate objects, lack of attention to people and feelings, behaving inappropriately in the social context and lack of awareness of other people's thoughts/needs/beliefs.

A second major characteristic which many educationalists emphasise is the impairment of language and communication (Rutter, 1978; Wing, 1992). To them, the need to improve autistic children's communication ability through education is crucial to their general development. In addition, they suggest that lack of communication skills may be the primary cause of autism. The literature indicates a direct link between communication and behaviour and the focus on communication as a pivotal type of behaviour reduces the need for many related interventions (L.K. Koegel, 1995). For these autistic children, a number of abnormalities in their speech may prevail, such as Echolalia, reversal of pronounciation, unfamiliar pitch, etc. It is also recognized that the communication/ social interaction deficit of autism may be the real cause of the misbehaviour of the child (Iwata et al, 1982), and that lack of communication may explain the apparent non-compliance with behaviour management (Volkmar and Cohen, 1982). L.K. Koegel et al (1992) found that when children are taught to engage in appropriate communication, inappropriate behaviours, such as aggression and self-injury, decrease without special intervention. The impairment of language and communication is shown in a number of features. These include: difficulty in understanding ambiguities and jokes, a literal interpretation of what is said and the need to have short and clear phrases restricted to basic words.

A third characteristic is ritualistic compulsive and obsessional behaviour (Rutter, 1978), self-stimulatory behaviour and extreme irrational fear or phobias. Usually, the child will be obsessed by events in the environment which most

people would not notice, while at the same ignoring more important events. The child may focus on repetitive activities, such as spinning circular objects, or may resort to compulsive questioning. Furthermore, s/he may engage in ritualistic activities, such as lining toys up in straight lines (Howlin and Rutter, 1987). In addition, the autistic child may develop fears of harmless things, for example pets. Self-stimulatory behaviour includes such activities as hand flapping and body rocking.

A fourth characteristic is resistance to change and a demand for sameness (Wing, 1986). Kanner identified the obsessive desire for the preservation of sameness as the second major characteristic symptom of autism (Kanner and Eisenberg, 1956). Autistic children will display limited and rigid play patterns (Rutter, 1978) as well as insisting on some degree of rigidity and routine throughout their lives. They interact with only a very restricted number of stimuli (Lovaas et al, 1971), and as a consequence lack the necessary motivation for interaction. In addition, they demonstrate impairment of imaginative development (Wing, 1992). Hadwin et al (1996) suggest that people with autism suffer from weak imagination and lack of generalization. The impairment in flexibility is shown by many features such as: dependence on routine, resistance to change, lack of minimal symbolic play and poor imitation skills.

A fifth characteristic of autism is abnormalities in response to sensory events (Wing, 1986) or to the environment. For example, the child may be unaware of real dangers because s/he does not recognise them as such. In addition, the autistic child is characterised by over-selective responsiveness. Over-selectivity refers to 'responding to an overly restricted portion of relevant cues when learning to differentiate components of the environment' (Roesenblatt et al, 1995). Lovaas et al (1971) were the first to identify the child's lack of responding to a multiple component in the environment and defined this trait as stimulus over-selectivity. The existence of over-selectivity has various effects on the development of social behaviour, language acquisition, generalization

and safety (Roesenblatt et al, 1995). Effective intervention to deal with over-selective responding in autistic children could have a large impact on their overall functioning and lead to major advances in their social behaviour and responsiveness to their environment (Schreibman, 1988).

An important characteristic, not mentioned by Kanner, is the impairment of the perceptual process. Some experts observe the dissimilarity of behaviours or divergence in the ability to learn of autistic children which necessitate the individualization of the educational process. Within such a perspective, autistic children differ so much from one another in their behaviour, which so overlaps with that of other children that efforts to categorize tend to be futile. Such divergence was the main reason why the special education department in Kuwait is following a policy of not including autistic children within the population of mentally retarded students, even though some desperate parents wanted their inclusion since no other educational alternative is available.

The first four characteristics could be considered as the core impairments while the remaining ones could be considered as associated characteristics which not all autistic individuals demonstrate.

The review of the syndrome's characteristics is essential in considering the educational needs of autistic children within our programme. In addition, it highlights the existence of a set of interrelated deficiencies that often result in educational, behavioural, social and family problems. It will also help us in the identification of the major factors that will influence the education environment. These characteristics include:

1.   A language and communication deficit.

2.   A deficit in social interaction and the tendency for social withdrawal.

3.   Extreme variation in levels of intelligence, which may range from profound mental deficiency (the majority) to giftedness (rarely).

4.   The occurrence of inappropriate behaviour or irrational acts.

5.   The impairment of the perceptual process.

6.   Rigidity and the demand for sameness and consequently the need for a structured programme and routine.

7.   Abnormality in response to sensory events and a deficit in responding to environmental stimuli.

Kanner (1943) defined autism as the earliest form of childhood schizophrenia. The term is, consequently sometimes used interchangeably or confused with terms such as childhood schizophrenia and childhood psychosis (Furneaux and Roberts, 1977; Rutter and Schopler, 1987). Both definitions were in existence before the term autism was used and they are commonly used to describe forms of adult mental illness. Due to their similarities, Kanner (1951) expressed the view that the two conditions, autism and schizophrenia, were ultimately linked. However, a follow-up study by Demyer et al (1973) has shown that most autistic children grow into adulthood without displaying schizophrenia. The prominent feature of schizophrenia is the presence of delusion or hallucination. Neither of these occurs in autistic disorder. With the development of more systematic studies, the distinction between autism and childhood schizophrenia was confirmed (Kay and Kolvin, 1987). Consequently, in terms of categorisation, autism was moved from the emotionally disturbed category to the developmentally disordered category (Schopler and Mesibov, 1984).

However, two questions are usually raised about approaches to diagnosis by the use of such criteria: first, how many of these criteria are necessary to make an accurate diagnosis; and second, what is the time interval over which the features or criteria become prominent and permanent? The

answers to these questions will enable us to show clearly that the group of symptoms which define autism do exist together in a way dissimilar from the patterns of symptoms which characterize other disorders. One way to avoid confusion between autism and other conditions is to develop criteria or sets of characteristics by which autistic children are diagnosed or labelled as a separate group.

Asperger, an Austrian physician, described in 1944 similar characteristics to those of Kanner but with insight that Kanner lacked (Happé, 1995). Asperger's disorder, which is an impairment in social interaction and range of interests, but with no delay in language or cognitive development or problems with self-help skills or curiosity about the environment, has attracted widespread attention among psychiatrists. Kanner and Asperger agree about most characteristics of autism, such as bizarre behaviour and stereotyped idiosyncratic language, but they differ in the areas of language, coordination and learning abilities. Considerable debate continues among developmental psychologists over whether Asperger's syndrome can be differentiated from high-functioning autism (Trevarthen et al, 1996; Happé, 1995). Szatmari et al (1990) conclude from their study comparing the latter and Asperger's syndrome subjects that there is no substantive qualitative difference between them and that Asperger's syndrome could be considered a mild form of high-functioning autism. Due to many similarities, Gillberg and Peters (1995) suggest that the spectrum of autistic disorders should be viewed through IQ (or a multi-dimensional structure of features) where we could place autism in the middle and Asperger's syndrome in the upper section. Trevarthen and colleagues (1996) argue for a clear differentiation between the two syndromes rather than the empathy continuum. Interest in Asperger's syndrome has increased due to the fact that it may answer the question of why some people with autism acquire mentalizing ability and communicative capacity while others do not.

Although the Kanner List is probably sufficient, many diagnosticians try to use a more detailed description by developing tests and scales, such as

CARS (Childhood Autism Rating Scale) (Schopler et al, 1980), the PEP (Psychoeducational profile) (Schopler and Reichler, 1979) and the ABC (Autism Behaviour Checklist) (Krug et al, 1980). Details of such techniques will be discussed in Chapter Four. Although variations or disagreements exist regarding specific diagnostic characteristics, the DSM-V (American Psychiatric Association, 1994) criterion is viewed by most experts as the official classification system. Details of DSM-V are displayed in Table 3.1. Two other sets of diagnostic criteria are also occasionally utilized: that of the 'National Society for Autistic Children' and the World Health Organizations's International Classification of Diseases (ICD).

The National Society for Autistic Children has published a list of symptoms related to autistic children which was suggested by Dr. Wing. The National Society for Children and Adults with Autism (1978), proposed that autism could be defined as a behavioural syndrome with disturbances in the following areas:

(1)   developmental rates and/or sequences

(2)   responses to sensory stimuli

(3)   speech, language and cognitive capacities

(4)   capacity to relate people, events and objects.

Another well-documented and internationally accepted diagnostic system is the ICD. The ICD-10, in its tenth version (ICD-10, WHO, 1992), incorporates the notion of a trend of impairments. It defines childhood autism as the impaired or abnormal functionality (1) in reciprocal social interaction, (2) in communication, and (3) in stereotyped, repetitive behaviour.

The current trend is towards treating autism as a developmental disorder rather than a mental illness. This implies that autistic children should be compared with normal children. Within such an orientation, the most commonly used definition is the one proposed by the American Psychiatric Association in

1987, known as DSM-III-R which classifies autism as a pervasive developmental disorder. In 1994, a more rigorously controlled system was developed and labelled DSM-IV (DSM-IV, APA 1994). The definition emphasises three characteristics, which should be presented before the age of 3 years, as indicated in Table 3.1 below.

Table 3.1

Diagnostic criteria of autism according to the DSM-IV (APA (1994))

A. A total of six (or more) items from (1) (2) and (3), with at least two from (1), and one each from (2) and (3):

(1) Qualitative impairment in social interaction, as manifested by at least two of the following:

    (a)   marked impairment in the use of multiple nonverbal behavior such as eye-to-eye gaze, facial expression, body posture and gestures to regulate social interaction

    (b)   failure to develop peer relationships appropriate to the developmental level

    (c)   a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g. by a lack of showing, bringing, or pointing out objects of interest)

    (d)   lack of social or emotional reciprocity

(2) Qualitative impairments in communication as manifested by at least one of the following:

    (a)   delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime);

    (b)   in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others;

    (c)   stereotyped and repetitive use of language or idiosyncratic language; and

    (d)   lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level.

(3) Restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:

(a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus

(b) apparently inflexible adherence to specific, nonfunctional routines or rituals

(c) stereotyped and repetitive motor mannerisms (e.g. hand or finger flapping or twisting, or complex whole-body movement)

(d) persistent preoccupation with parts of objects

B. Delays or abnormal functioning in at least one of the following areas with onset prior to age 3 years:

(1) social interaction
(2) language as used in social communication
(3) symbolic or imaginative play

C. The disturbance is not better accounted for by Rett's Disorder or Childhood Disintegrative Disorder.

Wing (1989) referred to these three groups of symptoms, occurring together, as 'the triad', and suggested differentiating between associated abnormalities, such as motor coordination and responses to sensory stimuli and those of the triad. The set of these core impairments, which is known as Wing's triad, is the basis for most scales and tests for the diagnosis of autism (Happé, 1995). Phelps and Grabowski (1991) indicated after reviewing the criteria of National Society for Autistic Children and DSM-IV, that all agree that autism is marked by: (a) a very early age of onset, (b) impaired social development, (c) disturbance in language development, and (d) perseverance and rigidity of behaviour.

What makes autism the focus of the interest of many studies is that we are unsure about the aetiology of the condition and its causes, nor can the pattern of behaviour that will result from it be predicted. There are huge differences in its scale and severity. Wing (1988) suggests that we can understand autism as a spectrum of disorders while Gillberg and Peeters (1995:46) definition is: 'the behavioural expression of neurological dysfunction, based on brain abnormality' caused by multiple factors. What makes it so severe is that most of the time it is linked to difficulty in communication and lack of speech or language. The result is great frustration for autistic children. Furthermore, some children have autistic features which are not as severe as those of autistic children. Happé (1995) argued against using the term 'autistic-like' because autism prevails when three impairments co-occur and cohere to form a true syndrome. She indicated that when people categorise an individual as autistic-like, they could mean a number of interpretations and not a definite one, for example:

(1) The child categorised could be atypical and not conform to the stereotyped description of autism. For example, s/he may lack the aloofness described by Kanner.

(2) The child categorised is more able than most autistic children.

(3) The term is used to refer to only some aspect of the child's behaviour, such as communication.

Kanner (1943) reported in his study that some autistic children showed peak skills of mental functioning in music, maths or painting. Studies show that 10% of such children do have these savant abilities or 'isles of excellence' (Rimland, 1978); nevertheless, the remaining 90% remain mentally retarded. So peak skills' occurrence is not a primary feature in a disorder that coexists with mental retardation. Thus, this research will focus only on autistic children (as opposed to children with autistic features) and those who do not have savant abilities.

3.2 The biological and cognitive nature of autism

Early studies of autistic children, such as those of Kanner (1943), proved that many of these children come from well-educated, intelligent parents of high socio-economic status. Nevertheless, as more studies were conducted, it became clear that autism is found equally in all social classes and cultures. The similarity in outcomes of such studies, despite location and method of data collection, suggests that the biological causes of autism are independent of social or cultural factors. Gillberg and Peeters (1995:50) suggest that 'these cognitive problems may be specially correlated with dysfunction of certain neural circumstances in the temporal and frontal lobes and the brain stem cerebellum'. Those areas which are interconnected through various neural circumstances have an essential role in the development of social and communication interaction.

The fact that autism may be characterized by a triad of impairment, especially in socialization, communication and imaginative ability (Wing and Gould, 1979) means that researchers have been unable to indicate a single cognitive deficit that would account for such diverse impairment. One of the psychological theories which attracts a great deal of interest currently is the "theory of mind" advocated by Baron-Cohen and colleagues, which will be discussed in detail in the next section.

The biological theory of autism advocates that one of several biological factors is the likely cause of the condition. Autism occurs by itself or in association with other medical disorders (Phelps and Grabowski, 1991) which affect the function of the brain. There are many medical conditions that have been identified with autism, such as genetic conditions, defects in the temporal lobe (Hoon and Reiss, 1992), parietal lobe abnormalities (Courchesne et al, 1993), metabolic disorder and infectious diseases (Steffenburg and Gillberg, 1989), encephalitis, phenylketonuria, tuberose sclerosis, anoxia during birth and maternal rubella (APA, 1994), and biochemical abnormalities, such as elevated serotonin levels. For example, some children diagnosed as having autism have

been found to be victims of Landan-Kleffner syndrome or LKS (Neville et al, 1995). When LKS strikes, children lose their receptive language skills and often develop autistic symptoms, including withdrawal, aggression and resistance to change. Identifying children with LKS is important because with early treatment, it may be possible partially or completely to correct the linguistic and behavioural problems. However, Rapin (1995) suggests that there is a tendency to confuse LKS and autistic regression, which are two distinct conditions.

Rare genetic disorders can be associated with autism. Children, for example, with fragile X syndrome, are known to display a high incidence of the condition (Hagerman, 1989). However, though a range of medical conditions may cause autism, these do not alone account for all cases. For example, Shattock and Lowdon (1991) found that 80% of their autistic subjects demonstrated a distinctly abundant pattern of peptides, i.e. fragments of protein; some of these fragments are opiates, substances which exert opium-like effects on brain cells.

The inability to identify specific biological factors for autism in all cases indicates that the biological theory is definitely proved in some cases only. It appears, therefore, that several factors in amalgamation with others may predispose a child to developing autism. As a conclusion, we are able currently to indicate only that the associated abnormalities are likely to be indirect manifestations of autism.

One difficulty with autism is that it becomes evident only at some time in the first few years of life. Currently, it is rare to diagnose the condition before the age of two years and, in many instances, it is not diagnosed until a few years later. This raises the question of what factors prevent the diagnosis of such symptoms in infancy.

Many factors contribute to the lack of early diagnosis. First, before two years of age, the pattern of behaviour may not be clear enough to allow a concrete diagnosis to be made. Second, when autistic children also have another visible disability, such as mental handicap, it attracts the attention of parents and physicians and as a result it allows the autism to remain unidentified. Furthermore, one of the main criteria in detecting autism is the lack of speech and language which is easier to diagnose when development has progressed to the level that allows for full language assessment. Lastly, in a few autistic children there is an initial period of relatively normal development, followed by autistic development and loss of skills. This decline will most likely occur after two years of age, which implies that diagnosis in these circumstances is impossible before the problems begin (Baron-Cohen and Bolton, 1993). In addition, a late diagnosis may occur simply because parents with no experience of the normal developmental progress may not be aware of the problems with their child's development or the facilities for such diagnosis is lacking. Further, many parents, especially in under-developed countries, may be reluctant to diagnose their children because they are ashamed of it. Others may not feel it is necessary.

In summary, current research is focusing on the neurobiologic, prenatal and perinatal factors in autism, which may vary among children and provide neither a necessary nor sufficient explanation of the condition. There is overwhelming evidence that autism has major biological roots (Steffenburg and Gillberg, 1989). However, we are not concerned primarily in this research with the aetiology of autism but rather with appropriate intervention to reduce its impact. Within the context of both Kuwait and other oil rich countries, lack of appropriate medical capacity and facilities will not allow any meaningful contribution from the biological perspective. The review of the literature indicates that the requirements of an effective education programme for autistic individuals may be complicated and multi-disciplinary. This is due to a lack of understanding of the aetiology of the autistic syndrome. However, the absence of a clear aetiology of the condition does not undermine the role of the medical

profession in curing some of its biological factors. This calls for concerted efforts by all interested parties. It indicates the importance of close cooperation between the educational programme and the support and medical services, which will be one of the principles of the proposed programme.

3.3 Trends in the study of autism

The diverse trends in the study of autism reflect the complexity of the syndrome. In the following section, we will investigate the main trends, including psychoanalytic theory and cognitive development approaches.

Advocates of the psychoanalytic theory of autism see poor parenting as the cause of the condition and emphasise the social/emotional environment. Bettelheim described autism as a reaction to extreme negative psychological mother-child interaction (Bettelheim, 1967). Some scholars, such as Eisenberg and Kanner (1956) suggest that parents, especially the mother, are a strong if not total causative factor in the onset and maintenance of autism in their child. Bettelheim attributes autism to the emotional coldness of parents, specifically that of the mother. He coined the term 'refrigerator mother', to denote the mother who does not know how to, or does not bother, to relate to her child. The children (in a residential institute) were said to be withdrawn from pathological parents whose unconscious attitudes produced the children's autistic symptoms. As indicated by Rimland (1988), Bettelheim's position was influenced heavily by his suffering as a prisoner in a Nazi death camp. No evidence supports the psychogenic explanation of autism and such views are currently discredited (Happé, 1995). Advocates of such a theory indicate a fundamental misguidedness about autism derived from a misconceptions about the level of modern psychoanalytic theory and also from generalizations about the clinical practices of child psychotherapists (Spensley, 1989:238). However, during the 1970s and afterwards, research shifted to conceptualise autism as a cognitive and linguistic impairment which requires behavioural interaction (Quill, 1995) rather than a psychoanalytic focus.

Evidence shows that a prenatal fault in brain development can cause autism but parental behaviour cannot (Trevarthen et al, 1996). The abandonment of the psychoanalytic theory has important consequences for professionals' attitudes towards parents. As Schopler and Mesibov (1984a:3) said, 'There is no single aspect of our knowledge developed during this period (the last 40 years) that is more far-reaching and important to the effective and humane treatment of autistic people than change in attitudes toward parents'. With the erosion of the psychoanalytic theory, parents are able to develop more productive relationships with professionals because guilt and suspicion are eradicated and the way is cleared for open intervention. Furthermore, the abandonment of the psychoanalytic approach has promoted the application of behavioural modification.

Some researchers suggest that the causative factor is not a single one; rather a particular combination of factors is said to be operative in the condition. Within such a context, some scholars suggest that the child is born with a vulnerability - predisposing factors present at birth - which, in combination with environmental factors, given rise to autism. One suggestion is that children later diagnosed autistic are born with particularly well-developed hearing and vision which make them more vulnerable to wrong-doing in their environment. Nevertheless, such an approach cannot explain the behaviour of those autistic children who are severely disabled from birth, or lack sensory abilities.

The advocates of cognitive developmental approaches suggest that the basic deficit in autistic children lies in their cognitive processing, such as verbal and non-verbal language (Rutter, 1978) and social relatedness. Rutter argued that a cognitive deficit is the basis of autism and rejected the emotional disorder theme of psychoanalytical theory. Scholars such as Goldfarb (1961) suggest that the central nervous system in autistic children is responsible for deficits of perception and faulty integration of different aspects of the nervous system. This leads to their inability to cope with and to digest information they receive.

Lovaas and his colleagues (1971) have emphasised the feature of 'stimulus over-selectivity', when the autistic child can attend and respond to only a single aspect of a complex stimulus. Recently most research has focused on the cognitive executive-function of the autistic child. Most autistic children perform unsatisfactorily on executive function tasks (Ozonoff et al, 1991). However, research does not support the idea that the central deficit in autism is the lack of cognitive capacity (Trevarthen et al, 1996).

A more sophisticated form of the cognitive developmental approach is the "theory of mind". A growing body of research indicates that autistic children have difficulties in reasoning about mental states, which may underline the children's social and communication abnormalities (Baron-Cohen, 1995). This approach suggests that autistic children may be unable to understand what other people know or feel, or to predict behaviour on the basis of such knowledge (Happé, 1995). This reflects an abnormality in the early stages of development.

The theory of mind approach aims at developing and reformatting an adequate cognitive psychological theory which refers to the ability to attribute independent mental states to oneself and others, enabling us to explain and predict behaviour. Autistic children lack the ability to think about other people's mental states, which indicates an 'impairment of the fundamental human ability' to 'mind-read' (Happé, 1995:138), and hence to have empathy. Empathy deficit may be defined as a lack of the 'ability of all normal people to mentalize about the thinking and feeling states of other people' (Gillberg and Peeters, 1995:39). This deficit in understanding other people's minds could account for the triad of autistic impairment (Frith, 1989b). As a result of difficulty in empathizing, autistic children attend to details rather than wholes, and are inflexible in problem solving and deficient in mind-reading.

Advocates of the theory of mind approach argue that autistic children may be able to form a primary stage of mental representation (Philips et al,

1992), but cannot manipulate and integrate this information for such skills as pretending or understanding the unseen thought processes of others. It was demonstrated by Frith (1989b) in the 'smarties task', that autistic individuals fail other false-belief tasks. In the smarties task, the child will be asked to guess what is inside a closed smartie (a kind of sweet) tube. This is a primary-stage representation. When the child answers 'sweets', the tube will be opened to show the real content, a pencil. Then it is indicated to the child that somebody (Bill) will enter the room and the child is asked, 'When Bill enters the room, I am going to show him this tube, closed up like I showed you before. What will Bill say?' In this task, which a normal 4-year old will pass, a child with autism will fail to recognize that Bill will have a false belief that the tube contains smarties and not a pencil and he will answer 'pencil'. The lack of a theory of mind, and the related inability to determine what is relevant could be the root of autistic children's communication problems (Frith, 1989b).

However, the theory of mind approach suffers from many weaknesses: mentalizing deficit or failure on false-belief tasks are not universal and such deficits may originate from primary impairment, such as emotional perception deficits, lack of joint attention behaviour and prementalizing deficits (Happé, 1995). In addition, the majority of autistic children cannot be examined for a verbally mediated 'theory of mind' since they lack a sufficient level of language expression for such tests (Fay, 1993). Furthermore, studies have found no correlation between social skills and theory-of-mind skills, while, in addition, some children show a deficit in social skills early in their life before any possible theory-of-mind development issues could come into play (Waterhouse, 1995). Hadwin et al (1996) indicates that autistic children, after a relatively brief intervention, are able to pass emotion and belief tasks but their ability to generalize what they learn has proved to be problematic.

One focus of current research is understanding the links between the psychological and the brain abnormalities in autistic children. Some studies indicate damage of the frontal lobe (Ozonoff et al, 1991) and a reduction of

cerebral blood flow in the temporal lobes (Gillberg et al, 1993). The impact of these deficiencies is substantial and leads to considerable developmental disorder. For example, a failure of the cerebral system, which regulates a child's motivation for learning meaning in communication, will lead to impairment in communication.

On the one hand, some researchers, citing neurological abnormalities such as disturbance of body and emotional facial paralysis, have proposed these as the cause of autism (Tsai, 1989). On the other hand, the neurophysiological research indicates a typical pattern of cerebral lateralization, differences in brain-stem responses, abnormal EEG and cerebellar asymmetry in specific areas (Murakami et al, 1989; Tsai, 1989). There is a wide variation in the abnormalities reported from structure and functional CNS (Central Nervous System) Imaging Test (Trevarthen et al, 1996). CNS affects language, cognitive and intellectual development and the ability to relate. The neurobiological studies of autism indicate various abnormalities, but these are not consistent. Both biological and neurophysiological findings indicate that 'autism is a disorder of the same regulatory core system of the brain that is found to control the patterning of normal brain maturation and to motivate learning in the adult' (Trevarthen et al, 1996:94). Nevertheless, we are still puzzled as to the precise area of damage in the brain of autistic children.

Currently, more evidence supports the biological theory which advocates that autism occurs in individuals who have one or several brain abnormalities caused by one or several biological factors and/or organic conditions.

Other research has focused on the association of autism with cytogenetic abnormalities, including fragile-X-syndrome and single-gene disorder (Trevarthen et al, 1996). Fragile-X-syndrome is a condition in which a part of the X chromosome is defective. Furthermore, a variety of single-gene disorders, which are not associated with chronological abnormalities, have been reported in autistic patients. Phenylketonuria (PKU) is the most common such single

disorder associated with autism (Hagerman, 1989). The lack of this single-gene, which codes for the enzyme required for the body to process phenyklarine, an amino acid, could lead to developmental delay. However, routine neonatal screening in UK has suggested the elimination of this factor as a cause of the condition in the UK (Treverthan et al, 1996:209).

Most evidence indicates a genetic disposition (Reichelt et al, 1991) or brain damage (Steffenburg, 1991) as the main cause of autism. Research suggests multifactorial causes involving a combination of genetic factors, possibly in conjunction with environmental determinants such as viral infection. Szatmari and Jones (1991) divided the causes of autism into three aetiological groups: exogenous, autosomal recessive (caused by the non-sex chromosome), and x-linked (caused by the female sex chromosome).

There is an indication that the symptom profile could vary considerably depending on the associated medical conditions, such as fragile-X, Rett's Syndrome, etc. (Gillberg, 1992). Rett's Syndrome is a pervasive developmental disorder found only in females, characterised by a normal early period followed by head growth deceleration, psychomotor retardation and severe problems with language development. There is less association between autism and sensory loss or physical disability. However, many children may suffer from epilepsy when they reach adolescence. As indicated by Haracopos (1989:252), 'there is a widespread agreement that the causes of early-onset autism are primarily the result of some kind of brain abnormality, implicating a range of genetic, biochemical and neurological defects, resulting in cognitive, social and linguistic impairments as well as specific deviant behavioural patterns'.

In summary, autism could be the result of multiple primary deficits, either at the biological or psychological level. This review indicates the complexity of such syndromes, necessitating a comprehensive range of approaches. Many different available approaches to intervention can bring improvements in learning processes. A review of such approaches will be the

subject of the next section. Researchers do not seem to be as concerned with assessing the causative explanations of autism so much as enquiring into what specific malfunctions the autistic child has to cope with and how the situation may be remedied.

3.4 Review of Approaches to Care for Autistic children

Many different approaches to caring for autistic individuals have been tried. All have their successes and failures. There is no one solution to all the syndromes or for all individuals. This section will review the major well-established programmes, indicate their bases for intervention and identify their ingredients of success.

The literature on autism is rich with many approaches that have been developed and used to tackle this phenomenon. The diversity of such approaches indicates the lack of agreement on the causes of the disorder, as well as the dedication by professionals to deal with it. The analysis will reveal that some approaches differ substantially in their objectives, components and the amount of time and effort required for their effective implementation. It can also be observed that there are areas of overlap and similarity among most of the approaches. One advantage of having available a diverse range of approaches is that it will enable us to accommodate the diverse abilities and needs of autistic children. Nevertheless, the answer to the question of how effective and beneficial each approach is will depend on the individual child's abilities, level of family support, existence of qualified staff and the availability of favourable conditions needed to make such approach efficient and workable. It is, therefore, very difficult to evaluate each approach in isolation, and this is not the aim of this research. Nevertheless, we can still try to evaluate each approach extensively through reviewing its main components, indicating its strengths and weaknesses as well as the favourable conditions under which it may become effective. While examining each approach, we will elaborate on areas emphasised and what categories of people it may be expected to serve and help. In addition, we will make the necessary assessments about the main

achievements claimed by each approach and its major components that could be envisaged as part of our proposed programme. Due to the diversity of these approaches, they are grouped according to type or area of emphasis. Our focus will be on those most widely used and those considered capable of contributing to the design of our programme.

This review is not concerned with approaches which focus on educating autistic children in residential environments, such as the educational/residential programmes developed by the Scottish Society for Autistic Children, and the educational, developmental, residential care programme which was developed by the National Autistic Society and May Institute in the USA (Luce and Christian, 1989). This is because the programme proposed in this study is a day programme, with no residential component. It must be remembered that parents in Saudi Arabia and Kuwait prefer to keep their children at home.

We have also excluded those approaches that are based on the system of diet or food intake (Shattock and Lowdon, 1991; Crowell and Crowell, 1992), because we feel that they will not have any direct relevance to our proposed programme. Such approaches are purely medical and nutritional, while the programme will focus on educating the autistic child. Furthermore, the success of such approaches requires frequent and continuous observation by a competent MD with training in nutrition, as well as commitment and perseverance from parents, both of which are difficult to find in the countries with which we are concerned. Those families in both countries, who are interested in such dietary intervention, order mega vitamins through the mail. However, when they give vitamins to their children, they are not sure of the outcome, nor are they able to monitor progress. Furthermore, the effectiveness of such dietary approaches requires a control on the environment of the child. Since most of the families live within an extended family, with many relatives and domestic staff around the house, it will be difficult for a family, without very strong commitment, to control and preserve the child's diet. However, for committed parents who wish to try this approach, the programme will provide

all relevant information. Affiliation with a research centre in the USA or UK which is interested in following up the effectiveness of the nutritional approach in a developing country would be one way of enhancing such support.

In some cases, where autism may be linked to inborn immune or metabolic disorders, dietary intervention could be helpful (Shattock and Lowdon, 1991). Such an approach is that of megavitamin therapy. Many studies suggest that the use of megadoses of vitamin B6 and magnesium can reduce autistic symptoms significantly and correct some of its abnormalities (Rimland, 1973; Menage et al, 1992). Gualtieri et al (1987) argued for the therapeutic efficacy of megavitamins and detailed their side effects. However, no controlled study has, as yet, demonstrated the benefit of such treatment (Greenbaum, 1970; Gillberg, 1989a). Knivsberg et al (1995) advocate dietary intervention and report a decrease in odd behaviour and an improvement in the use of social, cognitive and communication skills. On the other hand, advocates of this approach lack concrete evidence of its effectiveness as a treatment. The situation is similar with regard to pharmacotherapy or drug treatment. Currently there is no universal drug that will eliminate autistic behavioural symptoms. However, the effectiveness of specific drugs in some groups or individuals has been established (Campbell, 1989). As such, the best medical treatment will be that which is designed specifically for the individual patient in accordance with individual clinical and laboratory results. The lack of medical expertise and laboratory facilities does not encourage the pursuit of such an approach in Kuwait and Saudi Arabia. Furthermore, since the use of medication in the treatment of autism is controversial, parents and other professionals should use this approach with extreme caution. Consequently, such approaches have not been discussed in detail in this section.

Likewise, we have not discussed in detail those approaches which promote family education and parental involvement, such as the Home-based teaching project (Howlin and Rutter, 1987) and Video Interaction Analysis and Video Home Training. Video Home Training, which was developed in the

Netherlands by Harrie Biemana, is a useful technique to provide intensive help for families with disturbed children. However, in order to administer the technique, it is necessary to have a qualified trainer, which the programme currently lacks. Furthermore, the technique requires that the instructor video tape the family during its private activities, such as eating dinner, bathing, etc. It is expected that most families would reject such methods due to the conservatism of the society. Nevertheless, the programme will utilize such techniques to enhance parent awareness and education, and some of these treatments, when combined with others and supported by committed parents, may lead to improved communication and better social interaction.

In treating and educating autistic children, there are many approaches. We will focus, however, on the major ones, including: behaviour management, sensory integration, physical, educational programmes, communication aids, and techniques focusing on the relationship between the child and the guardian.

Behaviour management: The first approach is a collection of techniques that could be categorised under the term behaviour management. This is a 'behavioural-science technique which involves the application of principles derived from research in experimental psychology to alleviate human suffering and enhance human functioning' (Brown et al, 1976). Continuous evaluation and feedback are essential ingredients for the effectiveness of such method. Within this category, if children exhibit aggressive or disruptive behaviour, they are presented with some types of consequences: time-out or physical punishment. This approach aims at improving the acquisition of specified skills and curriculum teaching.

Behavioural techniques are effective tools in managing autism (Schreibman, 1988). Some of the techniques not only aim at encouraging autistic children to learn but also involve their parents. An example is the Walden approach, as well as behaviour management. The latter is an important

technique, which was developed by Ivor Lovaas in Los Angeles. Lovaas (1986) was a pioneer of applying operant learning strategies to the understanding and modification of the behaviour of autistic children. Positive behaviour is rewarded while negative behaviour is ignored or punished. This approach sometimes includes the use of modest aversive techniques, particularly verbal punishment as a tool of its goals (Lovaas, 1986). This approach usually emphasises what the teacher should say to the child for any misbehaviour and where and when to say it. Practitioners can, in addition to modest aversival techniques, use a variety of available reward systems to reduce inappropriate behaviour. One requirement is that the teacher has to dedicate much of his time to the child. It may be necessary to work with the child for more than eight to ten hours a day, which is an exhausting task. McEachin, Smith and Lovaas (1993) indicate that a high proportion of autistic children could be successfully integrated to mainstream schools if early intensive behavioural treatment was applied. Groden and Baron (1991:7) claim that behaviour therapy is 'broadly accepted as the most well-developed, reliable and effective treatment intervention with persons who are autistic'. It has been successful in the management of specific behavioural problems which interfere with the learning process. One major weakness of the approach is that gains may diminish should the treatment be terminated (Lovaas et al, 1989).

In behaviour modification, there are many approaches. DRO or differential reinforcement of other behaviour is one such method. The practitioner will offer each child a favourite food when aggressive behaviour does not occur. A study conducted by Sisson and his colleagues (1988) shows that such a procedure when implemented alone is not so effective, but when an aversive procedure is added to the DRO procedure, children's maladaptive behaviour can be sharply reduced.

Within behavioural management, the roles of self-control and self-management remain absent (Baron et al, 1991), though some researchers think they are very important. Self-management is an approach that facilitates

independence by systematically decreasing reliance on external control (e.g. external feedback, teaching instruction) and shifting control to the child (Fowler, 1984). Some researchers have indicated the advantages of teaching self-control responses (Drabman et al, 1973) including appropriate vocational, academic, social and recreational skills; its implementation in the suggested programme will, however, be delayed to a later, advanced stage, because such an approach needs wider parental participation. Unless the programme is able to reduce aggressive behaviour through behaviour management, parents will not be encouraged to participate in such procedure. It is necessary that such an approach is implemented when the environment is conducive. Since parents are concerned with the child's challenging behaviour, the programme will emphasise channelling such behaviour into more useful activity. As such, it is important to utilise behaviour management though the causes of such behaviour are not known. Reducing the challenging behaviour of the autistic child will satisfy many parents, and the wider society.

The tendency in behaviour management is now towards more self-management which increases the social responsiveness of autistic children. L.K. Koegel and his colleagues (1992) reported that such a technique offers the autistic individual more independence, reduces staffing needs and can also be natural and unobtrusive. Children are reinforced for making the correct response and the management of such enforcement is implemented with little intervention from the staff.

One criticism of this approach is based on the idea that inappropriate behaviour is the outcome of the inability of the child to communicate (Carr and Durand, 1985; Koegel, Valdez-Menchaen and Koegel, 1994). As such, these techniques may look into the symptoms rather than the causes of the behaviour. In addition, the technique is of limited value since those children fail to make the necessary link between their behaviour and its consequences (Wing,1989). Nevertheless, one of the method's great advantages is its effectiveness in reducing severely maladaptive behaviour due to its rigorously

structured educational method.

The selection of aversive versus non-aversive intervention in the area of behaviour modification is critical. Most researchers have argued for the effectiveness of the former, but some question their practical utility (LaVigna and Donnellan, 1986). The use of such techniques, which attempt to decrease a specific behaviour through the intentional application of unpleasant or even painful consequences, is forbidden by law in many states in the USA, in the UK and in Kuwait. The programme will evaluate each situation and exhaust all other types of non-aversive intervention alternatives before implementing aversive procedures. However, if the situation necessitates such aversive interventions because of self-injury, reasonable investigations into the antecedent conditions that led to such behaviour will be conducted. The application of such techniques requires:

(1)   understanding of the basics of good behaviour;

(2)   careful selection of the best intervention;

(3)   the awareness of other available techniques;

(4)   the individualization of such intervention with careful assessment and regular revision.

The behaviour programme should take into account alterations in the environment to produce desired behavioural change (Baron et al, 1991).

Under this educational technique, we can include mediated learning and low-intrusion teaching. The former aims at having a flexible, individualized approach based on behaviour as well as on the dynamic assessment of the child's modifiability. Through mediated quality of interaction, the teacher will make stimuli accessible to the child and interpret them in such a way as to enable the child to select, relate and like them. This approach emphasises the uniqueness of each child and directs him/her to benefit from the opportunities provided. The components of the method, such as the dynamic assessment and the preparation of the child for socialised learning, will be valuable

additions to any educational programme.

The low-intrusion technique aims at reducing the social intrusiveness of the teacher to a level that enables the child to cope with it. This approach aims to remove the obstacles, such as social avoidance, that prevent an autistic child from learning. The technique is useful in novel tasks and is important because it emphasises the effective role of the teacher in reaching the child. The programme will encourage its use, especially in situations involving interactive communication, mainly in a relaxed social environment. The programme will not, however, make the technique compulsory.

Sensory integration: Another group of approaches is based on the abnormalities or deficiency of responses of the sensory or nervous system. In a study about specific attention deficit in autistic individuals, Clesielski et al (1990) found that such individuals may be using a totally selective-attention mechanism that normal individuals do not encounter. This group could include sensory integration therapy and auditory integration training, which emphasise the stimulation of the child's senses. The basis for sensory integration therapy is that autistic children have a deficit in sensory feeling. Sensory integrative therapy aims at harmonizing the tactile (touch), vestibular (movement) and proprioceptive (body position) functions to work closely with other systems in order to make appropriate responses to incoming sensation and to the environment (Sensory Integration International, 1991). There is a growing controversy about the effectiveness of such an approach since the research on the topic has been inadequate and poorly controlled (Shore, 1994). One of the disadvantages of the method is that it does not comprehensively consider the diverse needs of autistic children, such as behaviour and social interaction.

We can include under this category, the auditory integration training which was developed by Guy Bernard in 1963. Such methods employ systematic desensitization or habitation of the child to a particular frequency of sound that has been causing the child stress. Such training is done through

a device called Audio Kinteron, in 20 half-hour listening sessions over 10 days (Bernard, 1993). Theoretically, the approach aims at decreasing the pain which the child receives from sound, thereby leading to better behaviour. This approach reports significant success for some autistic children (Rimland and Edelson, 1994), but not with others. There is still a need for systematic assessment of its efficacy and how or why it reduces hearing hypersensitivity for some individuals (Trevarthen et al, 1996). The author of this research, along with her autistic child, attended similar sessions in Leon, France and met other mothers who report no progress as well as no significant behaviour change.

Physical approaches: Many other techniques could be categorised under physical approaches or interventions to obtain closer effective engagement. The aim of these approaches is to reduce the resistance of the child when being physically engaged in any educational activity. This could be done in a variety of ways, such as the Doman-Delacato method, conditioned relaxation, the option model and massage. The Doman-Delacato method is a technique that aims at the development and organization of the nervous system. It is implemented through a series of exercises aimed at programming structured sensory stimulation (Delacato, 1974). The method led to substantive improvements in a few children. However, the treatment, as the American Academy of Pediatrics suggest, offers no special merit. Furthermore, with current evidence, such a method cannot be recommended as an alternative for educating autistic children (Trevarthen et al, 1996:122). Similar to the option institute approach, this technique addresses the power of hope and the parents' emotional needs. It helps parents to feel positive about their children and about their own role raising a disable child, a matter that most programmes have ignored (Hart, 1995).

Educational & training approaches: A third category could include all educational programmes that have been developed by specialised research centres, schools and societies. This includes programmes, such as Care, Camphill and Montessori programmes. Other programmes seek to normalize

the environmental stimulation and interaction that the children receive, as well as involving their parents through the education programme. Some of these programmes utilize in a combined approach both behavioural and cognitive-behavioural methods, such as Treatment and Education of Autistic and related Communications-handicapped Children (TEACCH).

Gillberg (1989a:3) suggests that TEACCH 'is probably the most widely copied model in the world for dealing with diagnostic treatment and follow-up issues relating to autism spectrum disorders'. This programme was established and supported by the State of North Carolina, USA. Its focus is on the development of appropriate communication skills and personal autonomy rather than the reduction of problem behaviour (Trevarthen et al, 1996). Their system is based on several pillars (Mesibov et al., 1983; Schopler et al., 1984; Schopler, 1989):

* **Improved Adaptation**: through the two strategies of improving skills by means of education and environmental modification to accommodate deficits.

* **Parent Collaboration**: parents work with professionals as co-therapists for their children so that techniques can be continued at home.

* **Assessment for Individualised Treatment**: unique educational programmes are designed for all individuals on the basis of regular ability assessments. Evaluation and treatment components are closely related to one another and are part of the same.

* **Structured Teaching**: it has been found that autistic children benefit more from a structured educational environment than from free approaches.

* **Skill Enhancement**: assessment identifies 'emerging' skills and work then focuses upon these. (This approach is also applied to staff and parent training).

* **Cognitive and Behaviour Therapy**: educational procedures are guided by theories of cognition and behaviour, suggesting that difficult behaviour may result from underlying problems in perception and understanding.

* **Generalist Training**: professionals in the TEACCH system are trained as generalists who understand the whole child, and do not specialise as psychologists, speech therapists, etc.

A significant component which has relevance to our proposed programme is treating parents as co-therapists. Studies show that such a model leads to positive changes in parents' overall teaching effectiveness as well as the development of their children's potential (Marcus et al, 1978; Schopler et al, 1982). The aim of the TEACCH programme is to focus primarily on the need of the child and family rather than on the needs of various professional disciplines (Schopler et al, 1984b). Another value the programme adds is the highly effective material developed to aid in assessment, as well as a continuous training programme and teaching materials.

One challenge with the TEACCH programme is that it requires intense involvement of the mother and other members of the family, including working as an assistant teacher (Schopler et al, 1984). This may not always be feasible in Kuwait and in oil rich countries. Nevertheless, a minimum acceptable amount of involvement, such as attendance at a monthly meeting, will be expected from parents and will be implemented in the suggested programme.

Similar to TEACCH, the Groden Center programme in the USA emphasises a comprehensive service spectrum within three major perspectives: developmental, behavioural and ecological. The programme also stresses research into the development of more effective methods of educating children with autism (Groden and Baron, 1991).

Another significant approach within this category is the Daily Life Therapy implemented by the Higashi School in Japan. This technique (Kitahara, 1983) was promoted by the late Dr. Kiyo Kitahara, the founder of the Higashi School. It emphasises rigorous physical activities as well as the development of special talents, such as music, craft and arts, through group education (Roland et al,

1987). Through this technique, the autistic child will be able to develop concentration, better communication and social skills. The curricular activities are group-oriented and highly structured, with an emphasis on learning transmitted from child to child through imitation.

Such an approach claims to be successful in Japan at all levels of autism. However, the observation of the researcher while working as a teacher for six months in a Higashi school in Boston, USA in 1987-88, indicates that the improvement in the American version was not to the level of expectation of the Higashi school. This may indicate the impact of cultural differences on the effectiveness of such an approach, a matter which is usually ignored. Furthermore, the approach was more beneficial to high-functioning children and those who have speech. In addition, this approach has limited integration activities compared to others, while most parents lived outside the USA, a fact which prevented parent involvement (Trevarthen et al., 1996). Nevertheless, the approach was able to reduce the severe behaviour of most of the autistic children. It was also able to develop the self-esteem of autistic children and at the same time was effective on high-functioning children in comparison to their medium and low-functioning peers.

One of the main activities of this approach is an annual celebration where all the children gather in the main hall. Parents and others attached to the school are invited to watch drama, musical activities and physical recreational exercises performed by autistic children alongside other normal children. This creates a sense of confidence in the children and motivates them even further. One of the requirements of the approach is to have a dedicated and energetic staff. In the first year of its establishment, many American teachers were exhausted and consequently a high staff turnover was noticed due to the pressure demand on the teachers themselves to apply this approach.

Communication Aids: Another group of approaches bases its techniques on the notion that, through different aids and tools, communication with autistic children can be achieved in a way that has been previously impossible as a result of neurophysical and emotional challenges. Such approaches include speech and language therapy, music therapy, movement communication and facilitated communication. Facilitated communication (FC) requires careful assessment due to its usefulness and popularity. The approach aims to achieve independent use - by the child - of communication aid(s) through the most appropriate forms (Bilken, 1990). The instructor assists the child to communicate by guiding the child's finger, hand or wrist on a communication board or computer. This technique, due to its flexible response to the individual's needs and abilities, has been effective in enabling many children to read and spell (Bilken, 1992; Spake, 1992).

The FC approach has also been criticized by many professionals (Cummins and Prior, 1992; Schopler, 1992). Such criticism focuses on the fact that advocates of FC claim that it requires faith and a trusting relationship in order to be effective and that any research may be inappropriate because it interferes with this trusting relationship. Claims of the effectiveness of FC are not universal. Criticism has also centered on the role of the facilitator. The authenticity of the FC message has been called into question and the facilitator, not the child, said to be responsible for the communication. The approach has been challenged in a court of law by parents and professionals who claim to have been injured by false allegations of child abuse via FC. The approach may be useful for some children who are obsessed with computers and similar technologies. Nevertheless, no clear evidence is yet available to reach an objective evaluation of the method. Green (1993) compiled 26 controlled studies of FC totalling 218 subjects. Among these, only two studies with four subjects offer evidence of the development of communicative skill, via FC, in the non-speaking handicapped population.

Lastly, we can group under one category several approaches which

focus on the relationship between the child and the members of his family, mainly his mother. These include Welch Holding therapy and psychotherapeutic techniques, developed by the Tavistock Clinic in England. Welch Holding therapy, initiated by Dr. Welch in the late 1970s, evolved from the notion that children with autistic behaviour are torn between the desire to communicate and seek comfort from others and the simultaneous desire to avoid interaction. Under this technique, parents are requested to hold their children and to use positive effective expressions with eye contact, thus comforting their child and reducing his premature independence. As a result, it is claimed the child will communicate better and will be more cooperative; sometimes, children have lost their autistic symptoms (Zappella et al, 1991; Welch, 1989; Tinbergen and Tinbergen, 1983). Experiences show that families need training and support to achieve and sustain effective holding (Welch, 1989).

There are controversial indications about the effectiveness of holding therapy. In one study (Zappella et al, 1991), findings indicate rapid improvement in two persons who had been treated. However, Wimbory and Cochrane (1991) cast doubt on the effectiveness of such treatment because studies about the successfulness of holding therapy included children with mixed diagnosis, did not use control groups and/or lacked baseline periods for comparison.

Though bewildering, the diversity of educational programmes available is quite advantageous to the autistic child. This is because autistic children are themselves so varied. The challenge, however, is to identify which approaches are most likely to benefit a particular individual. This could be done by addressing the underlying causes of the condition.

The review of such teaching methods and education strategies as well as literature survey highlights the major requirements of any effective educational programme. These include:

A. Educational Components

1) Early intervention using a highly structured skill-oriented educational programme.

2) The programme should be designed to meet the specific needs of the individual which, as Rutter (1985) points out, may well vary according to the autistic child's age and developmental level.

3) Individualized education programmes tailored to the needs of the child should be part and parcel of the programme.

4) Children should be taught to respond to complex multiple cues and the utilization of alternative systems of communication, including sign-to-spoken language, pictorial language and written language.

5) Effective classroom management is essential in order to meet the diverse educational needs of the students.

6) Any treatment plan should include educational and behavioural approaches (Gillberg, 1989a), focusing on a few effective approaches, such as behaviour management.

7) Children should be motivated to attempt difficult social and academic tasks.

B. The educational environment includes five major components

1) Teaching should be structured and organized with intensive one-to-one interaction. In addition, support services such as speech or physical therapy are essential for the effectiveness of the programme.

2) To serve well the wide variety of individual needs requires for continuum of services and concerted efforts among all interested in the welfare of the child including parents, educators and support-service providers.

3) Educational programmes should aim at involving parents actively in the education of their child as well as addressing the needs of the family. The role of parents and family is essential in the child's development.

Parents need both advice and respite care. They should be involved in parent-training, consultation and parent support groups.

4) Interaction and exposure to the community are important for the child's development, including a focus on functional living skills, such as appropriate use of facilities, personal hygiene, care and maintenance of living quarters, cooking, etc.

5) Non-academic activities, such as physical education, craft and music should be an integral part of any programme.

C. The effectiveness of the programme will be enhanced with the following components:

1) Early diagnosis is needed to allow appropriate intervention as early as possible.

2) Normalization should be established in the child's life through gradual mainstreaming/integration and community life and interaction should be conducted in a natural environment.

3) Many programmes emphasise independent and vocational skills to prepare the individual for a more complete and independent life. Such emphasis deviates from the social culture in Kuwait as well as other oil rich countries with which this study is concerned, where less emphasis is placed on independence.

4) Comprehensive training and development of teachers and staff is needed to enable them to implement the programme.

5) The child and the programme should be the subject of continuous evaluation.

Many areas of concern relevant to secondary-level education or teaching adolescents have not been considered in this research. The sexual/social skills which are given first priority by some researchers (Bud Fredericks et al, 1983), are less important in Kuwait and other oil rich countries due to conservative social values and practice. In addition, the programme will focus on young children rather than adults who may need to be taught such skills.

3.5 <u>The Family and Autism</u>

The family role in the treatment of autistic children is vital for the programme's effectiveness. In addition, families can help in establishing support groups or community-based programmes that will be needed for the enhancement of their children's education (Haracopos, 1989). Due to the importance of such a role, many recent approaches and studies have emphasised the value of involving families in the education of their autistic children.

Cantwell and Baker (1984) divided family studies with autistic children into four main areas:

(1) the family as an environmental aetiologic agent,

(2) family and genetic aspects of autism,

(3) the impact of autistic children on the family, and

(4) the role of the family on the development of the child.

In this section, we will deal with the last two areas, since the first two areas were covered earlier in the chapter.

Many families of autistic children are under stress and the adverse effects of this on their children may be considerable (Schopler and Mesibov, 1984). Autistic children are more stressful for families than children with other types of handicap. It is suggested that a characteristic pattern of stress is associated with parenting an autistic child (Bristol and Schopler, 1983). Both the severity and the duration of such handicap lead to such anxiety. Furthermore, most parents find themselves submitting to their child's demands to avoid stress, creating in the process a bizarre family life (Holmes and Carr, 1991). Some of these problems are practical while others are emotional. Though parents of autistic children share similar problems to those of parents with handicapped children, they face in addition others which are peculiar to autism (Wing, 1986).

Mothers of autistic children have been reported to experience significantly high levels of stress (R.L. Koegel et al, 1992). Studies by Bouma and Schweitzer (1990) noted that such mothers must cope with additional stress linked to the social isolation and stigma associated with the psychological disorders of their children. Such mothers scored significantly higher than mothers of other disabled groups on the amount of overall stress. Bristol (1984), has outlined factors that make autism stressful to the family. These include ambiguity, severity, the long duration of the disabilities due to the child's permanent dependence and the social reaction of others to the behaviour of the child. These factors are aggravated in the case of Kuwait due to lack of social awareness about autism and the prevailing social tendency to hide any form of mental or developmental handicap. The lack of educational provision and negative social attitudes have caused confusion for both the parents and the professionals involved in caring for such individuals. Hence, the need to reduce parent stress is recognized as a common need by many families of autistic children.

As the child gets older, the family suffers greater stress for many reasons, including parental realization of the permanency of autism and the increase in self-sacrifice expected from the parents. Autistic children are more stressful for families in Kuwait and other oil rich countries than in industrialised countries for a number of reasons, including lack of adequate services, absence of social support and absence of adequate social awareness about autism. The sources of stress for families who raise an autistic child originate from four areas:

(1) inconsistent intellectual development,
(2) bizarre or disruptive behaviour (Moes, 1995),
(3) the inability of the child to function independently, and
(4) lack of acceptance in the community (R.L. Koegel et al, 1992).

It is essential for the family to reduce the stress, to find remedies or answers to their problems.

Concerning the family, it has been found that mothers tend to feel more stigmatized than fathers about the behaviour of their children. As such, most of the early studies focused predominantly on the impact on the mother of raising an autistic child (Bristol and Schopler, 1983; DeMyers and Goldberg, 1983). This may be attributed to the impact of the psychogenetic theory advocated by Bettelheim, which relates autism to the emotional coldness of the mother. In addition, it may be due to the fact that the mother's energies are consumed in providing for the physical welfare of the child.

Later, the research focus shifted to examine the impact on both mother and father (Moes, 1995). Parents of autistic children are usually very frustrated because of the uniquely stigmatized aspects of autism. The discrepancy between the child's normal appearance and his bizarre behaviour leads outsiders to question the parents' competence. As a consequence of this stigmatization, Gray (1993) indicates that many parents tend to isolate themselves and their families from social contact, with the social life of those families usually maintained by and restricted to their extended family and a few close friends.

In addition, fathers tend to be more concerned with the long-term financial responsibilities of their child (Rodrigue et al, 1992). Though such financial concern is modest in the countries under consideration, thanks to substantial government subsidies, it continues, nevertheless, to be a major concern to any parent. Such challenges facing the family of an autistic child deserve comprehensive remedies within the programme formulation.

Bristol (1984) found that the keys to coping with an autistic child include a supportive home environment, being able to express feelings openly and participating actively in activities outside the home. Friedrich and colleagues (1988), in a study about mothers of mentally handicapped individuals, found that those who felt in control and/or were religious (attended places of worship) were more able to cope with stressful situations.

Most parents have concerns over the effect of the autistic child on their other children. It is assumed that siblings of children with a disability may receive less parental attention and that they are more burdened with the responsibility of custodial care (Lobato, 1983). Under this assumption, the sibling may have stress-related problems, more exposure to psychological difficulties, more restrictions and fewer privileges. However, studies indicate inconsistent and contradictory findings about the impact of autistic children on their brothers or sisters (Wing, 1986). Some show positive effects, others negative (McHale et al, 1984). Obviously, however, siblings are faced with special problems, which need to be addressed in the formulation of the programme.

In response to the emotional and educational needs that families undergo, education and training is required to provide parents with efficient techniques to teach their children and reduce their disruptive behaviour.

Since the parents and families of autistic children are under severe stress for long periods, the focus of the programme will be on both the child and the family. In addition, there is a need to successfully adapt to that stress. Such successful adaption is found to be closely related to the degree of cohesion, expressiveness and active recreational orientation of the families (Bristol, 1984). Furthermore, the degree of development of the child will depend on the way parents perceive his/her ability and readiness to be cooperative with specialists and the level of their contribution, mentally and emotionally (Trevarthen et al, 1996).

3.6 Data and Empirical Research About Autism in Kuwait

Few studies are available about autism in Kuwait. In this section, however, we attempt to summarise the major findings of those studies relevant to this research.

A study done by English, Kuwaiti and U.S. researchers using new brain-imaging technology, high-resolution brain signals, photo emissions, tomography or SPECT found that there is decreased blood flow in the brain of the autistic subject (George et al, 1992).

In his study about assisting Kuwait efforts in caring for autism, Ashkanani (1995) indicates that the provision for autism in the country is limited and fragmented compared to the UK and USA. There is relatively little public awareness of the condition and little information is available to interested people. He suggests that legislation is needed to protect the rights of disabled people as well as systematic procedures for diagnosis and referral of those with special needs.

Another study was conducted by the Ministry of Public Health (MPH) to assess the different levels of disabilities which exist in Kuwait (MPH, 1996). The study shows that autistic children represent 2.5 per cent of total disabilities that have been diagnosed by the medical development unit in MPH. It reports that 123 cases of autism have been diagnosed, 100 of them male and 23 female, the majority of them Kuwaitis. However, the author believes that the true number of cases may be more. One problem in assessing the prevalence of the condition is the negative social attitudes toward such handicaps, so that families tend to hide them. A second factor is the delay or neglect of diagnosis which is still a common phenomenon in oil rich countries. The MPH study reveals that the rate of autism, which is three per 10,000, is similar to that in some other countries but lower than the international rate. It also reveals that autism is about four and a half times more prevalent among males than among females, similar to the prevailing rate in other countries. The study suggests the need for more supportive services and specialists to help the disabled children and their families, especially speech therapists, with the start of such therapy at the age of two years. It suggests the need for an intensive educational programme which specializes in the needs of autistic children, slow learners and children with learning difficulties, a gap the suggested programme

may fill.

3.7 Conclusion

The chapter reviewed the relevant literature to the focus of this research, which are the design, implementation and evaluation of an educational programme for children with autism seen as a developmental disorder. This review of the literature reveals the complexity of the condition's syndrome. It highlights some increasingly recognised aspects of autism. Autism is one of the behaviourally defined developmental disorders of brain function. Although its exact causes and its genetic or non-genetic aetiologies are not yet fully known, some facts are evident. Most agree that it is caused by abnormal brain development that begins before birth and surfaces at the end of infancy. The profile of parents and the manner in which they raise their children or interact with them is not generally thought to be a major cause. Autism encompasses children with a broad range of handicap, accompanied by bizarre behaviour, which necessitates extensive educational intervention. Research reviewed emphasises the complex inter-dependence of cognitive deficit, social difficulties and language and communication problems. The core symptom is, however, the social-communication relationships.

The elusive aetiology, the lack of adherence to treatment and diverse behaviour of autistic individuals have attracted increasing attention from researchers. Two research trends were considered: first, the focus on behavioural approaches in the learning of autistic children, which seems promising; second, a focus on cognitive processing, such as language, social and related learning.

Current trends in treatment include behavioural, cognitive-development, medical and dietary approaches. There is an increasing acceptance of the physiological basis for the syndrome, with several physical and/or genetic bases. In addition, the review emphasises the importance of distinguishing autism from other forms of retardation or mental disorder, since inaccurate

diagnosis may result in referral to inappropriate treatment techniques.

In this review, we have attempted to give a brief overview of several approaches and a slightly more detailed account of two others, the educational and behavioural ones, as these will be the basis of our proposed programme.

Today there is a wealth of treatment approaches from which we can select. This means, however, that difficult decisions have to be made. Such a variety of educational approaches necessitates careful assessment of the strengths and weakness of each programme and the conditions under which it is effective. There have been a few well-established approaches for autistic children which have demonstrated substantial educational and behavioural progress as a result of teaching-treatment as well as parent involvement. The analysis highlights that there is no one way; we must use all available approaches that will work for the diverse needs of autistic individuals under different conditions. In addition, the review of the programmes indicates that in order to reach a child's maximum potential, a coordinated effort is needed among educators, parents and involved professionals. If all the variables were taken into consideration in a comprehensive intervention programme, a significant long-term developmental improvement could take place. The major factors within the context of both countries include an individualized educational plan, early intervention, the motivation of the child to learn, focus on behaviour management, parent participation, full coordination among those concerned, gradual mainstreaming and community inclusion.

Involvement of the parents and other members of the family is seen as vital component for the effectiveness of any programme and the development of the child. Parents are regarded as co-therapists and co-partners. The severity of autism necessitates that due attention be given to its adverse effects on the family and to the needs of other family members. In addition, it highlights the importance of family education and awareness as an effective approach to improvements in the life of the child and the family. Furthermore,

it emphasises the importance of focusing on the pivotal behaviour which is obstructing family's welfare and stability and on relevant intervention to reduce such behaviour.

The scarcity of literature on autism in Kuwait reflects the huge need for better understanding of the syndrome through education, research and public awareness. The variability of behaviour within the affected population, lack of validated assessment tools, low levels of awareness, lack of research centres and funds have contributed to the lack of research information found on both countries.

The behaviour of autistic children is of primary concern because it represents one of the main challenges associated with this disorder and the major obstacle to successful community life. Behaviour that has to be considered includes aggression, self-help skills such as toilet use, resistance to change, bizarre behaviour and ritual movements. Much behaviour obstructs effective teaching, such as the inability to sit still or the inadequate response to audio-visual stimuli. This behaviour and the obstacles to effective education will be the basis of a questionnaire survey which will be administered to parents to assess their perception of such needs.

Autism represents a set of interrelated deficiencies with inappropriate behaviour, ritualistic movements and lack of communication that often results in educational, behavioural, social and family challenges, most of which will continue to adulthood. As demonstrated in the next chapter, accurate diagnosis and assessment, as well as early intervention, are essential to maximize the individual abilities of autistic children.

CHAPTER FOUR:
REVIEW OF THE CURRENT FACILITIES AND ENVIRONMENT

INTRODUCTION

The previous chapter summarized the characteristics of autism as well as its symptoms, and the different educational and non-educational approaches that are currently implemented around the globe, in our knowledge, were discussed. The complexity of the syndrome as well as its severity necessitate comprehensive and concerted efforts in the form of a plan or programme to enhance the life of the autistic child. Such efforts will improve the child's behaviour, but they will not alleviate the autistic condition totally. To formulate an adequate programme, it is necessary to evaluate the facilities currently available in both countries under discussion. In order to have such comprehensive evaluation, the following must be addressed:

1) What is the level of official awareness and receptivity as indicated by a legal mandate or law that regulates the provision of services for handicapped children?

2) What capacity and services are available for diagnosis and assessment?

3) What are the levels of special education functions and services?

4) What educational facilities are currently available for children with autism?

5) What is the justification for an educational programme and for early intervention?

6) What manpower and teacher characteristics are available to achieve the desired objectives of the proposed programme, if it were to be established?

7) What financial resources and practical means are available that could positively support the programme?

8) What facilities and support services are available?

9) What are the needs that the programme should address?

The assessment of the first eight areas will be the subject of this chapter, while Chapter 5 will be devoted entirely to identifying the different needs of autistic children from the parents' perspective.

This chapter begins by evaluating the adequacy of the current legal mandate as well as the availability of competent diagnosis and assessment in Kuwait and Saudi Arabia. Evidence will be produced to suggest that diagnosis and assessment are currently inadequate and the chapter will discuss the need for improvement. In addition, the chapter evaluates the special education services and functions. Later, an assessment of the current available facilities for autistic children will be presented. Special attention will be given to both government and non-government organizations which provide such services. The need for the educational programme and early intervention will be discussed later in the chapter, which concludes by evaluating the availability of the manpower and the profiles of teachers, financial resources and supporting services and facilities.

4.1 The Legislative Perspective

In many countries, such as the UK and the USA, developmentally disabled individuals are entitled by law or by judicial mandate to live in a community setting and to be provided with the necessary services to enhance their life and development. These services include academic as well as non-academic support, in addition to family support services.

In the USA, the Education for All Handicapped Act of 1975 (IDEA, PL 94-142) and the Individuals with Disabilities Education Act of 1990 (IDEA, PL101-476) ensure the provision of adequate education for special-needs children in a regular education classroom. Under this law, the right of people with

disabilities to have access to and to participate in the integrated public school environment is ensured through the 'least-restrictive environment' (LRE) provision. The LRE within such a law has affirmed the right of all handicapped children to be fully involved in the life of the community. The PL 94-142 has increased parent involvement through informed consent (Shriver and Kramer, 1993). This means that parents give consent to changes in their child's educational programme and are present during placement-team meetings. Later PL 101-476 was amended in 1991 by the Individuals with Disabilities Education Amendment (PL 102-119). This amendment mandates parental involvement in the development of an individualized education programme (IEP) for children with disabilities. In addition, it mandates that the actual services required by the child must be spelled out in the IEP.

In the U.K., interest in special education was intensified by the Warnock Report (DES, 1978). The report enhanced the educational provision for autistic children (Pou, 1994). While focusing more on questions of 'what' and 'when', the Warnock Report failed to address the issue of 'how': how teachers teach and how pupils learn (Visser, 1993). The report led directly to the enacting of the 1981 Education Act and eventually to the Education Reform Act of 1988 (Warnock, 1993). The Education Act (1988) has afforded the opportunity to re-address the whole basis of school-family relationships. The 1989 Children's Act, which came into force in October 1991, mandates that provision of services should be met by the local authority as a whole and not just the LEA. This act emphasised the requirement to provide the necessary education and services for each child with a special need. The provision of such services is required by the law to be met by local educational authorities (LEA) either by enrolling the child in a special education facility or by providing him or her with support staff in a mainstream school. Furthermore, a code of practice in special education needs was issued (DFE, 1994) which focuses on the identification and assessment of special educational needs. It is expected that schools will work according to this document in establishing and developing policies and practices for educating individuals with special needs.

The 1981 Act encouraged the view that SEN pupils should be educated in mainstream schools whenever possible. Section 7 of the 1981 act provided that special needs pupils should have a statement of their needs, and the LEA was made responsible for meeting these under the 1981 act. The statement was used by school heads to negotiate for additional resources (Bowers, 1993). The Dearing Report (1993) has recommended that the national curriculum should be available to all children with special educational needs. Overall, these various acts and reports can be seen as reflecting more positive official attitudes toward those with learning disabilities in the U.K. (Moon, 1996).

Although the legal frameworks are rather different, both the U.S.A. and the U.K. emphasise the integration of disabled children with their family and the community. Both countries also advocate the provision of necessary services, including educational services by law or legislation and not by executive order, and encourage increased parental involvement in the welfare of their child through IEP or statement of needs. Moreover, in both countries, more positive public attitudes toward individuals with learning disabilities have developed over time. It could still be argued, however, that both countries need further elaboration on how teachers teach and how children learn.

Neither in Kuwait (until August, 1996) nor in Saudi Arabia has any legislation been enacted concerning individuals with autism in particular or disabled persons in general. There are, however, many executive orders under which disabled individuals are receiving basic services and education, but there is no clear mandate or status for the provision of such services, and no clear mandate for adequate diagnosis and assessment. The lack of such a mandate has led to the provision of inadequate services. This raises the need to enact comprehensive legislation in both countries, to enhance the level of the services provided to autistic children (Ashkanani, 1995). Such legislation, when enacted, will upgrade the currently inadequate provisions, where services are provided mainly by non-government agencies which lack the sufficient funding and necessary means to provide sustainable adequate services.

Models for such legislation could be drawn from both the UK and the USA where, due to better informed public and adequate legislation, autism was included in the Developmental Disabilities Act, where Law 94-142 mandated public school education for all handicapped children including those with autism. The Congress also passed the Americans with Disabilities Act of 1990 (ADA), which forbids discrimination against the 43 million Americans who live with disabilities. Bishop and Augustus (1993) cited five factors for efficient implementation of ADA;

(i)   participation of beneficiaries in order to exert pressure on implementing agencies,

(ii)   clarity of policy goals,

(iii)   specificity of compliance standards,

(iv)   unambiguously designed enforcement agents, and

(v)   institutionalization of compliance procedures.

Though such factors are effective within the context of the USA, they are also essential factors which could be taken into account in enhancing the impact of the proposed legislation in Kuwait as well as Saudi Arabia. To make the legislation even more effective, necessary resources should be allocated and a mechanism for coordination and follow-up should be designated.

In Kuwait, the newly passed Law no.49/1996, which was approved in August 1996, has focused mainly on establishing the rights of disabled individuals. However, the law falls short of providing full rights and appropriate services to the disabled, especially the rights of adequate early intervention and appropriate education. Nevertheless, for the first time, the law guaranteed the provision of appropriate living arrangements which are compatible with the individual's disabilities as well as the provision of vocational and residential facilities. Furthermore, the law recognised the financial burden on the families

of disabled child and provided an increase of 50% over the existing social allowance for each disabled child. The law also exempted all the tools and equipment needed for disabled individuals from all taxes and custom duties. The law also allows any disabled person to retire after 15 or 10 years of service, for males and females respectively, while emphasising the importance of employing disabled persons. Any enterprise which employs 50 or more Kuwaitis, should employ not less than 2% of its workforce from the handicapped population.

The enaction of this law is an advanced step within the context of Kuwaiti society, since it has established the rights of disabled persons to access the necessary services as well as providing employment opportunities. However, the law still does not address many prominent issues for handicapped individuals. First of all, it does not address the educational needs of disabled individuals, which are even more essential than the vocational and employment services that were addressed. It makes no reference to the provision of educational services for the disabled. The legislators may have thought that providing special housing and employment were the most urgent needs of the handicapped. Second, the law does not provide any motivation or incentive for parents or NGOs to be engaged in the welfare of the child and influence his or her development within the law. Parents are not involved in the development of their children through IEPs or any other procedure. NGOs are not adequately supported, financially or otherwise, to provide services to these children. Third, the law does not indicate who will be responsible for the provision of the needed services. Though it does not classify disabilities, it has institutionalised a procedure for such classification which may necessitate indirect diagnosing the child.

The lack of relevant legislation in Kuwait until recently and in Saudi Arabia could be attributed to many factors. First and most important is the lack of public awareness about disability in general and autism in particular, as discussed in Chapter 2. The mass public support needed to enact such

legislation is, therefore absent. Second, no interest groups or semi-interest groups have been established to defend and advocate the needs of autistic children, such as parents' groups, specialised NGOs and control agencies. Usually, parents' groups have tremendous impact in putting the needs of their children before the responsible authorities (Wing, 1986). Third, some governmental agencies believe that the small number of children affected by the autistic syndrome and its complexity do not warrant mass intervention by the government. It is not clear if such an assumption is based on hard facts or is an exercise in avoidance. The understanding of these factors will hopefully direct the desired efforts of the programme toward effective enaction of such legislation.

4.2 Diagnosing and Assessment

The enaction of many laws in many developed countries which support the provision of adequate services led to the flourishing of diagnostic and assessment services. Many educational plans mandated by law require the diagnosis of the child's characteristics and the assessment of his or her needs. For example, to be eligible under the Individuals with Disabilities Education Act (IDEA, PL 104-476), a child must undergo an evaluation and be found to be in need of such special services. However, such diagnosis is not required in Saudi Arabia or Kuwait, due to the lack of necessary legislation. Nevertheless, the legislation enacted in Kuwait in August 1996 requires that parents obtain a clear diagnostic report in order to be eligible for any increase in social allowances, but such diagnosis is not required for the most crucial element, which is the educational service. For example, the father of an autistic child in the non-government sector is not obliged to obtain a diagnosis for his child, since he is not eligible for any social allowance. This suggests that social attitudes, including those of parents, may still need to be changed if good diagnostic practices are to be promoted.

An early diagnosis of autism has many advantages. In addition to early education intervention which can prove to be most effective when the child is

young, it enables those concerned with the welfare of the child, including parents, to form realistic expectations regarding his/her development. It constitutes an impetus to design the best potential educational programme for the child as well as articulating the services needed for the child and the family. Early diagnosis will reduce the ambiguity surrounding the child's handicap and reduce the parents' frustration. Nevertheless, studies show that autistic children often do not receive initial evaluation before the age of two years and do not receive a diagnosis of autism until they reach four and half years of age (Siegel et al, 1988).

With limited diagnostic capacity in both countries, it is expected that many cases of autism will not be detected until children are more than six years old. On the one hand, this puts a burden on any proposed programme for autistic children to intensify its efforts to increase public awareness of the condition. On the other hand, it may imply that the proposed programme should have its own diagnostic services due to the weak public capacity for diagnosis.

Kanner viewed social disorder as the key characteristic of autism. Rutter (1978) identified impairment in social relationships, language development and insistence on sameness as the key features. The differences in the characteristics of major feature(s) and the nature of autistic behaviour make diagnosing difficult. Autism is a behavioural syndrome, consisting of a cluster of abnormal types of basic behaviour. One of the difficulties of diagnosis is that the condition represents what Wing (1992:7) called an 'autistic continuum' and unless the diagnosticians are fully aware of the different kinds of impairment they may be confused in their diagnosis.

Though autism is recognized clinically, there is considerable debate over the most effective diagnostic criteria (Aitken, 1991). Currently the trend is to take the core impairment characteristics identified by DSM-III-R and DSM-IV as the basis of any diagnosis (Rutter and Schopler, 1987; DSM-IV, 1994). The

American Psychiatric Association's (DSM-IV) fourth edition of the diagnostic and statistical manual of mental disorders is used not only for autistic children, but also to identify most disorders, both mental and emotional.

Wing (1992) suggests that diagnosis should distinguish between essential features of autism and variable features, which are common but not essential to the condition. The central features, as suggested by Wing (1992:8-10), are impairment in each of the following areas: social interaction, social communication and imagination, together with repetitive stereotypical activities; examples of variable features are language problems and inappropriate emotional reaction.

What complicates the diagnosis is that it is possible for an autistic-like pattern to appear where one or many features of autism is missing. Autistic disorder falls in the category of pervasive developmental disorder (PDD) along with other such disorders: Rett's disorder, childhood disintegrative disorder, Asperger's disorder and pervasive developmental disorder not otherwise classified (DSM-IV, 1994). Wing (1993:71) argued that 'the real problems for any system of diagnosis is the lack of any clear boundaries between classic autism, whichever of the existing definitions is used, and the rest of the autistic spectrum'. Baron-Cohen and Bolton (1993:17) quoted eight conditions with similarities to autism. This puts a burden on the diagnoses to meet all the criteria for autism. When not all the criteria are met because of late age of onset or atypical symptomatology, it is advisable to classify them as other PDD.

The diagnosis of autism will be valid only if the clusters of basic behaviour is evident. However, if the child has problems in social interaction or communication or imagination, it does not signify a distinct pattern of autism, unless all three occur together. This is important since during my teaching and research assignments, I observed that diagnosis of autism in both countries is applied so loosely that it has practically lost its validity. This is due partly to the ignorance of the basic characteristics advocated by Kanner, but also to the

inevitable subjectivity that goes with the diagnostic process. In the diagnostic process, there is a need for the diagnostician to exercise great care in deciding whether the child is not one whose behaviour is a reaction to stress as a result of a primary dysfunction such as deafness or other disability (Furneaux and Roberts, 1977). Furthermore, the diagnosis should be seen as a continuous process with careful observation (Wall, 1979) rather than a one short exercise.

In the professional area, many tests have been developed to diagnose autistic children. The Merrill-Palmer Scale is a useful one because a total score can be obtained without using verbal items. This is critical since most autistic children have relatively low verbal functioning (Groden and Mann, 1991). The age range it covers does not, however, exceed that of young primary school children. Furthermore, some tests such as the Wechsler Intelligence Scale for Children-Revised (WICS-R) (Groden and Mann, 1991) are appropriate only for high-functioning autistic children.

Furneaux and Roberts (1977:17) emphasise the need for future studies in order to abandon the use of intelligence tests altogether. Schuler and Goretz (1981) suggest greater interest in assessment of social, linguistic and adaptive behaviour than in traditional overall intelligence levels. This is because some autistic children have specific skills which are referred to as islets of intelligence. They have special skills (Savant abilities), such as unusual drawing or musical talents. Unless the examiners are highly experienced, the result will not be meaningful. Furneaux and Roberts suggest, instead, measuring a child's performance against his or her previous level of achievement in specific tasks which, in their judgement, are more relevant for a child (1977:17).

In an effort to quantify objectively their intervention, researchers into autism and clinicians have developed a variety of forms, checklists and tests. Some of these tests are simple and could be completed by parents or teachers while others are complex, and are typically designed to measure a variety of autistic symptoms.

Several scales and checklists for psychological or behavioural assessment of autistic children and measuring their progress were introduced. They include questionnaires and checklists, such as form E-2 (Rimland, 1964) (the Diagnostic checklist for behaviour-disturbed children), BRIAACC (Behaviour Rating Instrument for Autism and Atypical Children), BOS (Behaviour Observation Scale for Autism), ABC (Autism Behaviour Checklist) (Krug et al, 1980), CARS (Childhood Autism Rating Scale), (Schopler, Reichler and Renner, 1988) and many others (Phelps and Grabowski, 1991; Trevarthen et al, 1996). The most widely used scales are the CARS and ABC, because they are relatively simple and not time consuming (Schopler, Reichler and Renner, 1988; Gillberg, 1989a). On the one hand, when Volkmar et al (1988) compared ABC total scores of autistic and non-autistic adults with different mental problems, they concluded that ABC scale was useful as a screening instrument but should not be used as a primary diagnostic tool. The ABC scale consists of 57 items describing symptoms associated with autism. On the other hand, the CARS scale is found to be highly reliable and of good validity (Trevarthen et al, 1996). CARS is a 15-item behavioural-rating scale which can differentiate between the levels of autistic syndrome. As such, it is suggested that the programme may use CARS in cases where the diagnosis report submitted is not satisfactory.

CARS emphasises many characteristics of autistic children, mainly inappropriate use of objectives, disturbance in emotional response, difficulty in adapting to change, unusual fears, impediments in verbal and non-verbal communication and abnormal activity levels, which should be seen before 30 months of age. CARS includes criteria identified by both Kanner and the National Autism Society.

To provide accurate diagnosis for autistic children at the age of 18 months, Baron-Cohen and colleagues (1992) developed CHAT (Checklist for Autism in Toddlers). CHAT ask parents questions related to social interest, play, communication, pointing and imitation. The test is easy to conduct and is related more toward autistic children (Baron-Cohen et al, 1992).

Nevertheless, in all those tests, the popular clinical technique of interviewing parents is indispensable in conducting a thorough evaluation of a child. The important fact to bear in mind is that the earlier the child is diagnosed the better he will cope with the special education in which he will be enrolled.

Due to the limited diagnostic capacity in Kuwait, many who are autistic-like or have a similar syndromes may be diagnosed as autistic children. As such the programme will be selective by developing screening criteria which will admit only those individuals who are clearly diagnosed as autistic. Such criteria will be elaborated in Chapter Six. Another criterion for selection that will be considered is the severity of behaviour. Those individuals with extreme behaviour will not at this juncture be admitted to the programme due to the lack of staff experienced in dealing with aggressive behaviour. This exclusion will hopefully increase the chance of improvement for the other children.

As distinct from the objective of diagnosis, which is to identify the disability correctly, the objective of the assessments is to provide the educator with information about the suitability of the education and service provisions for each child's development, the effectiveness of teaching methods and the necessity for change (Hinton, 1993). Assessment is the foundation upon which all treatment and educational plans are built. It highlights necessary inputs for appropriate individualized services (Schopler et al, 1984). The treatment for individuals with autism requires a wider range of information than diagnostic classification provides. As a consequence, information obtained from assessment is crucial in formulating appropriate teaching strategies as well as developing individualized education.

As described by Drummond et al (1992:9), assessment is the process that must enhance the children's lives, their learning and their development. The objective of such assessment is to evaluate the difficulties such children encounter in the process of learning, their strengths and weaknesses and their development over a period of time (Wall, 1979). The recommendations from

such assessment could be prioritized and integrated to form the basis of an education plan for the child. Assessment could be based on information gained from direct observation, teachers' comments and parents' feedback (Schopler et al, 1984).

In the 1960s, most assessments were done according to the *Psychological Assessment of Mental and Physical Handicaps* (edited by P.J. Mittler). However, after the enaction of many education acts, such as the ones in the U.K. and USA, the government was required to provide adequate educational and social services to the handicapped. In order to fulfil such requirements, there is a need for a technical acceptance test for child assessment. Such assessment will determine the present status and competence of an individual and help in determining the type of intervention needed. This has led to the development of a whole range of instruments and tests. In deciding the appropriate tests, we have to appreciate that different types of tests have quite distinct functions, so it is essential to select that which is most suitable for the desired function and to be aware that it will have limitations in assessing other functions.

Hogg and Raynes (1987) have suggested four classes of approaches to assessing people who were mentally handicapped, as follows:
(a) norm-referenced,
(b) assessment of adapted behaviour,
(c) criterion-referenced, and
(d) techniques of behavioural observations.

Norm-referenced tests include psychometric norm reference tests which try to measure global measures of intelligence, such as Intelligence Quotient (IQ). They emphasise measuring the individual's mental functioning and change over time in relation to others. Norm-referenced developmental tests are similar to the psychometric procedures, but they arrive at a Development Quotient (DQ). Like IQ tests, they aim at arriving at a global score; however, they emphasise certain areas, such as language development (Berger and Yale,

1987). Both types of test have limitations in directing educationalists on how to address the needs of individual children. The tests for assessing adaptive behaviour focus on measuring social competence and its assessment. These tests do not emphasise mental handicap in terms of intellectual deficiency, but assess diminished adaptive competence in everyday living, such as self-feeding and personal hygiene. Adaptive-behaviour measures should not be seen as substitutes for psychometric procedures as their functions differ and in most cases there is a need to employ both together (Raynes, 1987). An advantage of adaptive-behaviour tests is that they have directed our attention to the environmental context of the child (Leudar and Fraser, 1987) and its critical impact on the child's development.

Criterion-referenced tests emphasise the procedures in which items represent achievement in the individual's adjustment to his environment which, in most cases, reflect the outcome of teaching or training (Kiernan, 1987:158). As White (1977:334) indicates, 'criterion-referenced assessment is one in which the child's performance is compared against the level of performance required to be successful in a task. Unlike norm-referenced assessment, in criterion-referenced assessment all children could presumably fail to reach a criterion or all children could pass'. This test will direct educationalists' attention directly to specific behaviour that becomes the target of the training and educational objectives. In contrast to norm-referenced assessment, criterion-referenced assessment is not concerned with comparing individuals but the sequence of items that are functionally related. Lastly, the techniques of behaviour observation emphasise the behaviour change and development over time. This means that the teacher has to monitor behaviour in the everyday setting. The behaviour-observation approach is concerned with specific behaviour rather than global functions, with the person as a part of an ecological system rather than as a self-contained individual (Hogg and Raynes, 1987:9).

One difficulty in the assessment of autistic children is that part of the assessment must take place at a clinic. This is important because assessment

often involves a variety of specialist investigations, such as intelligence and language testing, medical and neurological examinations which could be considered only in a clinical setting. The clinic also provides a 'standardized' context for observing the nature of the child's difficulties. Nevertheless the clinic-based assessment is only one part of the whole assessment. Observing the child at home and at the school during play, and in situations in which natural communication and social interactions are expected, are complementary parts of the clinic assessment. Such assessment usually involves a team made up of a child psychiatrist, a clinical or educational psychologist and a psychiatric social worker, who observe the child's behaviour, record their reactions and discuss their findings.

Any effective educational programme is dependent on the process of assessment, interaction and reassessment. A thorough initial assessment provides a detailed profile of a child's abilities in all areas, while periodic reassessment provides a concrete measure of progress. One of the effective tests in the assessment of autistic children is the PEP (Psycho Educational Profile) (Schopler, Reichler and Renner, 1988). The advantage of PEP is that it could be standardized for a summary-score quotient that would be translated directly into a teaching programme. The programme will use this test for assessment because it is also simple and not time consuming, and most of its items are not dependent on language skills.

The family and teachers are important sources of information about the child at the diagnosis and assessment stages. They may sometimes challenge the assessment or contribute toward its enhancement. They see responses at home that the specialist could not observe (e.g. in the bathroom). The involvement of the teacher as well as the parents cannot be overemphasised in the diagnostic process (Groden & Mann, 1991; Wolfendale, 1993). A study by Stone and Lemanek (1990) shows that parents are capable of reporting the social behaviour of their autistic child. They can, in addition, contribute in recognizing both normal and abnormal child development (Baron-Cohen and

Bolton, 1993:15). This anecdotal information should be solicited from the parents, who should be encouraged to make it available (Hart, 1995).

Having a good assessment is the best defence against unreasonable demands from parents. The information gathered by professionals concerning diagnosis and assessment should be explained in terms that the parents can understand. The role of assessment vis-a-vis parents should be to give and collect as much information as possible about the different skills of the child. This will give the parents reasonable expectations for their child's development and establish a more constructive relationship between the parents and the programme. It is also important for the teacher becoming acquainted with the diagnostic criteria. This will allow her, on her daily observation of children diagnosed as autistic, to be able to identify features which may signify underlying problems of which the autistic features are only additional signs (Furneaux and Roberts, 1977:17).

In Kuwait and Saudi Arabia, the facilities for diagnosing and assessment are completely inadequate. In Saudi Arabia, the King Faisal Hospital in Riyadh, coordinated by Dr. Nester, is the only diagnostic facility available. The huge demand and wide coverage of different disabilities does not allow for effective and adequate diagnosing and assessment. A similar situation exists in Kuwait. Diagnostic-facilities in both countries lack the necessary specialization, staff and clinical-testing facilities. The inadequacy in diagnosing and assessment in both countries has led to unreliable educational plans for the child and to frustrated parents.

Because of the inadequacies of the current diagnostic and assessment capacity in both countries, a supplementary pragmatic-evaluation approach is warranted. Thorough diagnosis is a crucial perquisite to implement appropriate educational intervention. However, we have to remember that the level of cognitive functioning is not a diagnostic indicator of autism. As Phelps and Grabowski (1991:115) concluded, "a specialized multi-dimensional testing and

naturalistic observation completed by an interdisciplinary team provide the most accurate and comprehensive assessment model". However, until acceptable diagnostic and assessment capacity is available in both countries, the programme will reassess any case that is unsatisfactorily evaluated. In order to carry out such a task, the programme will utilize the services of both domestic and foreign experienced experts. Such utilization will be intensified mainly in the early stage of the programme's implementation.

Each of the tests and scales differs in its appropriateness to child developmental level as well as its outcomes. Some of them will provide information to make appropriate service provision or learning strategies for an individual, others will identify areas of behaviour in which it will desirable to enhance social competence. The most important outcome of any test is to provide us with information which helps us, specifically to teach the child through identifying, training and teaching objectives and needs. However, we should pay special attention to the language contents of the tasks as well as the motivational and attentional variables.

The availability of many rating scales is extremely advantageous since these enable the diagnostician to understand better the severity and breadth of challenging behaviour(s). A more effective early intervention plan can thus be developed. The role of diagnosis and assessment in the effectiveness of the programme is essential since assessment capacity in Kuwait is not adequate. In addition, autistic children have shown considerable high variability subtest scores (Rutter, 1966) which makes the role of assessment a challenging one.

4.3 Special Education

It is important within the context of evaluating the services currently available for autistic children to assess the adequacy of the special education functions and services in both countries. As indicated in Chapter 2, the Kuwaiti society's attitude and receptivity towards clear physical disability is positive and

encouraging. However, such receptivity declines with reference to a more ambiguous and complex disability, such as autism. As suggested in Chapter 2, the evaluation of the resources diverted to special education indicates that the society attaches less importance to this sector. Special education often receives meagre resources. Unless there is a huge effort to enhance awareness about autism, similar negative attitudes could be expected from the society. In the following paragraph we will analyse the development of special education in both countries and indicate the weaknesses as well as the challenges that if faces.

When examining the special education in Saudi Arabia, it is important to note that although the country's general education system is segregated with reference to sex (article 155), nevertheless the Ministry of Education is the sole authority responsible for educating disabled or retarded girls and boys (Al-Salam, 1990). The establishment of a special education department in the country can be traced to 1952, when a Saudi citizen who had migrated from Iraq tried to educate a few blind people in the capital, Riyadh, using braille language. Such efforts led to the establishment of the first blind institute in the country. In 1960, the government adopted and accepted such education, and took over the institute. This is similar to the pattern in other countries' development of priorities (Rijswijk and Foreman, 1996). In 1992, there were 46 specialised institutes which took care of different areas of disability (Table 4.1). The first institute for mentally retarded individuals was established in 1971 and currently there are four institutes for boys and three for girls in four major cities. The ministry has adopted a special curriculum for such education. Furthermore, the Ministry of Social Affairs has started a vocational training programme for retarded individuals. Under this programme, there are two kinds of training, one for mild and the other for severe retardation.

Table 4.1

Special Education by Students, Teachers and Institutions
in Saudi Arabia for the years 1990-1992

Years	Female	Male	Total	Growth	No. of teachers	No. of institutes
1990	1589	2953	4542	-	994	35
1991	1801	3093	4894	7.54%	1146	38
1992	2073	3635	5708	15.61%	1336	46

Reference: Ministry of Finance and National Economy, Saudi Arabia, Statistical Year Book 1992

Until recently, no facilities were available to care for autistic children. Nevertheless, with the initiative of one non-governmental organisation, a modest facility for autistic children was established in the city of Jeddah in 1993 with two classes and 10 children. In addition, modest training efforts for teachers were established within the facility.

Similar to Saudi Arabia, the emphasis on special education in Kuwait started with the establishment of a school for the blind boys in 1955. In 1990, the number of students enrolled for special education was around 2000, of which 30% were expatriates (Al-Ahmad, 1990). However, the number levelled to 1551 students in 1993/94 due to the Gulf War and the emigration of many expatriates (Table 4.2). Article 4 in Law 11 of 1965 which enforces compulsory education has also included disabled individuals within its coverage. As such, it is compulsory in Kuwait for all children to be in school, and the Ministry of Education (MOE) is obliged to provide appropriate educational facilities for them, irrespective of their abilities or disabilities. Currently the MOE is responsible for providing the necessary care for four kinds of disabilities - blindness and related disabilities, deafness and related disabilities, mental retardation, and physical disabilities. For all these disabilities, the ministry has designed a special education syllabus, education plan, curriculum and books which are different from those used in general education. One criticism of the special education institutes in Kuwait is their insistence on educating and

rehabilitating all mentally disabled children under one roof, regardless of their disability and the diversity of their needs and skills.

Public special education institutes in Kuwait accept only those children who are regarded as physically and mentally retarded. To be eligible for admission, those children should have the ability to learn and their age should not exceed 14 years. This implies that some children are seen as ineducable. Due to the large non-Kuwaiti population, the institutes are allowed to accept expatriates, provided they do not exceed 10% of the enrolment. Currently, there are 30 such institutes which take care of different disabilities.

Table 4.2

Special Education by Students and Institution in Kuwait
for the years 1991-1994

Years	No. of Students	Growth	Teachers	No. of Institutes
1993/94	1551	-	463	31
1994/95	1588	9.1%	484	30
1995/96	1629	2.4%	471	30

Reference: Ministry of Planning, Kuwait, Annual Statistical Abstract, 1994, Kuwait
Ministry of Planning, Kuwait, Statistical Diary, 1997, Kuwait

Review of the few studies that have been conducted on disabled individuals in Kuwait reveals that there was no early awareness about autism as a disability. Al-Khatib's (1976) study, which could be considered the first about disability in Kuwait, reported the existence of many kinds of mentally disabled children, equal to 3% of the total population. Nevertheless, he did not indicate any existence of autism within his study. Furthermore, his study revealed that once graduated from the special education institutes, the opportunities for employment for disabled individuals were rare (Al-Khatib, 1976).

In a subsequent study concerning the assessment of the disability, Al-

Khatib (1978) indicated that 25% of patients in the retarded children's residential facility could be diagnosed as children with epilepsy. The study suggested that this group should be treated separately, as otherwise they may create a lot of frustration for other children within the facility. Due to the lack of sufficient knowledge and appropriate awareness, many autistic children may have been included within this group, since research indicates that many autistic individuals may also have epilepsy (Elliot, 1990).

The compulsory education law in Kuwait, No.11/1965, requires all parents to admit their child to one of the special education schools, if s/he is not eligible to be admitted to a general public school. However, many children with a complex handicap syndrome, such as autism, are not even admitted to special education schools. Though the country has provided extensive educational facilities for disabled individuals, nevertheless, there are many disabled individuals outside the stream of these services. There is also a need to enhance the services provided to include all kinds of disabilities, including autism.

It may be useful before analysing the current status of special education in Kuwait to enlighten ourselves about the status of Special Education Needs (SEN) elsewhere. Lewis (1995:11) has described the shift in thinking of provision of services to children with SEN in the UK which includes the following:

- focusing on children with SEN but without a statement;

- an increasing role for the responsibilities of special educational needs coordination (SENCO);

- a re-focusing in the special needs infrastructure in schools and LEA, especially in the area of training and availability of expertise;

- an increased stress on partnership with parents through providing information and necessary consultation and advice;

- greater accountability concerning mainstream special-needs provision through publishing special needs policies and ensuring that adequate information is supplied to all concerned; and

- a tightening of the legal framework of special needs provision through regional tribunals.

Compared to the U.K., the curriculum of special education in both countries under review is in a very preliminary stage. It is partially integrated into the general curriculum with minimum differentiation among different non-physical disabilities. In any ordinary special education class, there is a mix of different syndromes and disabilities which makes effective educational intervention difficult. Teachers and staff are neither sufficiently knowledgeable about the disabilities which they are handling nor are they given the appropriate training. Consequently, parents find the services provided for their children are not up to their expectations. Furthermore, parents are neither consulted about the needs of the child nor encouraged to participate in his or her education process. This leads to parental frustration and further alienation. It is important within the proposed programme, therefore, to involve the parents more in educating their autistic children which the current special educational institutes lack. The involvement of parents, both as co-therapist and co-partners, is highly desirable.

One weakness of special education in Kuwait and Saudi Arabia is the lack of any adequate teacher manual concerning implementation of the curriculum. Consequently, special education teachers depend totally on the directives that are issued in the teacher's instruction book which accompanies all the text books used in general education. In addition, the teachers usually follow all the directives of the Ministry of Education (MOE) that are circulated in general education, though these may be of little value or relevance in special education. In countries with a relatively fixed curriculum, one factor for effective intervention is the existence of adequate teaching directives, which the suggested programme may emphasise and implement.

A second weakness of special education in both countries is its vagueness and the simplicity of its curriculum. There are many special education techniques, such as behaviour management, data recording or one-to-one training, which are not implemented. The curriculum of special education is not comprehensive enough to cater for the special needs of the child. In addition, teaching is subject-based, preventing the teacher from having the greatest possible impact on the child.

A third weakness is the lack of an adequate mandate to inform the parents about the child's progress in a clear and defined format. The practice currently is to treat such matters as purely administrative issues. It is up to the headmaster to inform parents about the progress of their children in whatever way he deems appropriate and adequate. The prevailing system of special education reporting calls for parents to be informed of progress at the end of the first half of schooling as well as at the end of the year. Reporting at such lengthy intervals is not adequate to keep the parents informed of a child with a developmental disorder nor does it facilitate school-home interaction. Rather it demotivates parents' involvement. Furthermore, parents do not have any access to any records while parents in the UK, for example, have access to curricular records and any other of the school's relevant records. In addition, in the U.K., a system for record correction has been installed (Moon, 1996), a necessity in an environment where teachers lack the necessary educational background and experience.

Taking into consideration such weaknesses, the suggested programme will focus on developing a system for effective teaching directives as well as enhancing school-home partnership and interaction. Developing a more comprehensive curriculum for autistic children will be raised with the MOE at a later period. This is due to the fact that developing such a curriculum necessitates skills and resources beyond the mandate and the capacity of the suggested programme.

4.4 Review and Assessment of the Current Facilities for Autistic children

Before designing any proposed programme for autistic children, it is vital to review the current facilities available. A detailed assessment of such educational programmes and services in Kuwait and Saudi Arabia will be made in the subsequent paragraphs. The analysis of Kuwait will serve as illustration for Saudi Arabia given the educational similarities between the two countries.

Caring efforts for autistic children in Kuwait are currently scattered and unplanned, and in most cases unintegrated. This is due to the fact that, in general, the responsibilities for retarded children in Kuwait are divided among many governmental and non-governmental organisations. For example, MOE, MOPH and MOSA have partial responsibilities for providing non-educational services for retarded children while many non-government institutions and societies are trying to fill the gaps left behind by these public organisations. Such diffusion in the provision of services is attributed to many factors including the society's low awareness about retardation in general and autism in particular, the non-existence of any mandate or law that protects the rights of disabled individuals, the lack of a comprehensive national plan for educating and caring for disabled individuals and the absence of a focal or central organisation for the planning of such services.

In the next few paragraphs, we will try to describe and evaluate the efforts of different governmental entities, as well as NGOs which are active in providing educational or support services to children with SEN, especially those with autism. Such evaluation will focus, among others, on the objectives of the organisation, the scope of its services, the population it serves, the effectiveness of its approach, its contribution in caring for autistic children, and the sustainability of its services.

4.4.1 Government Bodies

Ministry of Education

Since its inception, the Ministry of Education (MOE) has been active in

the area of physical impairment, such as deafness or blindness. Its focus was on single rather than multiple disabilities. But the ministry was not able significantly to improve its efforts in the area of other kinds of mental or developmental difficulties, including autism. Its efforts to focus on a single physical handicap were further strengthened by the establishment of the Special Education Complex in the year 1972. This complex consists of five specialized and well-equipped schools with a total enrolment of 1600 students. The current facilities cover such disabilities as blindness, deafness, Down's syndrome, mental retardation, but exclude autism. Children with these disabilities are confined in one school. The lack of adequate facilities for such children has compelled many parents and professionals to make extensive efforts to convince the MOE to fulfil its role in this regard. All these efforts have, however, been unsuccessful and the ministry's reaction has been modest. Ministry officials have always felt that the magnitude of the problem and the population involved, which they claim is not more than 80 individuals, does not justify its intervention. Furthermore, there were no accurate data to suggest otherwise. Consequently, many autistic children were eliminated from the school system due to their failure in admission tests. Such psychological tests are not designed for those children, which consequently led to their failure and rejection. However, due to continuous pressure from parents and the mass media, the MOE has embarked upon a meagre programme to fill this gap. It allowed limited admission, for 8-10 children, to schools for the mentally retarded. Most of those admitted were high-functioning autistic children, while medium- and low-functioning children were rejected.

The efforts to provide adequate education for autistic children were further strengthened with the more positive attitudes created by the new Under Secretary at the MOE, who is the father of an autistic child. As a result, the MOE constituted a special education council, in 1993, to look for ways of providing the necessary care for children with special education needs. This shows how one or two influential people with a personal interest can make a huge difference. A similar situation has occurred elsewhere as well, e.g. in

China with the establishment of the Disabled Persons' Federation through the disabled son of Deng Xiaoping. The council, which was considered as a focal point, looked into all the activities concerning gifted students, slow-learning pupils and autistic children. The council was expected to be responsible for coordinating all activities which had relevance to its responsibilities, which had formerly been undertaken by other public institutions and NGOs. However, because of meagre resources provided, the council was not able to provide any services to individual disabled children, including those with autism. Furthermore, red-tape procedures within the MOE hindered the flourishing of the council's activities. The main role of the council, as envisaged, has been to focus on coordinating activities concerning efforts and services currently undertaken to serve the targeted children. Nevertheless, the council's focus is currently only on slow-learning children and mainly in the area of revamping the elementary curriculum to fit their needs. One positive contribution by the MOE, as a result of establishing the council, was its undertaking to bear the cost of providing the necessary teachers and support staff for the suggested programme.

Ministry of Public Health

The Ministry of Public Health (MOPH) focuses mainly on the medical needs of disabled children, including diagnosis, evaluation, assessment and rehabilitation services. The services of MOPH are provided through separate scattered departments and hospitals, such as:

1. Developmental Medical Treatment Dept., Al-Sabah Hospital
2. Psychological Rehabilitation Department
3. Speech and Hearing Treatment Centre
4. Physical Rehabilitation and Medical Hospital
5. Medical Genetics Centre

Within the MOPH, autism is within the jurisdiction of the department for developmental medical treatment. This department is responsible for diagnosis and assessment, as well as advising all disabled children as to the existing facilities available in the country. However, the role of the department is limited

due to inadequate resources, both financial and human, and the lack of facilities. The department has issued its first statistical report, which indicates a population of 123 autistic children in Kuwait handled by the department in the last five years (MPH, 1996).

Ministry of Social Affairs

The Ministry of Social Affairs (MOSA) is mainly interested in giving financial assistance to those families which have disabled children in their custody. The MOSA neither advises regarding available facilities nor provides necessary guidance or support to families with disabled children. For those disabled individuals who need residential care, MOSA has established and supervises residential facilities. Furthermore, MOSA runs a technical training institute for disabled adults which provides vocational and technical teaching. However, both facilities lack adequate resources, suffer from the absence of clear education planning and have a shortage of skilled manpower.

The Permanent National Committee for Disabled individuals

The above committee was established by the MOSA in 1994. Its objective is to assist as well as coordinate the activities of the government and NGOs interested in serving disabled individuals. Though the committee has held several meetings, up to now it has been ineffective in achieving its desired objective of enhancing services for disabled individuals. A major contribution has been its submission of a law which provides protection, adequate support, employment opportunities and access to public areas and workplaces for disabled individuals.

As can be seen from the above analysis the contribution of governmental organisations toward providing adequate services to handicapped individuals is modest. This gap in services encouraged the NGOs to be active in this area to fill the gap. Their efforts will be the subject of the next paragraph.

4.4.2 <u>Non-Government Organisations</u>

In Kuwait, there are many NGOs actively involved in providing necessary services for disabled children. Though more than 10 NGOs are diligent in providing such services, we will evaluate only the efforts of two, namely the Kuwait Society for the Handicapped, and the Khalifa School. This is because they are the only NGOs currently serving the needs of autistic children.

<u>Kuwait Society for the Handicapped</u>

The Kuwait Society for the Handicapped (KSH) was established by a group of volunteers in 1971. This society is one of the most active NGOs in Kuwait. KSH provides services for children with multiple handicaps or severe disorders as well as for those with disabilities which are not covered within the public special-education facilities. Its services have flourished, due to the gap that exists in the services provided to disabled children by the MOE and other public organisations. KSH has tried to fill that gap by expanding its services in many areas, mainly providing institutional treatment and day-care facilities. In addition to its day-care centre in its headquarters, it established two day-care centres in the suburban areas in 1987 and 1993. In 1982, the society established a day-care school for children with mental disabilities, Down's syndrome and other kinds of retardation. It is estimated that the society has registered, within its population, 623 children, of whom 7% (47) are autistic children.

Children with multiple disabilities are referred to KSH by specialists or parents. The society is assisted by a team of experts from different disciplines. KSH has an adequate programme that is implemented in its day-care centres for multiple disabilities. KSH's report indicates that a special pilot programme for autistic children has been implemented and a modest improvement noticed.

However, from my personal experiences and observations, no specific programme has been designed to give adequate education to autistic children, and KSH still lacks the knowledge and necessary resources to provide such a

facility. As a general observation, the educational cadre in the society are mainly Arabs with below-university educational background and relatively little experience. As a consequence, the effectiveness of the programme was not up to expectations, particularly in view of the teacher turnover and the diversity of disabilities covered. The day-care school which looks after autistic children is administered by a director, who holds a psychology degree and is keenly interested to know more about educating autistic children.

Khalifa School

This school was established in 1988 on the initiative of the mother of Khalifa Al-Ghanim, who was a retarded child with cerebral palsy. The school continued to function even after Khalifa's death. It started with the support of many volunteers, mainly the wife of the U.K. Ambassador, in 1988-90. The programme suffered due to the Iraqi invasion and the departure of the ambassador's wife, who had followed the programme keenly. Nevertheless, the school has emerged as one of few with specific emphasis on cerebral palsy, Down's syndrome and autistic children. It claims to have an adequate programme for the latter group. From my experiences and observations, such a claim needs further scrutiny, however. It follows the teaching approach of TEACCH, which is widely implemented and promoted by the University of North Carolina in Chapel Hill. The school has a day care service for 170 disabled children, of whom 43 are autistic, and its resources seem to be adequate. Over time, however, its financial resources are shrinking. The programme is conducted in English, while most teachers are Filipinos or Indians. The programme needs more technical support to improve the teachers' abilities and to modify the curriculum. There is also a need to classify children into programmes that fit their needs, rather than grouping them all together.

The review of the current facilities for autistic children in Kuwait indicates four points of impetus giving rise to a need to establish a separate programme for those children. The most compelling one is the frustration of parents, who have been unable to admit their children to ordinary public schools, being

forced instead to admit them to unsuitable programmes. In Kuwait, as well as in other countries, the phenomenon of autistic children's non-entrance to the education system led to widespread mass-media coverage.

Such coverage, coupled with increased public awareness, was the second impetus to the establishment of a suitable programme. The first book in Arabic about autism was published by the author in 1993 and reprinted in 1996. Such efforts were followed by the flourishing of many publications on autism. The increased public concern raised the need to establish a suitable programme for autistic children.

The third impetus is the need to admit autistic children to appropriate and specialized programmes. Although the Khalifa School has accepted autistic children within its population since 1989, developing a separate specialized programme in the school is far from reality. The inability of the current facilities to meet the needs of autistic children through specialised dedicated facilities necessitates the establishment of a special programme.

The fourth impetus was the appointment to top educational posts of dedicated parents, which has led to the creation of a special needs council in the MOE as well as the establishment of a fund for handicapped and special needs children within the Kuwait Awqaf Public Foundation (KAPF). This indicates a supportive environment for the creation of a specialized programme. All these factors necessitate the establishment of a separate programme for autistic children.

In summary, the controversies about the nature and aetiology of autism have led to unclear boundaries of responsibilities for those children within the health and education sectors. In consequence, no specialized programme or organ has been given a clear mandate to undertake the responsibility for evaluating and educating autistic children. This raises the need for both a specialized educational programme and early intervention, which will be the

subject of the next section.

4.5 The Need for the Educational Programme and Early Intervention

As indicated previously, early and accurate diagnosis is one of the ingredients for effective educational intervention. In most cases in Kuwait and Saudi Arabia, even those parents lucky enough to receive an early diagnosis of their child's autism are not able to enrol them in any suitable programme. Most programmes are still a residue of the medical mode of 'care and attention' rather than of an educational approach with a clearly defined curriculum focus. Such inability deprives the child of the chance of numerous social interactions and experiences that are available for normal children. The longer s/he remains in a state of unstructured education, the more stimulating experiences s/he misses.

The need for early and structured educational intervention for autistic children was not recognised prior to Lovaas and his colleagues. It was not until 1973 that Lovaas, Koegel and colleagues (1973) reported in their major follow-up study the long-term result of behavioural treatment on improving the behaviour of autistic children. They indicated that structured programming seems essential for both the establishment and maintenance of treatment gain. The study suggests that individuals with autism require a continuous intensive programme.

It has been recognised that early intervention will lead to enormous differences in any handicapped child (Kellegrew, 1995). This is because such intervention will be done at the stages of the child's development when rapid growth occurs. Early intervention broadly used to refer to those practices between a child's birth and 6 years of age, although most address service delivery for children between birth to 3 years of age (Dunst et al, 1991:115). There are several reasons for such early intervention (Trevarthen et al, 1996). One of the best indicators of autism is the level of functional language used at 30 months. The earlier the intervention, the better the language development.

Second, early intervention could reduce secondary behavioural difficulties, such as aggressiveness, that often arise as a consequence of behaviour that interferes with the learning process. For example, much of the aggressive behaviour could be the result of the inability to communicate.

For these reasons, early intervention, after diagnosis of autism, is vital. Furthermore, communication improvement in infancy and preschool offers the best model for the kind of one-to-one teaching to which autistic children react the best (Trevarthen et al, 1996). Lovaas and others in UCLA argued that intensive early intervention of two or more years' structured one-on-one behaviour modification supported by trained specialists and parents will lead to a remarkable success rate (Lovaas et al, 1981; McEachin et al, 1993). Such arguments are supported by another study which indicates that early intensive intervention at the pre-school stage leads to striking gains and significant improvements in language test scores for autistic children (Harris et al, 1991).

Early intervention is not only effective in the United States or England, but worldwide. A recent Japanese study by Kobyashi and colleagues (1992) indicates that the availability of early educational opportunity may indeed lead to the greater social and vocational success of autistic individuals, and that this is especially true in the presence of intensive intervention. Early intervention also narrows the gap between autistic and other children, and leads to language enrichment (Harris et al, 1991).

The examination of the above studies indicates the importance of early intensive intervention in improving the life of the autistic child and his or her family. It demonstrates that such educational intervention will lead to the better development of the child. For example, the increase in the sophistication of communicative techniques and improved early language intervention have led to considerable improvement in approximately 70% of the 50% of those autistic children who are completely non-verbal (L.K. Koegel, 1995). Such intervention necessitates a comprehensive educational programme which looks into the

needs of the family as well as those of the child. In view of the lack of any such programme in the countries under discussion, it is essential for these countries to remedy the deficiency. This will provide the necessary education for an extremely disadvantaged group. It will also decrease the parents' confusion. The need for such a specialized programme is amplified due to the following factors:

i.   Establishing a programme will provide continuity to the educational process. The need to have a sustainable programme originates from the fact that "the principle of continuity is one of the most basic in child development" (Zigler, 1984:28).

ii.   The establishment of such a programme will bring about increased awareness of the syndrome and will act as a catalyst for the demand for basic legal rights and services.

iii.   It will motivate researchers to conduct studies into autism since all study subjects will be confined in one centre with the necessary facilities and support.

iv.   The programme, when established, could be the focal point for the exchange of experiences and other beneficial activities provided by national and international organisations.

v.   When established, the programme will function as a special centre which will have the advantage of the concentration of special skills, providing the teachers as well as the parents with a good base for wider participation and knowledge (Gillberg, 1989a).

As discussed previously, although modest development has been made towards providing adequate education for the autistic population in Kuwait and Saudi Arabia, appropriate educational programmes are not yet a reality. Regardless of the theoretical base of any intervention, it appears that early, intensive, positive approaches that involve parents and non-disabled peers as facilitators and that emphasise communication in a natural setting hold the most promise for autistic children.

A review of the outcomes of early intervention programmes for 3 to 5 year-old autistic children (Simeonsson et al, 1987) identified common features among programmes whose outcome provided the most comprehensive impact:

1)   The programme is implemented before the age of 5

2)   The programme uses an intensive approach involving many hours a day, 5-7 days a week, all year around, both at home and in a school setting.

3)   It emphasises training parents to implement the programme as well as encouraging their participation.

4)   There is a focus on generalisation by using natural settings and involving family members and peers.

5)   Positive sequences and a structured behavioural approach are used.

Such features will be taken into consideration while designing the suggested educational programme for autistic children in Kuwait.

4.6 Human Resources and Teacher Profile

One of the great challenges that will face the proposed programme is the availability of human resources. For example, teaching in special education schools is not an attractive occupation for natives of Kuwait. Table 4.3 shows that in 1994/95, 45% of special education teachers, compared with 58.8% for general education, were natives, including 36% of the male teachers (31.3% for general education) and 55.3% of female teachers (74.4% for general education). This indicates that natives in general, especially females, are not attracted to special education occupations. Unless this tendency is reversed through an incentive system, the proposed programme may face a similar problem.

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Table 4.3

Profile by sex and nationality of teachers in
Special Education Schools in 1994/95 (Percentage)

	Kuwaiti		Non-Kuwaiti	
	Special Education	General Education	Special Education	General Education
Male	36%	31.3%	64%	68.7%
Female	55.3%	74.4%	44.7%	25.6%
Total	45.3%	58.8%	54.7%	41.2%

Reference: Ministry of Education, Kuwait, Annual Statistical Report, 1995/96

The student-teacher ratio in special education in 1994 was 3.3:1. More specifically, it was 3 female students per female teacher and 3.5 male students per male teacher (Table 4.4). This ratio is within the acceptable range. However, for teaching autistic children, a ratio of as few as 2 students per teacher would be preferable to provide a highly structured environment. In highly structured settings with small-group activities, autistic children show more spontaneous behaviour as well as more social behaviour and cooperation (Schopler et al, 1981).

Table 4.4

Student-Teacher ratio in Special Education in 1994

Male	Female	Average
3.5	3	3.3

Reference: Ministry of Education, Kuwait, Annual Statistical Report, 1995/96

From a remuneration perspective, teachers in special education schools are no better off than teachers in general education. The only extra benefit they get is greater experience and training. As for financial benefits, they receive only an extra allowance of KD 25 per month (around £60 sterling), which represents less than 5% of their average total salary. Taking into

consideration the difficulty of the syndrome, this allowance does not compensate for the heavy workload as well as the stress associated with teaching children with mental handicap.

As a consequence, in its effort to attract able and qualified teachers, the programme has to provide extra benefits, beyond what the current system offers for special education teachers. Such benefits should be in the form of teaching allowances, in order to discourage teachers from seeking alternative positions in general education or shifting to administrative jobs. Such benefit should be sufficient to attract qualified teachers, while at the same time not exhausting or creating an excessive burden on the financial resources of the programme.

The analysis of the teacher profile currently employed during the implementation stage of the programme shows that the teachers are relatively young and inexperienced in terms of their teaching and their experience of autism, but that they are well-qualified. The review of teachers' age profile indicates that 79% are less than 29 years old, while 21% are between 30-40 years (Table 4.5). This shows the low age of teachers, as well as the potential of high mobility and great turnover.

Table 4.5

Profile of Teachers (Age)

YEARS	NUMBER	%
Less than 30 years	11	79%
30-40 years	3	21%
Above 40 years	-	
Total	14	

The review of the educational profile of the teachers shows that 86% are university graduates while 14% have post-graduate degrees (Table 4.6). This

excellent educational profile indicates a high potential for training and development.

Table 4.6

Profile of Teachers (Qualification)

QUALIFICATION	NUMBER	%
University	12	86%
Graduate	2	14%

The analysis of the educational-experience profile of teachers shows us that 64% have less than one year's experience, while 29% have more than 5 years' experience. This indicates that the majority of the teachers lack the minimum eductional experience that is ideally needed for such a programme.

Table 4.7

Profile of Teachers (years of teaching experience)

YEARS OF TEACHING EXPERIENCE	NUMBER	%
Less than 1 year	9	64
1-5 years	1	7
More than 5 years	4	29

As expected, tables 4.5, 4.6 and 4.7 indicate that in terms of age, experience in teaching and experience with autism most teachers are not well equipped to undertake the challenge of educating autistic children. The only positive trend is that most of them are well educated. All of them have at least one university degree, which means that they will be able to grasp the main components of dealing with autistic children if they are well trained and exposed to other experiences. Furthermore, it implies that the programme should emphasise the training and development aspects, especially in its early stages,

in order to prepare the teachers for the challenges awaiting them. Lovaas and Smith (1994) estimated that a six-month full-time training period with supervised one-to-one behavioural treatment is necessary to adequately prepare the teachers. Though such duration and intensity is ideally needed for the training plan, due to meagre human resources, a less-ambitious training plan will be conducted within the proposed programme, the details of which will be discussed in chapters 6 and 7.

Due to the low level of receptivity toward autism, all teachers, including those working as special education teachers, have received little, if any, specialized training. When the profile of 14 female teachers currently working with autistic children was analysed, all had less than one year's relevant experience (Table 4.8). As a consequence, autistic children, who are among those with the greatest need for highly specialist educational training, may be taught by generalists.

Table 4.8

Profile of Teachers (Experiences in Autism)

EXPERIENCE IN AUTISM	NUMBER	%
1 year or less	14	100
More than 1 year	-	

We can conclude, therefore, that teaching resources in the form of specialized teachers for the programme are not adequately available in Kuwait. This is because Kuwait is in the early stage of development for special needs education and there is huge need to train and reorient the attitudes of teachers in order to equip them to educate autistic children.

The profile of teachers revealed in the above analysis implies the following considerations for the programme:

1. Though teacher assistants are needed, the less-experienced teachers can play this role for the time being, which will enable them to improve their understanding and skills.

2. Coaching supervision and continuing flow of information about autism is essential to enhance the knowledge of teachers and staff.

3. There is a need for an extensive training and development programme for the teachers.

4. An adequate incentive plan must be designed to attract qualified or potential teachers.

4.7 Availability of Financial Resources

For any programme to be implemented effectively, there should be a minimum availability of resources. Those resources are essential for promoting and developing the programme, including the availability of qualified teachers, materials and equipment facilities, and the monetary means to run the programme itself. The adequate financial funding of the programme is vital to its survival as well as its total coverage of services. For example, the home-based teaching project established in South London (Howlin and Yates, 1989) was a pioneer cost-effective approach in training autistic children. However, due to funding problems, it came to a halt. Most of its effective components, such as time spent on face-to-face contact were drastically reduced and many of its services had to be implemented on a consultancy basis. In order to avoid such a situation, the programme should embark only on those services that will be financially sustainable.

Currently, since there is no legislative mandate, all services and facilities are provided on a non-mandatory basis by the government agencies. Those services provided by non-governmental agencies do not guarantee continuity or sustainability. So one of the challenges that will face any programme is the sustainability of the programme itself and its funding plan.

In this regard, the suggested programme is expected to be supported by the Kuwait Awqaf Public Foundation (KAPF) which has given strong commitment to support it continuously. To fulfil this commitment, KAPF is already providing an adequate building in addition to bearing the cost of all necessary improvement to make it usable for the proposed programme. Furthermore, KAPF will provide the necessary financial resources to cover all current expenditure. In addition, as indicated before, the MOE will cover all the costs related to teachers. An endowment policy for the programme will be developed which will help to ease the future monetary burden on the KAPF. Nevertheless, the assurance of such future KAPF commitments will be a challenge to the programme.

In order to ease the financial burden on the programme, as well as to assign to parents their share of responsibility, the programme will request a nominal fee of KD 500 per year (US$ 1660) for each child enrolled. Furthermore, the programme will appeal for donations and contributions by parents and the general public. The cost of the programme is expected to be US$ 744,558 (Table 4.9) with the following assumptions:

1. it is a day-care programme with 24 students enrolled;

2. the ratio is 2 students per teacher;

3. the management cadre will consist of a director and headmaster;

4. the support staff will consist of a physical education teacher, art teacher, occupational therapist, speech therapist and a music teacher; and

5. the administrative staff will consist of two typists (English and Arabic), secretary, accountant, driver and messenger.

Table 4.9

Yearly total cost of the suggested programme

Expenditure	In KD	In US$
Teachers	100,800	335,664
Management Staff	19,200	63,936
Support staff	7,800	25,974
Admin. staff	11,800	39,294
General Admin.	60,000	199,800
Consultancy & Training	20,000	66,600
Capital	10,000	33,300
Contingency	3,000	9,990
Total	232,600	774,558

Note: The currency exchange rate is US$ 3.33 per KD.

Table 4.9 indicates that the cost of education per student is expected to be approximately US$ 32,273, which is comparable to other programmes, such as the Delaware Autistic Programme in the USA which costs US$ 40,000 (Bondy and Frost, 1994:38). The yearly funding plan to meet such expenditure will be as suggested in Table 4.10.

Table 4.10

Funding Plan for the Proposed Programme

RESOURCE	IN K.D.	IN U.S.DOLLARS
Ministry of Education (Salaries of teachers)	100,800	335,664
Tuition fees	12,000	39,960
Sale of publications	3,000	9,900
Donations and contributions	50,000	166,500
Income from the proposed fund	10,000	33,300
Total resources	175,800	585,324
Total expenditure	232,600	774,234
Deficit to be borne by KPAF	56,800	189,144

4.8 The Availability of Supporting Services and Facilities

Many authors have recognised the importance of the availability of adequate supporting services, such as professional counselling (Pueschel and Bernier, 1984), special baby-sitting services and respite services to maintain parental commitment (Bristol and Wiegernik, 1979). In general, the foregoing evaluation has shown that the availability and provision of such services, including educational, social, recreational, vocational, health, transportation and residential resources from and within the society are not adequate when compared with the developed countries.

Such supporting services are required in order to achieve and maintain a normalized life-style for autistic children within the community in which they are living. In addition to educational services, the programme should provide recreational and vocational facilities and transportation services. However, residential facilities will not be available at this juncture, for a number of reasons. Nevertheless, the need for such services as well as the scope of their activities will be analysed in subsequent chapters.

In pursuing the necessary services for their autistic children, parents face many challenges. One challenge facing the parents of autistic children in Kuwait and Saudi Arabia is finding medical and dental care, especially for severely autistic children. At present, parents receive medical services for their children on a case-by-case basis and depending on the understanding and receptivity of the individual physician and medical staff. Currently, there are no specific arrangements for special hospital units where the staff are familiar with the children's behaviour. Consequently, many parents, in order to avoid upsetting the child, try to arrange a quick appointment to avoid long waiting times.

A second challenge is the lack of appropriate statistics on the autistic population. For example, up to now there has been no epidemiological survey in either country. Such a population-based study would enable the planner to gain knowledge of the number of cases in a certain area, with possible causes for the syndrome. Such a survey is an essential precondition for the planning of services for children with handicaps, including those with autism. Recently, the gene centre in Kuwait has been collecting and analysing medical tests for all the children who approached the centre seeking advice and diagnosis. Such information, if accumulated and properly analysed, may highlight some of the causes of autism in Kuwait from a genetic perspective.

A third challenge in this regard is the fragmentation of services available from the government. Due to the low level of awareness and the confusion about the aetiology of autism, a child has to meet many different specialists. In addition, the supporting services are scattered among different responsibilities and mandates. In contrast, services for children with other specific handicaps, are adequate because the responsibilities for each type of handicap are clear.

A fourth challenge to the programme is the availability of appropriate teaching materials. It is difficult to find such resources in Arabic. The programme will develop such materials gradually. Other educational equipment

and facilities will be established on the model of similar institutions.

A fifth challenge is the weakness of parent groups. Unlike the situation in the West, parents' societies in both countries are non-existent or inactive. The law in Kuwait and Saudi Arabia requires huge formalities and waiting time for any NGO to be approved and registered. This has led to the creation of many informal groups which do not provide the institutional capacity needed to develop the necessary support for the educational programme.

Due to limited resources, the programme will try to utilize existing community-based resources whenever possible. However, it is expected that these efforts may frequently encounter opposition. First, the lack of awareness of the syndrome is likely to diminish any sympathy or enthusiasm toward providing the services. Second, since many of the children have obvious problems with social and communication skills, as well as disruptive behaviour, individuals with autism will be excluded from the available services, including those for the handicapped. The programme, through a gradual awareness campaign and active interaction with the providers of services, will improve their delivery to autistic children.

4.9 Conclusion

This chapter has analysed a number of background factors which need to be considered before an effective programme can be established. The review of current facilities suggests that autistic children are at a great disadvantage in terms of their basic rights and the adequacy of the services provided. This is due to the low level of public awareness, the lack of legal mandates, as well as the transitional development-stage of the society. The existence of diagnostic and assessment facilities could be a great tool in indicating the magnitude of the syndrome. Unfortunately, such facilities are not adequate in either Kuwait or Saudi Arabia. This necessitates that any programme established should utilize external experts for the short term while building the necessary indigenous capacity for diagnosis and assessment.

Another problem is the complexity of the condition. No two autistic children are identical. Although they share a core group of characteristics, they differ in the manifestation of these, in symptom severity and, most importantly, in the causes of such symptoms. Each child and his family also possess unique strengths and talents. A thorough diagnosis and assessment will enable the educators to develop an effective intervention plan that adequately reflects strengths as well as weaknesses.

Many assessment instruments and scales are available that could be used to test the child's level of functioning and to measure his progress. Such assessments will enable the educationalist to identify specific behavioural problems and to provide a necessary approach for treatment. Rating scales are extremely advantageous for diagnosis and assessment, so much so that their use has become widespread. CARS and PEP scales could be useful tools in the programme. The importance of assessment in developing programme planning and parents' counselling, as well as measuring the programme's effectiveness, cannot be over-emphasised. However, reliable and valid assessment must be based on careful observation and rating scales. Due to the inadequacy of assessment facilities in the countries under discussion, the programme may utilise external support.

The abnormal characteristics demonstrated by autistic children make teaching these children extremely difficult. The teacher profiles in both countries will mean that establishing an educational programme will be a cumbersome challenge.

The studies reviewed in this chapter suggest that the provision of parent training and early specialized schooling will result in a variety of social, language, motor and academic improvements. In consequence, the programme will focus on early intervention and on parents as co-partners and co-therapists.

In Kuwait, the care of disabled children is undertaken by many

government institutions as well as NGOs. It is scattered, unplanned and disintegrated. However, in the last decade a growing concern by the private and voluntary sectors to care for disabled children was noticed, which is a positive sign for the programme's successfulness.

Though the national plan for reform and development has emphasised the need 'to care for the disabled and to provide them with the required social and psychological care and to establish programmes for rehabilitation in order to mainstream them within the society', nevertheless the accomplishment of such objectives is far from being realised in Kuwait. The public organisations have been deficient in providing the needed services and lack the necessary vision and planning with regard to caring for autistic children. Though the efforts of NGOs in educating autistic children are appreciated, nevertheless, they lack the necessary focus and dedication to create the necessary impact. Both public and NGOs lack an appropriate programme for educating autistic children. Such shortcomings give rise to a need to develop a specific educational programme, which is the theme of this research. Bearing these problems in mind, we can now turn to look at responding to Question No.9 (p.83) which enquires about the needs that the programme should address.

CHAPTER FIVE: RESEARCH METHODOLOGY AND DATA ANALYSIS

The process of educating and training children with autism or other severe impairments typically includes four basic steps, namely, (1) assessment of needs, (2) programme design and development, (3) programme implementation, and (4) evaluation. In this chapter, we will be assessing the contents of the programme by examining the children's needs as perceived by parents. The chapter begins by describing the research methodology, and an analysis of the collected data follows. This chapter explains the methodology used in conducting the research under three headings: Data Source and Instruments, Data Collection Procedures and Data Analysis.

Methodology has to deal with the organization of assumptions, concepts and definitions, leading to a systematic inquiry. In any research, the methodology used should be orchestrated to fit the actual needs of the research and the conditions prevailing. The methodology utilized in this study is a combination of descriptive surveys and empirical research.

5.1 Data Sources and Instruments

This study has three data sources: publications and official documents, a questionnaire survey and a set of interviews. Furthermore, statistical data will be used to explain the different aspects of the study.

5.1.1 Publications and Official Documents

The review of publications has covered many areas of interest, focusing primarily on the areas of special needs education, and studies on children with autism in Kuwait. Official documents and reports have been helpful since the literature on such topics is scarce. It is worth mentioning that most of these documents were in Arabic and all quotations have been translated into English by the author with all their inherited deficiencies.

5.1.2 Questionnaire

A one-form questionnaire has been designed and validated to solicit information for the design of educational programmes for children with autism. The questionnaire was designed to be administered to the parents of autistic children. Parents were selected as the target group because they are able to assess accurately both their children's current development levels and their needs (Schopler et al, 1984). Furthermore, Quill (1995:5) indicated that 'parents carry the major responsibility for supporting their child's development, any discussion about intervention must take into account the family's perspective on education'. The necessary intervention cannot be provided without knowing the family priorities, concerns and expectations (Shriver et al, 1993). The questionnaire was prepared carefully, taking into consideration all important and relevant factors in questionnaire design, such as the ones described by Isaac and Michael (1971:92-3).

The questions were structured and designed on a review of the relevant literature and expert opinion. Careful consideration was given to the wording of the questions in order to avoid ambiguity and ensure consistency. Later, the questionnaire was reviewed by a number of experts and necessary amendments made. The questionnaire survey was chosen and used to collect information which would allow the researcher to indicate the major components for the educational programme for children with autism.

5.1.2.1. The questionnaire - design and structure

The questionnaire was designed to include the major factors and educational components of the programme. In addition, general information about the respondents was solicited so that it would be possible through analysis to distinguish the major variables and their significance. The first part of the questionnaire sought general information concerned with the major variables examined. In the second part, questions were formulated to elicit facts related to the research areas. The structure of the questionnaire is as follows:

A. general information about the parents: Questions 1-4;

B. general information about the child: Questions 5-7;

C. general information about the programme the child has attended: questions 8-10;

D. child's needs: questions D1-D12 (to solicit information about different needs of the child from the parents' perspective);

E. programme implementation: questions E1-9 (to seek to understand factors for effective programme implementation);

F. support services: questions F1-F3 (to enquire about major support services which parents expect to be provided by the programme).

5.1.2.2. Sample and Sample Procedures

The population for this questionnaire is all the parents of children diagnosed as autistic in Kuwait and Saudi Arabia that the researcher could reach.

A study by the Ministry of Public Health indicates that 123 children have been so diagnosed in Kuwait (MPH, 1996). This was considered as the population for Kuwait. For Saudi Arabia, such information is lacking and the researcher tried to estimate that population. The incidence of autism is 3-4 for each 10,000 of the general population (Wing, 1993). Jeddah had a population of approximately 1 million in 1995, with children under 15 years representing 45%. It is estimated that the number of children with autism will be 1,000000 x 3/10000 x 45% = 135, if we consider that the autistic syndrome occurs in 3 cases in each 10,000 of the population. This can only be considered as a rough estimate.

The questionnaire is a two-page survey, comprising 24 itemised questions and a further ten questions seeking general information from the respondents. The questionnaire was distributed in Arabic but an English version is given in Appendix 1.

5.1.2.3. Validity and Reliability

A. Validity

To measure the validity of the questionnaire, content validity was used. This is the 'degree to which a test measures an intended content area' (Gay, 1976:88). Hatch and Farhady (1982:251) suggest that to establish content validity, the test items must be carefully defined and should cover the full range of the concepts they are meant to evaluate or measure. In this regard, one may ask qualified expert(s) to determine such validity after carefully designing the questionnaire.

Though it is normally considered desirable to administer a pilot test, in this study the small size of the sample and the preoccupation of parents did not allow for both a pilot test and, later, a full-scale survey. Van Palen (1979:136) suggests as an alternative that one may ask qualified experts to rate test items as to their importance. The questionnaire was referred to a group of six specialists in field surveys, evaluation and special education, to examine the content validity of the items within the questionnaire. The items were rephrased according to the comments of the referees. The names of the referees are given in Appendix-2.

B. Reliability

A test is reliable when it provides consistent measures in comparable situations. The reliability of the questionnaire was calculated by measuring the reliability coefficient using the SPSS package. The Cronbach's alpha value was .7246, a satisfactory value which gave the researcher reasonable confidence in the questionnaire and its results.

In addition, certain steps were followed to ensure reliability of the questionnaire including:

    i)   that the questionnaire had a central topic;

ii)   that the questionnaire sought only information which could not be obtained from non-survey data;

iii)   that it requested data essential only to the subject matter;

iv)   that the questions were objectively constructed, with no hint of desired response;

v)   that the questions were presented in a logical order proceeding from needs to support services.

5.1.3 Interviews

Personal interview is an effective method for use in education survey research. It allows the researcher to conduct an in-depth investigation, obtain critical information and evaluate complicated issues such as those involved in research into autism.

The semi-open ended structured format was chosen and used because of its ability to provide extensive information about evaluating the effectiveness of the proposed programme and identify the means to mprove it. Since the number of parents involved in the interview is small, open-ended questions give richer data than closed.

The researcher conducted interviews with three categories of individuals.

1.   With parents of autistic children who are currently enrolled in the programme. The purpose of the interviews was to solicit the views on the effectiveness of different components of the programme and assess the progress of their child. These interviews were conducted with 11 parents. The researcher prepared a set of 12 semi-open ended questions. For convenience of the interviewee, the questions were administered in Arabic. An English version is attached (see Appendix 3).

2.   With teachers of the programme, the purpose was to evaluate the

programme's effectiveness from different perspectives. These interviews were conducted with 14 teachers. The researcher prepared 16 semi-open ended questions. For convenience of the interviewee, the questions were administered in Arabic, but an English version is attached (see Appendix 4).

During the preparation of the interview questions for both parents and teachers, it was decided to have 9 common questions. The purpose of having such common questions is to enable the researcher to compare the responses of parents to those of teachers on common concerns and basic components of the programme.

3.   With prominent scholars and practitioners to evaluate the programme's efficiency and suggest ways and means to enhance it. These interviews were carried out with five scholars and practitioners in the field of special education, especially with reference to autistic children.   They were selected according to the following criteria:

A.   they were involved in designing or managing educational programmes for autistic children; and

B.   they had credibility and in-depth knowledge about the needs of autistic children, having served in different areas of care for such children.

The researcher prepared a set of 24 open-ended questions which were rephrased to eliminate ambiguities and inadequate wording (see Appendix 5). These questions cover a wide spectrum of issues relevant to the preparation of an educational programme.

Personal interviews were used due to the lack of literature relating to autistic children in oil rich countries. Moreover, the interview technique was used to permit greater in-depth evaluation of essential components of the programme and to give the researcher the chance to obtain more comprehensive information through direct interaction and lively discussion.

Though it is a useful tool to permit greater depth as well as obtaining more complete data, the personal interview has limitations and problems. These include:

1. it is a time-consuming process;

2. it may introduce the problem of subjectivity and personal bias, and requires trained interviewers;

3. in a conservative society like Kuwait, respondents may not be open or may seek to please the interviewer.

In order to overcome these problems, the researcher tried to use the following:

1. a well-defined interview structure with objective questions, allowing clarification and elaboration within narrow limits; and

2. well-trained interviewers who would be outsiders with no interest on answers, to ensure objectivity.

5.2. Data Collection Procedures

5.2.1. Publications and Official Documents

Many publications were identified and traced using various computerized indices and information networks, such as Dialogue. Official documents and reports were collected from the relevant government organs and other non-governmental organizations in Kuwait as well as other countries. Some of these documents were difficult to obtain as they were available for limited circulation only and the majority had to be traced and located.

5.2.2. Questionnaire

A total of 100 survey forms constituting the sample was distributed. Ninety-five questionnaires were returned, 92 of them completed. The completed questionnaires represent a return rate of 92% of the sample (Table 5.1). The high percentage of completed questionnaires gives us confidence that the

sample is an accurate representation of the two countries' populations and that we can depend on its result.

Table 5.1

	Population	Sample	Sample as % of Population	Completed Questionnaire	% of the sample
Kuwait	123	58	47.15	54	93.1
Saudi Arabia	135	42	31	38	90.5
Total	258	100	38.76	92	92

5.2.3 Interview

Before the interview, the interviewer explained to each interviewee the purpose of the interview, fixed its date, and provided the interviewee with a copy of all the questions that would be asked.

The researcher used the journal note-taking technique. These notes were then revised and typed as a document to be used for this study and for future research.

5.3 Data Analysis

5.3.1 Questionnaire Analysis

The questionnaire forms in this study were edited and coded. The analyses were carried out on a personal computer, using the Statistical Package for the Social Sciences Extended Programme Package (SPSS-X).

To test the factors contributing to the design of the programme, means, standard deviations and frequency distributions were obtained. On most items, percentages checking the various response options were calculated. Differences were tested for significance by a mean one-way ANOVA Test at

0.05 significance, using Scheffe'([1]). These results are specified in more detail in the subsequent section, which summarises the outcomes of the questionnaire analysis.

The variables examined in this research are:

1.   father's education status - respondents to the questionnaire were analysed according to their level of education (below high school to graduate level);

2.   father's age - respondents to the questionnaire were analysed according to their age (below 30 to over 40 years);

3.   mother's education status - respondents to the questionnaire were analysed according to their level of education (below high school to graduate level);

4.   mother's age - respondents to the questionnaire were analysed according to their age (below 30 to over 40 years);

5.   child's age - respondents to the questionnaire were analysed according to child's age (0-18 months to 11-15 years);

6.   location where diagnosed - response to the questionnaire was analysed according to location (inside, outside the country or both);

7.   age when diagnosed - respondents to the questionnaire were analysed according to the age at which the child was diagnosed (less than 5 years to more than 8 years);

8.   location of the programme attended - respondents to the questionnaire were analysed according to location of programme attended (Kuwait, Arab countries, other countries);

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[1]   T-Test (two variables) and one way ANOVA is used to test the quality of two or more sample means and thus infer as to whether the sample comes from the population having the same means. Under certain conditions, it is better to use Scheffe since it is more conservative.

9.   duration of programme attended - respondents to the questionnaire were analysed according to the number of years they attended the programme (from less than 1 year to more than 3 years); and

10.   child's progress - responses to the questionnaire were analysed according to children's progress in the programme they attended (from excellent to poor).

In order to ascertain the reliability of data collected through one-way ANOVA, the researcher, with the same data, also calculated the chi-square and tested its significance at the 0.05 level. The comparison of outcomes of both tests indicate only very minor differences when both one-way ANOVA and chi-square procedures were applied. As indicated in Table 5.2, both procedures led to the similar result 93% of the time.

Table 5.2

Comparison between administering one-way ANOVA
and Chi-sequence test at 0.05 significance

	One-way ANOVA and Chi-Square Agreement	One-way ANOVA and Chi-Square disagreement
Number of times	223	17
Percentage	92.92%	7.08%

5.3.2. Interview Analysis

Every question in each interview was analysed and compared with other responses. The conclusions from this analysis are presented in Chapter Eight. Any points worth elaboration which were mentioned during the interview will be highlighted and reported later in the thesis.

5.4 Sample Profile

In addition to its importance to the analysis of the questionnaire responses, the analysis of parent profiles is essential since studies indicate that parent participation is positively correlated with family income and mother's and father's education (Wood, 1995). In our questionnaire, we included both the father's and the mother's education, as well as their age, as relevant factors in an indicative profile of the parents. We avoided enquiring about family income due to the sensitivity of this issue within the national culture.

Sample distribution according to education level of the father

Table 5.3 shows that the education level of the fathers of autistic children was high: 86% were educated to high-school level and above. This is likely to make them more understanding and responsive to the service that will be provided by the programme. Furthermore, it should lead to better awareness of the condition and understanding of the information that will be disseminated.

Table 5.3

Sample distribution according to education level of the father

	Below High School	High School	University	Graduate Degree	Total
Kuwait	11	10	28	5	54
Saudi Arabia	2	10	18	8	38
Total	13 14.1%	20 21.7%	46 50%	13 14.1%	92 100%

Sample distribution according to age of the father

Table 5.4 shows that majority of the fathers were 30 years and above, which means that this was most likely not their first child. The average age of marriage for women and men in Kuwait in 1990 was 22.4 years and 25.2 years respectively, while it was 21.7 years and 25.5 years in Saudi Arabia (UNDP, 1995: 64). If parents have other children, they are likely to have a better

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understanding of normal childhood development, and so be better equipped to notice any kind or degree of handicap. Parents of this age may also have greater maturity than younger ones, and so show a high level of dedication to the child.

Table 5.4

Sample distribution according to age of the father

	Below 30 years	30-40 years	Over 40 years	Total
Kuwait	3	29	22	54
Saudi Arabia	-	13	25	38
Total	3 3.3%	42 45.7%	47 51.1%	92

Sample distribution according to education level of the mother

Table 5.5 shows the education level of mothers. Like fathers, most (more than 78%) had education to high-school level and above, though compared with the mothers' education level, the fathers' was higher. This difference in education between males and females is attributed to the general trend in both countries to limit women's education. In the society as a whole, females have less access to education than males. Statistics indicate that in 1990, females' enrolment in education was 5-20% lower than that of male (UNDP, 1995: 66-7).

Table 5.5

Sample distribution according to education level of the mother

	Below High School	High School	University	Graduate Degree	Total
Kuwait	10	15	28	1	54
Saudi Arabia	10	12	12	4	38
Total	20 21.7%	27 29.3%	40 43.5%	5 5.4%	92

The analysis of the education profiles of the parents and its impact on early diagnosis for their child (Table 5.6) indicates that parents with less education were less aware of autism and consequently were not able to obtain early diagnosis of the syndrome. As indicated in table 5.6, 56% of parents whose children were diagnosed at age 5-8 years, had high school qualification or below while their representation in the sample was 43% (tables 5.3 and 5.5). Since the sample is too small to tell, such trend is suggestive only.

Table 5.6

Analysis of Parents profile of whose
children were diagnosed between 5-8 years

	Below High School	High School	University	Graduate Degree
Father Education	4	4	5	3
Mother Education	6	4	3	3
Total	10	8	8	6
Percentage	31%	25%	25%	19%

Sample distribution according to age of the mother

Table 5.7 shows that 85% of the mothers were 30 years and above, which suggests greater possible maturity and dedication to the child. A study has shown that the age of the mother or father has no significance when compared with the child's sex, time and place of birth, and social group (Mouridsen et al, 1993). Nevertheless, it could be an important factor in the involvement of the mother in parent education and support groups.

Table 5.7

Sample distribution according to age of the mother

	Below 30 years	30-40 years	Over 40 years	Total
Kuwait	11	28	15	54
Saudi Arabia	6	26	6	38
Total	17 18.5%	54 58.7%	21 22.8%	92

Sample distribution according to age of the child

As shown in Table 5.8, the majority of the children (81.6% of the sample) were 3-11 years old, which is sufficiently old to benefit from an education programme. In addition, studies show that most characteristics of autism prevail and are more obvious when the child is 2-6 years old (Wing, 1986; Gillberg and Coleman, 1992).

Table 5.8

Sample distribution according to child age

	0 - 18 months	18 months - 3 years	3 - 5 years	5 - 7 years	7 - 11 years	11 - 15 years	Total
Kuwait	-	2	13	12	22	5	54
Saudi Arabia	2	-	3	6	19	8	38
Total	2 2.2%	2 2.2%	16 17.4%	18 19.6%	41 44.6%	13 14.1%	92

Sample distribution according to location where diagnosed as autistic child

Table 5.9 shows the distribution of the sample according to the location where the child was diagnosed as autistic. The figures shows that 61% of the sample were diagnosed inside the home country while 13% were diagnosed outside.

Since 61% have been diagnosed inside the country (Table 5.9) and taking into consideration the possible inadequacy of assessment capacity in both countries under review, this may necessitate the programme screening the applications again and making fresh assessment of those who have been diagnosed autistic inside the country.

Table 5.9

Sample distribution according to location where diagnosed as autistic

	Inside the country	Outside the country	Both inside and outside	Total
Kuwait	35	4	15	54
Saudi Arabia	21	8	9	38
Total	56 60.9%	12 13%	24 26.1%	92

Sample distribution according to age at which the child was diagnosed

Table 5.10 shows the distribution of the sample according to the age at which the child was diagnosed. According to the table, 79% of the children were diagnosed at less than 5 years, i.e. below school age, while 17.4% were diagnosed at 5-8 years. Most parents start feeling concerned about their children when they reach around 1-1.5 years and show language and social retardation. A study by Siegal et al (1988) indicates that parents in the USA began diagnostic assessment when the child was an average of 2.5 years of age and received a diagnosis of autism at an average of 4.5 years of age.

Table 5.10

Sample distribution according to the age at which the child was diagnosed.

	Less than 5 years	From 5-8 years	More than 8 years	Total
Kuwait	49	5	-	54
Saudi Arabia	24	11	3	28
Total	73 79.3%	16 17.4%	3 3.3%	92

Sample distribution according to the location of the programme attended

Table 5.11 shows the distribution of the sample according to the location of the programme attended. Fifty-nine per cent of the sample reported that their children attended the programme in the home country and 6.6% attended external programmes.

The high percentage of missing cases (almost 35%) is due to the fact that the children of many of those who responded to this question had not attended any programme, because none was available. This also accounts for the high percentage of missing cases in tables 5.12 and 5.13.

Table 5.11

Sample distribution according to location of the programme he/she attended.

	In the country	In the U.K.	In Arab countries	In other countries	Missing reply	Total
Kuwait	31	2	1	-	20	54
Saudi Arabia	23	1	1	1	12	38
Total	54 58.7%	3 3.3%	2 2.2%	1 1.1%	32 34.8%	92

Sample distribution according duration of the programme attended

Table 5.12 shows the distribution of the sample according to the duration of the programme the child attended. The figures show that almost 17.4% attended a programme of less than 1 year's duration while 28.3% attended a programme of between 1-3 years. Such variety increases the usefulness of the responses since the sample reflects different backgrounds and exposures to different programmes, enabling parents to evaluate the needs of their children from a variety of perspectives.

Table 5.12

Sample distribution according to duration of the programme attended.

	Less than 1 year	1 - 3 years	Missing replies	Total
Kuwait	8	20	26	54
Saudi Arabia	8	6	24	38
Total	16 17.4%	26 28.3%	50 54.3%	92

Sample distribution according to progress of the child in the programme he/she attended

In Table 5.13, many of missing replies (though not all) reflect the number of children who did not attend any programme. Furthermore, the data indicate that the programmes attended by children in Kuwait were apparently less successful than those attended by the children in Saudi Arabia.

Table 5.13

Sample distribution according to progress in the programme attended

	Excellent	Satisfactory	Poor	Missing replies	Total
Kuwait	6	13	14	21	54
Saudi Arabia	16	5	2	15	38
Total	22 (23.9%)	18 (19.6%)	16 (17.4%)	36 (39.1%)	92

5.5. Questionnaire Analysis

In the programmes available, the overall curricular programme areas are identical, their scope and sequence differ depending on individual needs. The aim of this questionnaire is to assess the significance of such needs and to arrange them according to their priority from the parents' perspective. Respondents were asked to answer questions by reference to a 4-point rating scale varying from strongly agree to disagree. Table 5.14 gives a summary of the responses, with their ranking according to perceived importance within each of the three parts of the questionnaire and also within the whole questionnaire.

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THE ORIGINAL THESIS

Table 5.14

Summary of the questionnaire responses

No.	Need	Strongly agree		Agree		No opinion		Disagree		Average	Rank within Group	Rank within total
		Frequency	%	Frequency	%	Frequency	%	Frequency	%			
D1	The development of fine & gross motor skills (such as throwing/holding/writing, etc.)	46	50.1%	31	33.7%	8	8.7%	7	7.6%	3.26	12	21
D2	Training the child to sit down to study for longer periods	75	81.5%	13	14.1%	4	4.4%	-	-	3.76	4	7
D3	Training to display appropriate behaviour in various situations	83	90.2%	9	9.8%	-	-	-	-	3.90	1	1
D4	Training to respond appropriately to audio-visual stimuli	64	69.6%	26	28.3%	2	2.2%	-	-	3.67	7	12
D5	Toilet training for your child	61	66.3%	18	19.6%	1	1.1%	12	13.0%	3.39	11	20
D6	Training to eat in acceptable manner	56	60.9%	26	28.3%	3	3.3%	7	7.6%	3.42	10	19
D7	Training to write basic vocabulary	72	78.3%	17	18.5%	2	2.2%	1	1.1%	3.74	5	8
D8	Training to use a suitable communication method (Verbal or Non-verbal) that suits his/her needs	84	91.3%	7	7.6%	1	1.1%	-	-	3.90	1	1
D9	Modification of unacceptable behaviour, such as aggressive behaviour	58	63.0%	25	27.2%	6	6.5%	3	3.3%	3.50	9	17
D10	Development of independent skills	71	77.2%	21	22.8%	-	-	-	-	3.77	3	6
D11	Development of functional skills for future use in the community	69	75.0%	18	19.6%	5	5.4%	-	-	3.70	6	11
D12	The enjoyment of leisure time activities and the company of others	61	66.3%	29	31.5%	2	2.2%	-	-	3.64	8	13

Table 5.14 (contd.)

No.	Need	Strongly agree		Agree		No opinion		Disagree		Mean	Rank within Group	Rank within total
		Frequency	%	Frequency	%	Frequency	%	Frequency	%			
E1	The programme should be conducted in English	71	77.2%	19	20.6%	-	-	2	2.2%	3.73	4	9
E2	The programme should be conducted in Arabic	7	7.6%	48	52.2%	9	9.8%	28	30.4%	2.37	12	24
E3	The programme should be conducted in both Arabic and English	27	29.3%	39	42.4%	16	17.4%	10	10.9%	2.90	10	22
E4	The programme includes physical education	54	58.7%	31	33.7%	5	5.4%	2	2.2%	3.49	9	18
E5	The programme includes music lessons	33	35.9%	30	32.6%	9	68.5%	20	21.7%	2.83	11	23
E6	The programme includes art lessons	67	72.8%	25	27.2%	-	-	-	-	3.73	4	9
E7	The programme includes lessons to teach basic prayers and reciting short verses from the Holy Quran	54	58.7%	32	34.8%	5	5.4%	1	1.1%	3.51	8	16
E8	The programme includes outdoor visits to familiarize the children with their environment	77	83.7%	12	13.0%	2	2.2%	1	1.1%	3.79	3	5
E9	Daily or weekly progress reports should be sent to the parents about their child's development	78	84.8%	14	15.2%	-	-	-	-	3.85	1	3
F1	Parent awareness programme (lectures/ conferences/training courses, etc.)	76	82.6%	16	17.4%	-	6.5%	-	-	3.83	2	4
F2	Periodic parent meetings to discuss their children's needs, problems, etc.	64	69.6%	22	23.9%	6	2.2%	-	-	3.63	6	14
F3	Entertainment programmes after school hours or during vacations	61	66.3%	28	30.4%	2	96.7%	1	1.1%	3.62	7	15

In the following pages each question within the questionnaire will be analysed separately and its implications will be identified in order to assess children's needs from the parents' perspective.

After calculating the mean of each question, within each of 10 independent variables, a T-test or one-way ANOVA was used to assess the quality of two or more sub-group means within each independent variable. For example, for the father's age (independent variable), a one-way ANOVA test was run to check for any significant difference among the means of the three sub-groups (below 30 years, 30-40 years, over 40 years).

Such testing was carried out for all questions from D1 to F3. In the report of the findings which follows, if any significance was revealed by the one-way ANOVA, it is reported in the relevant table as YES, and the necessary explanation (if any) given in the text. If no significant difference was found among the means of sub-groups, it is reported in the tables as NO, and no further explanation given.

5.5.1 Questions related to the Child's Needs
Question No.D1

Contrary to the early findings of Kanner (1943) and Rimland (1964), later researchers indicate that autistic children are significantly delayed in their motor skills (Demyer et al.,1981; Wenar et al.,1986). As indicated by Piaget (1969) and Wenar et al (1986), the importance of motor skills lies in the fact that all forms of higher learning may be based on early motor experiences within the environment. In order to examine their attitudes toward this need, the parents were asked to evaluate the following:

"The development of fine & gross motor skills (such as throwing/holding/ writing, etc.)"

Table 5.15

Mean	Standard Deviation
3.26	0.912

Significant at 0.05 level

	Father's educa- tion	Father's age	Mother's educa- tion	Mother's age	Child's age	Diag- nosis loca- tion	Diag- nosis age	Progra- mme's loca- tion	Progra- mme's dura- tion	Progress
F Value	.157	.3653	.5996	.6001	.3178	.087	.0727	.6731	.988	.6648
Signi- ficance	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

This need was appreciated greatly by the parents of autistic children. The lack of statistically significant differences suggests a reasonable consensus among the sample in recognising the importance of this need. This item is a major component of many programmes for autistic children, such as the Higashi School Programme (Daily Life Therapy) and TEACCH, as discussed earlier.

Question No.D2

One of the major prerequisites for effective learning is the ability of the child to sit down in the class room for a reasonable period. Some of the medical conditions associated with autism, such as Rett's syndrome, may lead to abnormalities of the spinal column, with skewing of the whole back. This may lead to a situation where the child is not able to sit for long periods of time (Gillberg and Peeters, 1995). This need is exaggerated by the fact that autistic children resist learning new skills (Wing, 1986). The following item examines the parents' perceptions of the importance of this aspect of the proposed programme.

"Training the child to sit down to study for longer periods"

Table 5.16

Mean	Standard Deviation
3.76	0.562

Significant at 0.05 level

	Father's educa-tion	Father's age	Mother's educa-tion	Mother's age	Child's age	Diag-nosis loca-tion	Diag-nosis age	Progra-mme's loca-tion	Progra-mme's dura-tion	Progress
F Value	.0616	.5087	.5941	.5170	.9183	.8534	.8024	.4155	.602	.2660
Signi-ficance	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

The perceived need for such a skill had a mean score of 3.76. The lack of significant differences among sub-groups suggests a general consensus among the sample toward this assumption. This was in concurrence with the recommendation of the panel of experts and other programmes which emphasise the need to train the child to sit for longer periods.

Question No.D3

The need to display appropriate behaviour has been emphasised by many studies (Bouma and Schweitzer, 1990; R.L. Koegel, Schreibmen et al, 1992). In addition, the lack of such appropriate behaviour is a major factor in the increased stress for the family (Moes, 1995). The following item evaluated the desire for such need.

"Training to display appropriate behaviour in various situations"

Table 5.17

Mean	Standard Deviation
3.90	0.299

Significant at 0.05 level

	Father's education	Father's age	Mother's education	Mother's age	Child's age	Diagnosis location	Diagnosis age	Programme's location	Programme's duration	Progress
F Value	.9801	.8369	.2507	.4722	.3343	.6955	.3553	.8728	.166	.0131
Signi- ficance	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES*

* Significant at 0.05 with Chi-square

This need is a big concern for parents of autistic children since it has a mean of 3.90, the highest average for all items (Table 5.16). The analysis of the questionnaires indicates that 70% of the parents consider it a very important component while 28% find it important. The importance of displaying appropriate behaviour within the families of autistic children is due to the fact that awareness of autism is rare in Kuwait and Saudi Arabia. Any display of misbehaviour will cause a great embarrassment to the family (Wing, 1986). The programme should therefore address this need and include it as one of the basic objectives. Interestingly, parents who experienced excellent progress of their children in the programme attended responded more favourably to this question. This may indicate that these parents equated level of progress to the reduction of displays of misbehaviour than did others.

Question No.D4

Autistic children are over-selective, responding only to a limited amount of the sensory information in their environment (Schreibmen et al, 1986). Since audio-visual stimuli are an important component of the learning process as well as essential for the daily life of the child, an item was included to test the necessity of

"Training to respond appropriately to audio-visual stimuli"

Table 5.18

Mean	Standard Deviation
3.67	0.516

Significant at 0.05 level

	Father's education	Father's age	Mother's education	Mother's age	Child's age	Diagnosis location	Diagnosis age	Programme's location	Programme's duration	Progress
F Value	.5634	.9915	.5991	.9635	.3305	.4063	.0824	.4453	.843	.0717
Significance	NO	NO	NO	NO	NO*	NO	NO	NO	NO	NO

* Significant at 0.05 with Chi-square

This need was appreciated by the parents, with a mean score of 3.67. The lower approval rate than that given to other questions may be attributed to lower parent awareness about the significance of this factor in the learning process. Furthermore, some parents may not have understood the full meaning of the statement. This need will be included in the programme, utilizing the different techniques, such as facilitated communication.

Question No.D5

The importance of basic health education and skills training, especially toilet training was emphasised by many studies (NCC, 1990a, Wing, 1986). The following item examined the necessity of:

"Toilet training for your child"

Table 5.19

Mean	Standard Deviation
3.39	1.027

Significant at 0.05 level

	Father's education	Father's age	Mother's education	Mother's age	Child's age	Diagnosis location	Diagnosis age	Programme's location	Programme's duration	Progress
F Value	.2783	.8795	.2113	.6271	.7844	.1788	.6450	.6930	.392	.8912
Significance	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

It seems that this was of less concern to the parents compared to other items, since the mean was 3.39. The lower mean may be attributed to the fact that those children old enough (more than 5 years), who constituted 78.3% of sample had already been trained. The high standard deviation (1.027) reflected considerable variation in responses.

Question No.D6

Autistic children may exhibit bizarre behaviour, especially in the way they eat their meals, since they have difficulty in controlling the movement of muscles involved with chewing the food (Wing, 1986). The following item assessed the necessity for training in this area from the parents' perspective.

"Training to eat in acceptable manner"

Table 5.20

Mean	Standard Deviation
3.42	.880

Significant at 0.05 level

	Father's education	Father's age	Mother's education	Mother's age	Child's age	Diagnosis location	Diagnosis age	Programme's location	Programme's duration	Progress
F Value	.4797	.5196	.7370	.5875	.5332	.0963	.5770	.3951	.905	.2072
Significance	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

In comparison to other responses, this item had a lower mean score of 3.42. Though it received lower approval from parents, such a need has been emphasised by experts. Many programmes stress its importance by including it in their curriculum or syllabus through the activity of eating together. As with the previous questions, the emphasis on this component depended on the age group. The high standard deviation of 0.880 reflects such diversity in the responses. Furthermore, such problems are rare, can be managed easily by the family and are not likely to result in any harm to the child (Wing, 1986). Consequently, this component may be emphasised for classes of younger children rather older ones, or could be tackled through the individualized education plan.

Question No.D7

The increased use of writing as a mean of communication necessitates that autistic children learn how to write basic vocabulary. Research indicates that early intervention with more advanced communication techniques and instruments, 70% of non-verbal autistic children could witness considerable improvement in their communication (L.K. Koegel, 1995). The following item assesses the need for the skill, from the parents' viewpoint.

"Training to write basic vocabulary"

Table 5.21

Mean	Standard Deviation
3.74	0.552

Significant at 0.05 level

	Father's educa-tion	Father's age	Mother's educa-tion	Mother's age	Child's age	Diag-nosis loca-tion	Diag-nosis age	Progra-mme's loca-tion	Progra-mme's dura-tion	Progress
F Value	.8221	.7064	.5496	.9533	.4549	.3729	.4373	.4603	.427	.3236
Signi-ficance	NO	NO	NO	NO	NO*	NO*	NO*	NO	NO	NO

* Significant at 0.05 with Chi-square

This need was highly appreciated by the parents, with a mean of 3.74.

Question No.D8

Rutter (1983) suggests that autism is characterized by a cognitive disability in processing social means. The DSM-V definition of the condition includes delayed or deviant use of language (APA, 1994). Rutter indicates that 50% of autistic children never develop functional speech (Rutter, 1978), demonstrating a huge need for suitable communication methods due to their impact on social interaction (Fay and Schuler, 1980; Gillberg and Peeters, 1995). In addition, the lack of appropriate means of communication may lead to specific disruptive behaviour (Schreibman, Koegel and Koegel, 1989). Moes (1995) argued that intervention that facilitates communication may reduce parenting stress related to a high level of disruptive behaviour. The following item addresses the importance of such need from the parents' perspective.

"Training to use a suitable communication method (Verbal or Non-verbal) that suits his/her needs"

Table 5.22

Mean	Standard Deviation
3.90	0.333

Significant at 0.05 level

	Father's educa-tion	Father's age	Mother's educa-tion	Mother's age	Child's age	Diag-nosis loca-tion	Diag-nosis age	Progra-mme's loca-tion	Progra-mme's dura-tion	Progress
F Value	.2462	.3178	.7512	.3844	.163	.8984	.4368	.9164	.940	.2455
Signi-ficance	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

This component and the need to display appropriate behaviour both scored 3.90, the highest mean among all responses. This is a universal and continuous need, whatever the child's age, level or previous training. The

programme will accommodate individually the need of each child. This has also been suggested by the panel of experts.

Question No.D9

Autistic children may display bizarre, unacceptable behaviour. This may include aggression, either self-directed or against another individual (Wing, 1986). The following items examine the parents' perception of the need for modification of such behaviour.

"Modification of unacceptable behaviour, such as aggressive behaviour"

Table 5.23

Mean	Standard Deviation
3.50	.763

Significant at 0.05 level

	Father's education	Father's age	Mother's education	Mother's age	Child's age	Diagnosis location	Diagnosis age	Programme's location	Programme's duration	Progress
F Value	.1246	.4684	.3676	.5127	.4825	.5145	.0709	.9309	.667	.0272
Significance	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES

When we compare the responses to this statement to those for statement D3, this need scored a lower mean of 3.50 compared to 3.9 for question D3. This is due to the fact that the majority of autistic children do not display appropriate behaviour. Nevertheless, it is a lower percentage of the children that have aggressive behaviour. This may explain the lower responses. Similarly to question D3, parents who experienced excellent progress of their children in the programme attended responded more favourably to this question. This supports our assumption that parents measure the level of progress by the reduction of severe behaviour.

The discrepancy between the child's normal appearance and the misbehaviour s/he displays may lead outsiders to question the parents' competence (Gray, 1993). This also add to the parents' frustration and stress. The programme may focus on teaching pivotal behaviour central to wide areas of the child's functioning. Carr and Durand (1985) indicated a considerable reduction in disruptive behaviour when children were taught functional communication. As a result, despite the lower mean score of this item, the need to modify unacceptable behaviour is regarded as essential for the parents and to the programme.

Question No.D10

The preparation of children for independent adult life is seen as a major objective in educating handicapped children (Carpenter, 1993). In this regard, emphasis could be put on those skills which the child needs most as an autistic child, such as care and maintenance of living quarters, cooking, money handling and the use of community facilities (Bud Fredericks et al, 1983; Gillberg and Peeters, 1995). The following item assesses the need for such skills from a parental perspective.

"Development of independent skills"

Table 5.24

Mean	Standard Deviation
3.77	.422

Significant at 0.05 level

	Father's educa- tion	Father's age	Mother's educa- tion	Mother's age	Child's age	Diag- nosis loca- tion	Diag- nosis age	Progra- mme's loca- tion	Progra- mme's dura- tion	Progress
F Value	.0681	.2192	.8341	.9868	.7171	.4479	.5320	.5063	.525	.7501
Signi- ficance	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Though it was expected that the parents would approve this to a lesser rate than other needs, the mean was high at 3.77. The expectation of low responses was envisaged due to the relatively low value placed on independence in Kuwaiti and Saudi Arabian culture. In addition, lower responses were expected as a result of the prevailing norm that families in both the countries do not allow for substantial independence of the child from his/her family. Furthermore, disinclination for such independence increases with the availability of domestic helpers, which are plentiful both in Kuwait and Saudi Arabia. However, the appreciation of the parents of such a need arises from the feeling that as the child gets older, s/he should be more independent since it will become difficult for family members or maids to accommodate the autistic child's needs (i.e. feeding, clothing, etc.).

Question No.D11

Autism is a permanent disability and hence further training and development of functional skills are needed to absorb the child within the home and the community. Children could be taught simple domestic skills (Wing, 1986). Gorski (1983) indicates the ability of persons with autism to perform meaningful work in a non-sheltered environment. However, such ability is limited to a few. Ten or at most twenty per cent of autistic children may be able to support themselves as adults and to live an independent life (Lotter, 1978). The following item examines the parents' perspective of the need for help in this regard.

"Development of functional skills for future use in the community"

Table 5.25

Mean	Standard Deviation
3.7	0.569

Significant at 0.05 level

	Father's educa- tion	Father's age	Mother's educa- tion	Mother's age	Child's age	Diag- nosis loca- tion	Diag- nosis age	Progra- mme's loca- tion	Progra- mme's dura- tion	Progress
F Value	.4425	.8099	.8157	.966	.4576	.0862	.0742	.6573	.650	.5127
Signi- ficance	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

This item was appreciated by the parents with a mean of 3.7. In addition, the panel of experts emphasised the need to develop such a skill.

Question No.D12

Simpson et al (1991) indicated the importance of highlighting specific social-skills deficits in autistic children. Such children display a significant and pervasive deficits in the acquisition of adaptive social skills (Rodrigue et al, 1991). This leads to further isolation from and limited interaction with others. Furthermore, the relationship between special education and training for the use of leisure time in recreation is frequently ignored (Wehman, 1983). Parents tend to isolate their handicapped child within the home, fearing public embarrassment. DeMyer and Goldberg's (1983) study of 23 families in the USA found that the parents reported their most severe problem in achieving family recreation when the autistic child was around. Generally low expectations are held regarding the benefits for autistic children of greater community interaction unless they acquire the necessary recreational and leisure skills (Mesibov, 1983). The trend now is more toward developing leisure and vocational skills to enrich the life of autistic individuals (Van Bourgondien and Mesibov, 1989). The following item evaluates the importance of social interaction and leisure time from parents' perspective.

"The enjoyment of leisure time activities and the company of others"

Table 5.26

Mean	Standard Deviation
3.64	0.526

Significant at 0.05 level

	Father's education	Father's age	Mother's education	Mother's age	Child's age	Diag- nosis loca- tion	Diag- nosis age	Progra- mme's loca- tion	Progra- mme's dura- tion	Progress
F Value	.5842	.1016	.5387	.7318	.2916	.2299	.5666	.3234	.725	.2391
Signi- ficance	NO	NO	NO	NO	NO	NO	NO*	NO	NO	NO

* Significant at 0.05 with Chi-square

A mean score of 3.64 suggests that this is an important objective for the family because of the need of the autistic child for increased social interaction. As such, it is suggested that it should be an essential component in the proposed programme.

5.5.2 Question related to the Programme Implementation

Another criterion which will affect the programme design and its implementation is government policy concerning the language that has to be used to teach children with special needs. In Kuwait, teaching in either Arabic or English is allowed, provided there is a strong justification for it. But in Saudi Arabia, special permission is needed if the programme is to be conducted in English, with much restriction on usage of this language. The next three items assess the perception of the parents toward the language of the programme.

Question No.E1

The language in which the programme is conducted is an essential factor in its effectiveness. The following statement examines the parents' perception of English as the medium of instruction.

"The programme should be conducted in English"

Table 5.27

Mean	Standard Deviation
3.73	0.576

Significant at 0.05 level

	Father's educa- tion	Father's age	Mother's educa- tion	Mother' s age	Child's age	Diag- nosis loca- tion	Diag- nosis age	Progra- mme's loca- tion	Progra- mme's dura- tion	Progress
F Value	.7038	.4641	.2126	.6624	.8234	.2940	.6924	.0670	.437	.6346
Signi- ficance	NO	NO	NO	NO	NO	NO	NO	NO*	NO	NO

* Significant at 0.05 with Chi-square

Question No.E2

Arabic is the official language of the country and general education is conducted through this medium. The following statement assesses parental perception of its use as the medium for delivery of the education programme.

"The programme should be conducted in Arabic"

Table 5.28

Mean	Standard Deviation
2.37	1.002

Significant at 0.05 level

	Father's educa- tion	Father's age	Mother's educa- tion	Mother's age	Child's age	Diag- nosis loca- tion	Diag- nosis age	Progra- mme's loca- tion	Progra- mme's dura- tion	Progress
F Value	.6031	.0822	.9444	.4517	.1852	.8352	.3374	.8664	.3544	.4868
Signi- ficance	NO*	NO	NO	NO	NO*	NO	NO	NO	NO	NO

* Significant at 0.05 with Chi-square

The less favourable response towards utilizing Arabic as the language of the programme, compared to English, could be attributed to many factors. First, many parents have the hope that as soon as their child improves, they can transfer him to a private school where teachers are more receptive toward the needs of the child. Since most of the private schools conduct their programmes in English, parents prefer English for the sake of educational compatibility in the future. Some parents may also be looking toward educating their children abroad if the current programme proves to be a failure. Having English as the language of the programme would increase the child's adaptability to any foreign programme. Second, most children are cared for at home by expatriate maids who speak English with the child. Having English as the language of the programme may, in the perception of the parents, reduce any confusion caused to the child by having different languages at home and at school.

Question No.E3

Since some parents may prefer the utilization of both Arabic and English as a means of instruction, the following item assesses the parents' perception toward this need.

"The programme should be conducted in both Arabic and English"

Table 5.29

Mean	Standard Deviation
2.90	0.950

Significant at 0.05 level

	Father's education	Father's age	Mother's education	Mother's age	Child's age	Diag-nosis location	Diag-nosis age	Progra-mme's location	Progra-mme's duration	Progress
F Value	.4754	.3244	.3015	.7683	.6756	.2602	.3115	.4142	.3514	.8429
Signi-ficance	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

The less favourable response towards utilizing both languages compared to utilizing English alone, and the better response towards using both languages (Arabic and English) when compared to using Arabic alone, may indicate the preference of parents for English as the language of education, while using Arabic for day-to-day activities and in relation to the community.

Question No.E4

Physical education (PE) activities are an essential component of any special needs programme (Sherbone, 1979; Sugden, 1993). Such PE will foster the children's sensory-motor development, cognitive and academic performance (Mann et al.,1974) as well as giving them necessary knowledge about their body, and social and emotional development (Michielutte, 1974). It will help in reducing self-stimulatory and other inappropriate behaviour (Kern et al, 1982; Watters and Watters, 1980). The following statement assesses the desire for such activities from the parents' perspectives.

"The programme should include physical education"

Table 5.30

Mean	Standard Deviation
3.44	0.703

Significant at 0.05 level

	Father's education	Father's age	Mother's education	Mother's age	Child's age	Diagnosis location	Diagnosis age	Programme's location	Programme's duration	Progress
F Value	.1764	.3328	.0093	.8762	.6478	.5234	.1772	.9557	.9024	.0011
Significance	NO*	NO	YES	NO	NO	NO	NO	NO	NO	YES*

* Significant at 0.05 with Chi-square

Parents who hold a graduate degree and who experienced excellent progress with their child, responded more favourably to this need. The experts

as well as the experiences of other programmes (see Chapter 3) suggest that physical education should be included as a major component of the proposed programme.

Question No.E5

Research indicates that music is a useful tool for education and provides enjoyment for special needs students (Schalkwijk, 1994), in particular for autistic children (Hunt, 1979; Baron-Cohen and Bolton, 1993). It has been established that music has considerable value in the areas of physical, emotional and social development (Michielutte, 1974:266; Warwick, 1995). Since some parents may object to their children being taught music for religious reasons, the analysis of this question will be an interesting one. The following statement concerns the parents' perception of the need for such activities.

"The programme includes music lessons"

Table 5.31

Mean	Standard Deviation
2.83	1.145

Significant at 0.05 level

	Father's educa-tion	Father's age	Mother's educa-tion	Mother's age	Child's age	Diag-nosis loca-tion	Diag-nosis age	Progra-mme's loca-tion	Progra-mme's dura-tion	Progress
F Value	.5516	.2490	.6526	.8934	.9156	.9856	.2562	.5913	.7474	.4773
Signi-ficance	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

As expected, parents, for various religious and social reasons, gave such need the lowest approval. Though the effectiveness of music therapy is well documented, the programme will have to take a gradual and cautious approach when attempting to implement such a component.

Question No.E6

Arts and craft are an essential ingredient for any educational programme. Such activities improve the child's social and intellectual development (Reynolds, 1979). Art can offer the child an alternative means of communication which does not involve sophisticated speech (Case and Dalley, 1994). It also helps the child to develop a greater consciousness of the environment (Rabiger, 1994). Responses to the following statement will indicate the necessity of such provision in the parents' perception.

"The programme includes art lessons"

Table 5.32

Mean	Standard Deviation
3.73	0.447

Significant at 0.05 level

	Father's educa- tion	Father's age	Mother's educa- tion	Mother's age	Child's age	Diag- nosis loca- tion	Diag- nosis age	Progra- mme's loca- tion	Progra- mme's dura- tion	Progress
F Value	.8180	.9241	.4851	.9323	.7674	.3585	.1733	.2383	.4123	.0454
Signi- ficance	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES*

* Significant at 0.05 with chi-square

Parents who experienced excellent progress with their child, responded more favourably to this need. The highly favourable responses indicate the importance of including such activities in the education curriculum of autistic children.

Question No.E7

The inclusion of religious education within the curriculum of special needs children is a controversial issue. On the one side, some educationalists argue that such teaching belongs to mature adults while others believe that there is a need for pupils to develop spiritually (Peterson, 1995; Brown, 1993). Religious

education in Muslim countries is essential since faith is an integral part of the society. Responses to the following statement will indicate the importance of such education from the parents' perspective.

"The programme includes lessons to teach basic prayers and reciting short verses from the Holy Quran"

Table 5.33

Mean	Standard Deviation
3.51	0.655

Significant at 0.05 level

	Father's educa- tion	Father's age	Mother's educa- tion	Mother's age	Child's age	Diag- nosis loca- tion	Diag- nosis age	Progra- mme's loca- tion	Progra- mme's dura- tion	Progress
F Value	.1106	.533	.3278	.8092	.7298	.2513	.2373	.8088	.7791	.0888
Signi- ficance	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Though the author feels that parents are themselves strong religion believers, the lower priority accorded to this need indicates confusion and doubts in parents' minds about the abilities of autistic children to develop spiritually. Nevertheless, the programme should emphasise such a need and necessary efforts made to raise awareness of this need at parents' meetings or parents' group activities.

Question No.E8

The importance of exposing the pupil to interesting learning experiences in the surrounding environment has been emphasised by many studies (NCC, 1990b; Piaget and Indelder, 1969). The following statement concerns parents' perception of the need for such exposure.

"The programme includes outdoor visits to familiarize the children with their environment"

Table 5.34

Mean	Standard Deviation
3.79	0.525

Significant at 0.05 level

	Father's educa- tion	Father's age	Mother's educa- tion	Mother's age	Child's age	Diag- nosis loca- tion	Diag- nosis age	Progra- mme's loca- tion	Progra- mme's dura- tion	Progress
F Value	.6787	.3401	.3374	.4106	.0456	.0206	.2713	.6200	.1470	.5980
Signi- ficance	NO	NO	NO	NO	YES	YES	NO*	NO	NO	NO

* Significant at 0.05 with Chi-square

Those parents whose children were diagnosed inside Kuwait responded more favourably to this question. The high approval rate indicates the importance attached to this need. This is due to the fact that most parents of autistic children refrain from going outside the home in order to avoid any embarrassment caused by the behaviour of their children. Such familiarization may help the family to increase the frequency of outdoor activities.

Question No.E9

The reporting of children's progress is recognised as a very effective tool in their development (Brennan, 1985; Wolfendale, 1993). The following statement was put forward to assess the parents' perception of the need for such reports.

"Daily or weekly progress reports should be sent to the parents about their child's development"

Table 5.35

Mean	Standard Deviation
3.85	0.361

Significant at 0.05 level

	Father's educa- tion	Father's age	Mother's educa- tion	Mother's age	Child's age	Diag- nosis loca- tion	Diag- nosis age	Progra- mme's loca- tion	Progra- mme's dura- tion	Progress
F Value	.7636	.0177	.0335	.1164	.0072	.0858	.7138	.7931	.0623	.5604
Signi- ficance	NO	YES*	YES*	NO	YES*	NO	NO	NO	NO	NO

* Significant at 0.05 with Chi-square

Fathers aged between 30-40 years and with children of 3-5 years responded more favourably to this need. The high level of favourable responses indicates the desirability of including extensive and prompt reporting as one of the major ingredients for the effectiveness of any education programme.

5.5.3 Questions related to Support Services

Question No.F1

A reflective model for parent counselling emphasises parent awareness, understanding and acceptance of the child (Groden and Dominigue, 1991). Responses to the following item indicate the parents' perception of the need of such activities.

"Parent awareness programme (lectures/conferences/training courses, etc.)"

Table 5.36

Mean	Standard Deviation
3.83	0.381

Significant at 0.05 level

	Father's educa-tion	Father's age	Mother's educa-tion	Mother's age	Child's age	Diag-nosis loca-tion	Diag-nosis age	Progra-mme's loca-tion	Progra-mme's dura-tion	Progress
F Value	.4849	.5036	.0134	.2813	.3654	.7620	.7255	.7687	.2802	.3456
Signi-ficance	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO

*Significant at 0.05 with Chi-square

Mothers educated to below high-school level responded more favourably to this need. The highly favourable response with low standard deviation indicates the importance of such an awareness programme in meeting the needs of the parents, while such awareness is a major ingredient for the effectiveness any programme for autistic children.

Question No.F2

Parents' involvement and support is an integral part of the programme's effectiveness (Wing, 1986; Wolfendale, 1993). The desire for such involvement from the parents' perspective was examined through the following item.

"Periodic parent meetings to discuss their children's needs, problems. etc."

Table 5.37

Mean	Standard Deviation
3.63	0.606

Significant at 0.05 level

	Father's educa-tion	Father's age	Mother's educa-tion	Mother's age	Child's age	Diag-nosis loca-tion	Diag-nosis age	Progra-mme's loca-tion	Progra-mme's dura-tion	Progress
F Value	.3294	.2784	.2607	.9356	.4449	.9532	.1007	.5711	.2855	.0124
Signi-ficance	NO	NO	NO	NO	NO	NO	NO*	NO	NO	YES

* Significant at 0.05 with Chi-square

Parents who experienced excellent progress of their children responded more favourably to this question. The strong approval indicates the importance of having such periodic meetings with the parents and the need to include them as an integral part of the programme. In parallel, there is a need to build the institutional capabilities to meet this need.

Question No.F3

Many programmes emphasise the need for entertainment activities for autistic children after school. A study of parents' perceptions of moderately retarded children in a large Southern California school district found a need for a comprehensive post-school programme to meet the children's recreational needs (Stanfield, 1973). Though this report concerned mentally retarded individuals, it is possible that a similar situation exists in relation to autism. Within the context of Kuwait and Saudi Arabia, such a need is even greater due to the limited recreational activities available for autistic children in both countries. The following item was included to assess the necessity of such provision from the parents' perspective.

"Entertainment programmes after school hours or during vacations"

Table 5.38

Mean	Standard Deviation
3.62	0.59

Significant at 0.05 level

	Father's educa- tion	Father's age	Mother's educa- tion	Mother's age	Child's age	Diag- nosis loca- tion	Diag- nosis age	Progra- mme's loca- tion	Progra- mme's dura- tion	Progress
F Value	.6927	.4571	.9264	.7085	.5370	.6968	.8674	.8583	.4238	.1364
Signi- ficance	NO	NO	NO	NO	NO*	NO	NO	NO	NO	NO*

* Significant at 0.05 with Chi-square

The strong approval indicates the parents' perceptions of the importance of including recreational provision within the programme.

5.6 CONCLUSION

There are a number of implications in these results for us to consider. The questionnaire shows that parents perceive certain provisions as essential for autistic children. The behaviour problems associated with the condition seem overwhelming. The four highest scores, in sequence of priority, were given to the need for the programme to deal with the display of appropriate behaviour in various situations, the use of suitable communication methods, the development of independent skills and sitting down to study for longer periods. On the other hand, there were two areas of need where parents' responses differed widely. These were toilet training and eating in an acceptable manner. Parents' perceptions of the necessity for such skills may have depended on the severity of the syndrome and on the age of the children. Parents with older children did not feel the necessity of training to eat in a proper manner or of toilet training, since their children were already trained. Nevertheless, such training would be needed for younger autistic children. This calls for individualized education plans to cater for such diverse needs.

As a result of the questionnaire survey, eight curriculum areas have been identified for special emphasis:

1. the reduction of inappropriate (adaptive behaviour) and aggressive behaviour;

2. development of language and communication skills;

3. relating and responding to outside stimuli;

4. enhancement of cognitive skills, such as learning skills (sitting down to study for a longer period, writing basic vocabulary, etc.);

5. motor skills and motor behaviour;

6. independence skills (dressing, hygiene);

7. functional skills for future use in the community (office work, cooking); and

8. recreational and leisure-time skills (swimming, computer games).

Furthermore, the survey highlights major ingredients for the effectiveness of the educational programme from the parents' point of view, including:

1. the intensity of systematic reporting on the child's development;

2. inclusion of outdoor visits and increased exposure of children to the community and environment;

3. involvement of parents and family through periodic parents' meetings and a parents'-awareness programme;

4. inclusion of non-academic activities, such as arts and crafts, physical education and, to a lesser extent, music;

5. provision of an entertainment programme after school hours and during vacations in view of the shortage of entertainment facilities for autistic children;

6. though the majority of parents would prefer the programme to be conducted in English, for a variety of reasons it will be conducted in Arabic as explained in Chapter Six.

An appropriate educational programme for autistic children should take into consideration the needs identified by parents, according to their priority. The review of such needs indicates how important it is to adopt a whole-child model which provides those services and activities most likely to enhance the lives of autistic individuals and their families, both now and in the future (Groden and Baron, 1991:13). The challenge to this research is how to design such a programme, reflecting all these factors and requirements. This will be the subject of the next chapter.

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Part Two

This part contains four chapters (from 6-9). It examines in some detail the design, implementation and evaluation of the programme as well as its outcomes.

CHAPTER SIX: PROGRAMME DESIGN

As was indicated in Chapter 1, the purpose of this research is to develop a broad conceptual framework for a programme for children with autism that could be implemented in Kuwait and other oil rich countries. At the end of the previous chapter, which was devoted to data analysis, the needs of children with autism were identified. The next stage is design and development of a programme to address those needs. This chapter will identify the main components of the programme, using the result of this empirical study and considering the prevailing educational system and environmental orientation of the society. This chapter will, therefore, discuss a number of pertinent educational issues, including the concept of the programme in general, criteria to be considered in the choice of contents, general principles to be considered in designing the programme, models in programme design and the objectives of the proposed programme for autistic children. Furthermore, the chapter will discuss the criteria for selection and admission of children, as well as the provision of support services and facilities. It will then evaluate some educational ingredients of the programme's design such as teachers, teaching methods and record keeping. The role of the family will be discussed, as well as that of religious education. Other recommendations or implications with regard to methodology, materials and evaluation of the programme will also be offered.

6.1 Concept of Programme

The concept of the programme will be defined more clearly if it is contrasted with the concepts of syllabus and curriculum. When compared with the curriculum, the term 'syllabus' refers to the specific details of the course contents while the curriculum provides a general statement of policy (Dubin and Olshtain, 1986:40; Nunan, 1988:8). The curriculum is concerned with the planning, implementation, evaluation and management of the education

programme while the syllabus focuses narrowly on the selection and grading of its educational contents. The syllabus could, therefore, be considered as a sub-part of the curriculum. When compared to the curriculum, the programme is a wider concept which includes both curriculum and syllabus, as well as other vital components which enhance educational impact. A programme may include services and facilities that are considered part of the programme as well as tools to ensure its effectiveness. As distinct from the curriculum, the programme embraces other non-educational components such as family education and training, which contribute to the effectiveness of the curriculum.

In selecting and designing the programme, many components and factors may be considered. These include physical, administrative and time constraints, which may prevent the programme designer from including all items needed. For example, the availability of ideal buildings and playground facilities will restrict the inclusion of some vocational and recreational activities within the programme. In addition, the absence of awareness and the lack of the adequate facilities for the handicapped may reduce the utilization of outdoor activities. Parents expressed the need to have wider exposure to the community and the environment when they responded to our proposal that the programme should include outdoor visits to familiarize the children with their environment, (Mean of 3.79, Table 5.34). Furthermore, insufficient availability of teaching staff and appropriate classrooms may prevent the programme designer from including items which require specific settings, such as group work. The designer may not be able, therefore, to include everything he thinks necessary simply because they are not feasible. The focus will, therefore, be on what is practical and attainable within the context of the country. Furthermore, the programme designer should take into consideration national educational goals, the financial resources available and the general curriculum implemented in the current educational system in the country.

6.2 General Principles in the Programme Design

Before designing any programme, some critical questions need posing:

1. What are the advantages and disadvantages of the existing programmes for children with autism and under what conditions are they effective?

2. How does the suggested programme differ from the existing programmes operating in the country (if any), what previous efforts were made to overcome the disadvantages and what was their degree of success?

3. Are the basic components of the proposed programme, and the needs it is going to address different from those of existing programmes?

4. What are the attitudes of schools, parents and pupils as well as those of the teacher's towards the education of these children?

5. What arrangements will be necessary in order to integrate the current programme within the general curriculum of the country?

6. How will the programme be implemented, what will be its objectives, core activities and other needed services?

7. What will be the core of the curriculum, the minimum imperative contents to be mastered by the learners?

8. What arrangements are necessary for monitoring or modifying the programme and who is to be responsible for such a task? What are the preferable contents that could be developed at a later stage?

The answers to the first and second questions have been given in chapters 3 and 4 respectively. The third, fourth and fifth questions will be the subject of this chapter, while answers to the rest of the questions and other related issues will be provided in subsequent chapters. Before that, it may be appropriate to indicate the general principles considered in the design of the programme, which are as follows:

1. **The theoretical base of the programme.** The understanding of autism is a cumulative process, gradually and systematically building on prior research and knowledge. An effective programme for children with autism should be based on sound theoretical knowledge of the condition, including a clear

definition of autism and correct diagnosis (Gillberg and Peeters, 1995). The effectiveness of different approaches should be considered. The advantages and disadvantages of each programme and conditions under which they are effective were discussed in Chapter Three. Our aim here is to develop an integrated approach which considers all feasible components not in contradiction with the environment and culture of the country. Therefore, we may need to combine different components from different approaches to arrive at a programme adequate to meet the needs of autistic children in Kuwait and oil rich countries.

The integration of various components in one programme, though cumbersome, is possible, and can be justified in terms of beliefs about the nature of autism, the needs of autistic children in the countries under consideration and the nature of education itself. One possible starting point is to divide the programme into a number of segments, each of which is conducted according to a different approach or orientation. Another possible procedure is to adopt one principal approach, together with elements from other approaches. In our research, we used the latter rather than the former. Our main approach will be that of TEACCH, enriched by a component of discipline of the daily-life theory. Other therapies will be used to enhance the effectiveness of the programme, including sensory-integration sessions, music and art therapy, together with behavioural management and techniques. The child will be considered as a whole human being, rather than having the programme focusing on the cognitive system only (Zigler, 1984).

2.   **Understanding the pertinent conditions of autism.** In designing the programme, in addition to the usual factors considered in any general educational programme for children, we have to take into consideration specific factors relevant to autism. These include the diversity of needs, the amount of time required for learning and the various support services necessary for effective teaching of the children. A major problem in designing a programme will be the complexity encountered when considering the wide-ranging and

different developmental levels already apparent among autistic children (Gillberg and Peeters, 1995). This is why it is sometimes crucial to individualize the programme aims and teaching (Wall, 1979). Equally important is the careful preparation of teachers, with the sensitivity and insight required for such complex tasks.

Having a single main approach, enriched by other programmes and philosophies in educating children with autism, may confuse inexperienced teachers who are not well-versed and knowledgeable about the condition, especially those who are not used to attending conferences and workshops. For example, the toughness advocated and implemented by the Lovaas method of behaviour modification will not be in line with the general philosophy of the programme. So unless the teachers have been specially trained, it will be difficult to expose them to such workshops. An untrained teacher may, for example, aggressively impose the time-out technique with undesirable consequence.

The nature of autism demands that the programme be flexible and capable of adjustment in accordance with the needs of the children, and that it should take into account the political, cultural and social situation and circumstances prevailing in Kuwait and other oil rich countries.

3.   **The prevailing attitude toward autism.** One of the main principles to be considered in any programme is the attitude to disabled people, including autistic individuals, which prevails within the society. This is why it is important to analyse the attitudes of society in general, and of teachers and parents in particular, because those will affect the way the programme will be designed as well as people's reaction to it. For example, a teacher's positive attitude can affect child behaviour, foster supportive, home-school relationship and facilitate the delivery of special sessions by professionals. Teachers' attitudes could be modified through intensive workshops and continuous guidance (Wood, 1995).

As indicated in Chapter 4, in Kuwait and Saudi Arabia attitudes toward people with autism are not encouraging, due to ignorance of the condition. However, because of growing awareness of the facts, we find that people are currently becoming more socially receptive towards autistic children. Such increased awareness has not been accompanied by legislation or clear public policies reflecting this more positive attitude.

Furthermore, the expectations of parents are high; so much so, that it will be difficult for any programme designer to satisfy such increasing demands. It is important, therefore, when formulating priorities and goals to distinguish between our own ambitions and the child's needs.

4. **The needs of all concerned with the welfare of the child**. Another criterion that may affect the design of any programme is the different viewpoints of parents, practitioners and teachers, who are not always in agreement. These parties may have different or similar opinions about autistic children's needs. A problem may emerge when the programme designer finds contradictions or discrepancies in the views of teachers and parents which usually leads to the adoption of what is called a 'negotiated syllabus' (Yalden, 1987:63). The low response (mean of 2.83) to the use of music in the programme, with a high standard deviation (1.145), could be an example of this (Table 5.31). Educationalists in general agree that music is an effective educational tool for children with autism. Due to religious and cultural factors, some parents in Kuwait and Saudi Arabia do not, however, share its viewpoint. One solution, through the negotiated syllabus approach, is to agree with parents on the acceptable range for using music in the learning process. Efforts could also be made to convince parents about the purposes of music in the programme, namely to attract the attention of the child and stimulate interaction. Music is not taught as a straight curriculum subject. It should be explained to the concerned parents that the aim of music therapy is not to teach skills as such but to help children explore areas of self-expression and communicate through the medium of music.

5.   **The selection of appropriate curriculum areas and how to integrate different syllabuses to arrive at the desired curriculum.** Could the syllabus be integrated? The answer to this question is that many educationalists have found that an integrated syllabus is sometimes a good solution when the programme designer arrives at the conclusion that a number of different syllabuses are needed (Dubin and Olshtain, 1986:38, Yalden, 1987). Furthermore, the basis of the general curriculum, as suggested by the English National Curriculum, stress on breadth, balance, relevance and differentiation could be also the basis for special-needs education (Carpenter, 1993).

Examining four curricula for autistic children, Romanczyk and Lockshin (1981) indicated that all had a common element, namely, the sequential presentation of skills, while three included assessment, and only two had specialized instructional methods for achieving their objectives.

We can conclude that to have an effective curriculum, the designer should include certain critical elements, including sequential presentation of skills, specialized instruction methods and assessments. The curriculum could be an integration of many available curricula while maintaining particular characteristics such as breadth, balance, relevance and differentiation.

In developing the academic skills of autistic children, the curriculum will emphasise the pre-academic skills that are seen as important in the national curriculum. These may include work behaviour, especially training the children to work at a table while seated, holding a pencil, familiarity with paper work, etc. In both countries' culture, academic skills are valued by parents and society. This is obvious from the high rate of approval for questions D2, D4 and D7. In order to establish parents' confidence, the programme should focus on enhancing the academic skills of the child. However, necessary and limited amendment and adaptation will be included to the national curriculum to suit autistic children. Although a few students may approach normal levels in maths, the academic achievement of most autistic children is limited, so the

programme will spend more time on self-care and on functional skills. In conducting our teaching of pre-academic skills, we will not be bound by the time-limits or tests that apply in other national schools.

6.   **Channelling the challenging behaviour.** The challenging behaviour of children with autism could be better channelled to achieve the desired objectives by providing a structured educational setting and environment with a fixed routine and structured teaching.   Both the daily-life therapy of the Higashi School and the TEACCH programme emphasise such an approach. Teaching pivotal behaviour has been indicated as a promising approach for development.   Pivotal behaviour is that which is likely to affect wide areas of functioning (Moes, 1995).   The channelling of such behaviour is also needed from the parents' perspective.   As indicated in Table 5.17, the need to display appropriate behaviour in various situations received one of the highest parental scores (Mean of 3.9).   Lovaas (1987) found that programmes that use a behavioural approach, in which individualized behaviour targets are integrated into the curriculum and taught explicitly, show the most significant outcomes.

7.   **The link to the general and special education curriculum.** Another factor to be taken into consideration when designing the curriculum is the need for it to be linked with the general as well as the special needs curriculum.   In Kuwait and other oil rich countries such a link is not required; nevertheless, maintaining a degree of linkage with the prevailing curricula is useful.   The education system in Britain emphasises that the goal of education is the same for all children, which is similar to the situation in Kuwait.   Lewis (1995:6) cited three benefits of having a similar curricula for both ordinary children and those with special educational needs:

a)   the provision for all children of the same basic educational entitlement;

b)   a clear curricular framework; and

c)   a structure within which to differentiate learning for children with special educational needs.

Nevertheless, many resentments and problems were reported when a similar curricula were implemented, including the inappropriateness of the curriculum, especially for pupils with severe or profound learning difficulties (Lewis, 1995). As a consequence, a curriculum for autistic children may or may not incorporate aspects of the national curriculum; its context should, however, be determined by the needs of the child, given priorities such as the need to communicate and interpersonal areas, together with functional and life skills. As such, the child should be the focus of the curriculum.

A major consideration in effectively integrating the proposed curriculum with those of both general and special education is to be sure that such integration will not affect the coherence of the curriculum for autistic children and will not reduce their learning opportunities.   Such a task has to be implemented in a balanced way and has to be in harmony with the individual needs of the children.   This could be achieved by careful planning and by focusing on the individualization of the educational plan.

8.   **Individualized education programme**. A key issue in designing the curriculum is to maintain the personal autonomy of each child and to make him/her as independent as possible by utilizing the different skills and training needed in this regard.   The Education Reform Act of 1988 in the U.K. placed a statutory responsibility upon schools to provide a broad and balanced curriculum which prepares the pupils for the opportunity, responsibility and experience of later life (Carpenter, 1993). The Individual Education Plan, known as the I.E.P., is the backbone of the special education services and guarantees that each child will receive an appropriate education.   It works as a contract between the concerned caretakers of the child, spelling out plans and goals for him/her.

The programme should aim at a carefully worked-out approach to teach the basic skills needed, utilizing small steps in order to ensure effectiveness. Autistic children vary considerably in their impairments, a fact which necessitates different training and education plans (Gillberg and Peeters, 1995). The programme's effectiveness lies in deciding which behaviour is positive and how it may be modified to have the greatest impact (Howling and Rutter, 1987). Taking into consideration the attitude and behaviour of the children, for example, their short concentration span, the emphasis will be on the need to individualize the programme in order to allow the education process to be undertaken as and when individual children are receptive. Even though the curriculum is seen as a structure that will determine the work of the teacher during his interaction with the child, flexibility is needed to care for such individualization. However, the curriculum will ensure that the teacher is clear about the aims and objectives appropriate for the children. He/she will have more freedom to decide what the child's needs are and how best to react to such needs taking into consideration the child's mood, motivation and available resources. So when we advocate individualization, we do not expect that this will dilute the concept of curriculum as a means for unified educational outcomes because such individualization is done within a clear set of aims and objectives.

One approach to individualization is the Individualized Education Programme (IEP). This is an appropriate approach for individuals with autism since it will determine how much time the professionals will spend and what the students need to know at the end of the year. It serves as a critical tool in the student education programme. Three components are usually included within this approach: behaviour, conditions and criteria (Smith et al, 1993). For example, writing the music goal for a child named Latif could be written in the following form: When Latif participates in the music class (condition), he will play one instrument (Xylophone) (behaviour) with no assistance for 20 minutes, once a week for twenty weeks to reach the level of playing simple tones independently (criteria).

Although in many countries it is a legal requirement (e.g. USA and UK) that each child with special-needs should have his I.E.P., the law does not address the learning needs of teachers or parents. However, within the context of Kuwait, they are not all equally prepared to assess the student's learning style and identify achievable goals that will prepare that young person for her or his brightest future.

The use of IEP in the education system in Kuwait as well as in other oil rich countries is not practised. The practice currently is to have a general education plan for conducting the education process. In addition to teachers, the implementation of IEP is also new to the parents. Though the parents will be happy to be involved in the IEP process, there are many consequences for parents which make it difficult to implement in the context of both countries. For example, parents in Kuwait are not used to thinking collectively (father and mother together) about the needs and the development of their child. So if we individualize such needs, it will be strange to some of them if, on arrival at the school, they are asked, for example, what they see as their child's educational needs. Usually parents are not realistic, and will suggest needs which will be difficult to implement, such as the need of their child to use the language fully.

In contrast, the example of an IEP produced by a teacher would be more focussed. For example, by the end of the school year, Salim will;

(1) use acceptable signs, cues or gestures to signal needs, requests and refusal (teacher will specify communication tool suitable for student);

(2) recognize the sequence of the school-days' activities;

(3) become less dependent on the teachers for basic needs (eating, toileting, school work, etc.);

(4) use the reward system to earn chosen activities and privileges;

(5) show progress in social skills, such as turn taking, sharing, waiting in line; and

(6) show progress towards the more specific goals chosen by teachers and parents, i.e. become toilet trained, reduce self-abuse, cross streets safely and independently, improve reading by a full-grade level and recognise the denomination of common coins.

9. **The administrative support of the programme.** Administrative support is an essential component of any special education programme, especially IEPs (Wood, 1995). Though the proposed programme will not depend fully on the IEP process, which necessitates full-scale administrative support, such back-up will continue to be needed to ensure the programme's effectiveness. Due to the lack of a well-established special education department in either country, the programme will have to develop its own administrative support. This will include the following (Romanczyk and Lockshin, 1981):

1. Effective programme coordination and supervision, in-service guidance or instruction.

2. Resources support including assessment, standardized forms (e.g. evaluation report), circulation of current research and consultative assistance.

3. Formal and informal feed-back mechanisms for the staff.

4. Consultation with specialists as well as arranging for their involvement with the parents and decisions about the degree of parent involvement.

5. Administrative services, including personnel, volunteer activities, external relationships and finance.

6. Evaluation and documentation of the children's progress.

7. Delivery and follow-up of services that increase integration within the class and society.

In deciding on administrative support, the designer should differentiate between core and peripheral needs. From the questionnaires, we find there are some needs which will be considered as basic and essential for autistic children, such as behaving appropriately, while there are others which will be part of the programme but will depend on the ages and needs of each pupil, such as eating properly and toilet training. Necessary balance is required and this will be the role of teachers.

10.   **Scheduling.** In order to decide on the administrative needs, we have to decide on the type of facility (day programme), number of instruction hours per day, age range, degree of parents' involvement and supervision of staff (Romanczyk and Lockshin, 1981). The programme will be run as a special day school providing services during day-time hours, with no residential services.

The design of a daily schedule that integrates the needs of the child, staffing and parent involvement is a herculean task. However, we need a certain degree of specificity concerning the duration of sessions, number of sessions, number of days and staff ratio. In addition to instructional periods, the programme should include recreational activities, eating times, and arrival and departure periods. Most programmes have 20-30-minute sessions followed by 5-10 minute physical and recreational periods. In addition to giving the children time for a break, the recess allows the teachers to record all data and prepare for the next session.

11.   **The language of the programme.** The designer should decide on the language of communication, taking into consideration many factors, such as the language spoken within the family environment, the official language of the country, the language in which educational resources are available and the language of the children's future placements or schools.

English is the first foreign language employed in the school system of all Gulf states including those of Kuwait and Saudi Arabia. It is taught for six to

eight years. As indicated in Chapter 5, parents would prefer the programme to be conducted in English rather than in Arabic, with a mean of 3.73 for English preference (Table 5.27) compared to a mean of 2.37 for Arabic (Table 5.28). This is due to the fact that English is mainly spoken within the provision of the services for the sake of educational compatibility in the future when the child is enrolled in a school outside the country. If we use English as the means of communication, it will enable the staff to utilize abundant educational resources as well as avoid incompatibility with the language spoken in the home environment of some families. Using English will also allow the centre to benefit from the services of many external professionals. On the other hand, conducting the programme in English would require teachers with proficiency in English; these are rare in both countries. Recruiting foreign teachers who speak English will not help in developing native teachers and will increase costs, since most will demand higher pay. Furthermore, in order to integrate the programme curriculum, into the general education curriculum and since the teachers will be provided by the MOE, speaking Arabic, it is preferable that the programme language should be Arabic. In addition, having a child who communicates only in English may isolate him from a society which largely speaks Arabic. This will further increase the already massive isolation of the child. After careful consideration of all the arguments, it is felt that at this stage, using Arabic as the means of communication would be best for the education process. English will not be eliminated totally since it could be used in activities which are not core, such as in songs or plays.

12. **The use of information technology (IT) and the suitability of a computer-based learning environment.** Advances in technology provide varied experience which contributes to the development of education for children with special needs (Rodbard, 1993) including autistic children (Murray, 1997). Using computer games and voice interaction to stimulate language development in non-speaking children is well-established (Weir, 1987). For example, many portable electronic devices with digitalized voice output may be useful for many individuals with autism. Such individuals may benefit from the

use of keyboard-based devices, such as computers and touch screens.

The programme designer must be aware of such technological possibilities and monitor continuously their impact on the programme's development (Brennan, 1985). As the technology improves, additional elements can be changed or added to reflect the latest advances. The main object of utilizing technology is to give the child the opportunity to use information technology, purposefully to communicate and handle information, and to support his/her problem-solving, recording and expressive work (Moon, 1996). As in the case of F.C., the increased utilization of technology will be gradual and conducted in a balanced way. In selecting the right technology, it is important to consider the input and output devices that will aid the children to achieve their stated goals and objectives according to the IEP.

13. **Mainstreaming and full inclusion**. A central issue concerning teaching autistic children is whether the children's needs can be more appropriately met in special classes or centres or in mainstream schools alongside other normal children. The matter of integrating the disabled child into the regular school classroom is a hotly debated issue. Mainstreaming refers to the practice of placing autistic children into an environment with children without disabilities. While previous mainstreaming efforts focused on mentally handicapped children who spent much of their time in special education classes (self contained), currently many educationalists think of full inclusion, which means placing severely physically and mentally handicapped children in regular classes[1]. A mainstreamed environment means bringing the child to the services, while full inclusion practice brings services to the child (Kellegrew, 1995). The integration of individuals with autism with normal non-autistic individuals has been an effective approach for training and development. Many were influenced and stimulated by their interaction with normal individuals (Strain et al, 1985).

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[1] "Statement of Council for Learning Disabilities", Journal of Learning Disabilities, Vol.26, No.4 (Nov 1993): 594-5.

Simpson and Sasso (1992) question, however, the benefits of such inclusion and argue that the needs of others, such as teachers and non-disabled children, must be taken into account. Cole et al (1991) indicate that lower-functioning students showed increased gain in a segregated environment. Gillberg (1989a) indicates that autistic children do far better when human interaction (with age-peers) is kept to an absolute minimum. However in Kuwait, pursuit of full inclusion is premature since, disabled children are kept in segregated schools.

Children with severe social impairment can best learn to socialize if they are in an environment that provides a significant number of appropriate opportunities for social interaction (Koegel et al, 1995). Peer children can be a good model, especially if they are well prepared. Though the importance of mainstreaming (integration) in special education, including autistic children, is well supported by many authors (Wall, 1979; Strain, 1984; McGee et al, 1993, UNESCO, 1994), and its impact on improving social interaction skills or social competence recognised, its share in our programme will be minimal and undertaken with great caution. This is due to the fact that favourable conditions for integration do not yet exist in either country. Fulcher (1989) stated that two factors are needed for successful integration: favourable conditions in schools and positive teaching practices, neither of which exist in Kuwait or Saudi Arabia. As indicated in Chapter 4, limited incidence of mainstreaming has occurred with minimal success. Furthermore, unless special preparation is in place, as indicated by Winton (1986), parents will have reservations about the regular education teachers' ability to meet the needs of their child and will make unfavourable comparisons, leading to concerns about the availability of special education support. In addition, where mainstreaming has been undertaken in other countries, such as the US, it was mandated by law, a condition which is lacking in Kuwait and other oil rich countries.

The experience of Dr. Kio Kitahara of mainstreaming in Boston is worth considering. When she established Boston Higashi school in the style of

Japanese school, which follows the daily-life therapy approach. Her idea was mainly to integrate autistic children with other normal children, but local authorities raised some objections due to regulations that prevent such integration although they trust in the benefits of such an approach completely. As an alternative, Dr. Kitahara brought some high-functioning Japanese autistic children as well as other normal children in order to integrate them with autistic children in the USA, not in all activities but in specially designed ones. Such integration led to a substantial improvement in the development of the autistic child.

In Kuwait, the idea of integrating of the blind started in 1964, many of whom went on to earn post-graduate degrees. Nevertheless, the authorities later overruled such integration, and segregation was maintained up to 1992, when the Ministry of Education started integrating 42 deaf students in all 5 Kuwait educational districts by enrolling them in the schools near their homes in cooperation with the schools' administration. Such a practice was successful enough to encourage more of the same. The experience provides us with the confidence that, if well-planned and implemented gradually, integration for children with autism could achieve similar success. Nevertheless, the idea needs a comprehensive plan with adequate supervision and consultation support for the disabled to make the integration process effective.

A new practice for mainstreaming and integrating deaf students or those using hearing aids is currently being undertaken in ordinary schools away from the specialized institutions. Though implemented with limited number, such a practice will be expanded to include more students as it becomes more acceptable. In another departure, in 1995 four classes of slow learners were established in two schools. However, due to the lack of adequate preparation for the students as well as their families, the experiment was not entirely successful. One shortcoming was that many ordinary children as well as their parents had negative views of such integration. The replication of similar future experiment for autistic children may necessitate adequate preparation of the

teachers. Furthermore, the children and their families should be kept fully informed of developments in order to ensure their constructive cooperation for the benefits not just of the special-needs children, but for all involved.

In view of the above factors, it seems premature for the programme to implement mainstreaming not to mention full inclusion. However, it will apply the maximum possible integration in certain areas. The autistic child is in greater need of protection rather than of integration in the early years (Volkmar, 1986). Nevertheless, the programme should emphasise the skills related to normalization, such as self-care, communication, etc. which will allow children to participate more effectively in an integrated environment. From the survey, parents strongly support the development of independent-living skills as well as functional skills, with means of 3.77 and 3.70 respectively (Tables 5.24 and 5.25).

Until such advanced integration is achieved, the programme can cooperate with mainstream schools, through visits as well as joint activities with ordinary children which allow modest integration for children with autism. Even such a limited aim will benefit both.

14. **The relationship with community and environment.** A major components of the proposed curriculum is to expose the child to interesting learning opportunities in the surrounding environment.

Curriculum guidance No.6 of the National Curriculum Council (NCC) of UK (NCC, 1990b) gives examples of some learning experiences, such as visits to a work place, a farm, a fire station or a shopping centre. The child will be encouraged to collect any necessary information, ask questions and to undertake some kind of self-assessment exercise. This will lead to independence of mind, self-discipline and self-confidence (NCC, 1990b). Taking aggressive or self-injuring, autistic children on outdoor activities could be difficult and dangerous; studies indicate, however, that such behaviour can be brought

under control by using a multi-pronged behaviour modification approach (Carr and Carlson, 1993). We can use popular places such as fast food restaurants as a reinforcement for the required behaviour. Such activity provides teachers with enormous opportunities to train the child. It also encourages parents to accompany their children to such places during leisure time and avoid isolating the child from other members of the family.

The same is true in health education, where the pupils are expected to perform simple tasks of personal hygiene. The child should understand the need for and be able to practise, for example, washing hands, cleaning teeth and using a handkerchief (NCC, 1990a). We can utilize practical situations in order to teach the children other skills such as clothes changing, bath taking, swimming pool exercises, hair drying, etc.

At an advanced stage, personal experience may include safety and safe practice in various environments. In the long term, the aim will be to equip the child with the skills, knowledge and attitudes necessary to live as far as is possible an ordinary life in the home, the community and, it is hoped, at work. From the survey, parents rated highly (with a mean of 3.79) the possibility of providing outdoor activities to familiarize the children with their environment (Table 5.34).

In Kuwait the use of public transport is rare in comparison to that of the private car, so we do not have to emphasise such an area. We can, however, replace it by stressing the safety features in reaching the car, getting inside, buckling seat belts and recognising the family or school vehicles.

After reviewing the fourteen general principles that will be used in the design of the programme, it is important to discuss design models, which will be the subject of the next section.

6.3 <u>Models in Programme Design</u>

In designing any curriculum there are three models that could be used: the objective, the process and the situational analysis model (Brennan, 1985).

The objective model is rooted in behavioural psychology, and requires a clear definition of the programme's objectives. These may consist of knowledge, skills, attitudes and values that need to be established by the child. These have to be defined in a way that allows the teacher to assess, through observation, the behaviour of the child and whether the objectives have been achieved. The process of evaluation, as well as feedback, are both essential for the effectiveness of the model. Using this approach, it is expected that the teacher will have to plan his/her teaching more rigorously. This will make the curriculum more effective and increase its impact on the child.

The second model is the process model. In the process model, the curriculum is not defined from a behavioural perspective, but is rather based on selecting the right content and advising on teaching methods which aim for results through the child's self-education and accumulated experience. The teacher should be impartial and neutral. It is expected that through the process of learning, children will be able to absorb the main aims and objectives of education. Evaluation will be part of the process and difficulties have been raised in assessing children's work. It will be difficult to implement this model in teaching autistic children, due to their lack of communication and inadequate social interaction.

The last approach is the situational approach. In this model, which is the prevailing model in Kuwait, we must first analyse the existing situation, including external and internal factors. External factors may include parent and community expectations and support available for teachers. Internal factors include teaching skills and the availability of resources. We must then formulate our goals, though not necessarily in behavioural terms. The next step is programme assembly, including the selection of subject matter, and the

arrangement of the materials and equipment in teaching sequence. Later, there will be the process of implementation and interpretation which includes the identification of practical problems and the introduction of new procedures. Lastly, there is operational assessment, which evaluates the response of the children and the teacher in determining the extent in which curriculum objectives have been achieved and what challenges remain. This may lead to a re-evaluation of the curriculum.

In designing the proposed programme, though we have followed the situational model approach, we have taken into consideration the need for behavioural objectives, as indicated by the behavioural model. Utilizing the behavioural model, we will concern ourselves with that behaviour that needs to be established by the children as the product of the teaching received (Brennan, 1985). We can also benefit from the process model by following a logical and sequential path in approaching issues and problems that face the designing of our proposed programme.

6.4   Objectives of the Programme

An objective is defined by Nunan as a statement describing what learners will be able to do as a result of instruction. Formal objectives are meant to have three parts: (a) activity (what learners will do), (b) conditions (under what circumstances), and (c) standards (how well they will perform) (1988:158).

In developing the aims of the proposed programme, the following factors or criteria were considered, as suggested by Brennan (1985). First, the programme should cater for all the individual needs of autistic children, including social, intellectual, physical and emotional needs. Second, it should help in promoting social interaction and allow the child to relate to his family, community and society. Third, it should help in developing children to their maximum potential (this is to been seen as an open-ended exercise). Fourth, there should be clear definitions of the stage-by-stage objectives to be reached

at certain critical points, which will be used to assess our success rate. Last, the aims should be stated clearly and in language that is understandable to the teacher, parents and the community.

In selecting the programme objectives, we have taken into consideration the following factors: (1) the children's current strength and disability, (2) future demands on the children's level of disability, (3) the current social environment and the adequacy of their services and facilities, and (4) parents' perceptions of the children's needs.

The kind and nature of programme objectives have much to do with the programme we are going to implement. Some objectives, though important, may be difficult to achieve, while others could be easily realised. For example, helping the parents deal with their autistic children is difficult to achieve in a short period, and external resources and professionals are needed to support the programme in achieving this target. Nevertheless, it is an achievable objective.

Due to differences in the degrees of autism, as well as the different ages within any group, it will be impossible for us to consider here the selection of objectives in detail. However, to the extent possible, detailed aims and objectives will be prepared, but the teachers will have the freedom to individualize their aims for each pupil through IEPs, as indicated earlier.

Taking into consideration the previous arguments, it is suggested that the general aim of the programme will be to provide the child with the skills, knowledge and outlook necessary to live as far as possible an ordinary life at home, in the community and at work. With this understanding, the objectives of the programme could be as follows:

(i)   performance: to improve the quality and quantity of social communication and interaction to enable autistic children to relate to and communicate

with others;

condition: small group, training to use alternative communication systems (sign language, pictures/pictographs, Macaton, etc.) and training on skills that integrate him/her into the society,

standard: to enable children to have good social communication and interaction with their families. S/he will imitate more words, use complete sentences and answer simple questions such as 'what is this'? S/he will be able to initiate as well as receive information relevant to his/her level of communication and understanding.

(ii) Performance: to equip the child with the skills, knowledge and attitudes necessary to live as far as possible, an ordinary life at home, in the community and at work.

Condition: co-curricular activities, independence skills, functional skills, vocational training (where applicable and desirable), job-placement services.

Standard: to enable the child to function appropriately and independently according to his/her capabilities and age.

(iii) Performance: to reduce the quantity of aggressive and severely inappropriate behaviour of the autistic child and to increase the quality of appropriate behaviour;

Condition: through behaviour management techniques and rewards within the system, reinforcement of the desired behaviour;

Standard: is to reduce the severity of behaviour to a level accepted by the family and the teachers and which allows for the better education of the child. If the child hits or screams, s/he will do so less often, for a shorter length of time and with less intensity.

(iv) Performance: to motivate children to attempt difficult social and academic skills, such as elementary training and understanding of some words, with a small vocabulary, relevant to his capabilities;

Condition: in classroom simulation and homework training;

Standard: to enable them to read simple Arabic, complete one mathematics work book, learn to use a programme in the computer class;

(v) Performance: to provide necessary support services to enhance the education process, such as guidance material, resources and other services which relate to the needs and wishes of the families;

Condition: resource support, service specialists, network of professionals;

Standard: to satisfy the diverse basic needs of the family and to accommodate other non-basic ones as much as the resources of the programme allow.

(vi) Performance: to include parents as co-therapists and co-partners, together with others interested in the welfare of the child; to provide parents with social and emotional support and opportunities to participate in their child's education.

Condition: commitment, continuous interaction, joint home-school activities, behaviour management;

Standard: involvement of the family to deal with the child more effectively and control the family environment.

(vii) Performance: to increase the level of awareness of the syndrome;

Condition: continuous interaction, joint school-community activities;

Standard: increase the receptivity and support for the autistic population through favourable legislation and better services.

These objectives each with their three components (performance, condition and standard), may be discussed with parents to achieve unified learning objectives. Having unified learning objectives leads to having the same expectation at home and school. The child will not make the expected progress if his behaviour is rewarded in school while it is ignored at home, for

example.

Even though the researcher has tried her best to define the objectives and the basis on which the programme has to be defined, there will always be a lack of certainty which necessitates making the best possible decision according to the information available. Needs change over time, and the curriculum as well as the objectives will have to be modified accordingly, which implies the need for the establishment of an evaluation and feedback mechanism.

The suggested programme model, if it proves successful, could be duplicated in other areas until the time for full integration is reached. The Programme's capacity will be limited because it will be difficult to manage a larger number of autistic children in one place.

6.5 Screening, Selection and Admission

As indicated in Chapter 4, diagnosis and assessment are essential for the programme's effectiveness. These will facilitate decision making with regard to placement, grouping, allocating staff resources and defining the best educational approach.

The lack of adequate diagnostic facilities raises the need to develop diagnostic procedures which are sensitive to distinguishing between the psychoses of childhood as well as reliable in relating significant symptoms in very early infancy to conditions which are more easily recognised at a later age. In addition to external independent diagnostic reports, which will be required to be presented by the parents, the programme may use CARS-PEP and the ABC check-list in its effort to have a definite diagnosis. As indicated in Chapter 4, those scales are recommended because they are simple, not too time-consuming, easy to administer and have established their reliability. However, well-trained teachers are needed to implement them and to refrain from jumping to conclusions, especially over the sensitive issues such as diagnosis.

In addition, it is expected that with the collaboration of MOPH, a team of specialists, including medical, neurological and psychiatric experts, will provide necessary services to identify other handicaps, such as hearing and vision related problems, epilepsy.

Screening is a pre-admission step which provides an opportunity for record review and examination of all assessment. Parents and other care-givers are requested to indicate their expectations, concerns and resources. The information obtained from the screening stage could be used as one of the criteria for admission to the programme (Groden et al, 1991).

On the basis of a clear diagnosis of autism, the programme will develop detailed selection criteria, including the following:

i) Individuals must have a clear developmental history consistent with a diagnosis of autism prepared by a well-recognized body or forum. The child's application should be accompanied by a complete health report, such as current medical evaluation, psychological or developmental evaluation assessment;

ii) Individuals must be between 4 and 15 years of age and be able to benefit from the programme throughout its duration;

iii) The family of the child must show commitment, and a desire for greater involvement in the child's welfare, and positive interaction with the programme.

iv) Individuals requiring medical care or having multiple handicap will not be enrolled at this time due to the lack of necessary resources to provide the needed care.

As suggested by Schreibman (1988), prior to admission the programme will arrange an interview with the parents of potential pupils. Areas to be explored during these interviews may include prenatal difficulties, social responses, speech development and language abilities, presence of self-

stimulating or self-injurious behaviour and appropriateness of expressions of emotion and affection.

In addition, the programme will consider the first six months as a probationary period. Individuals' places on the programme will be confirmed, with the following excluded:

i) an individual who remains a danger to him/herself and others despite extensive support in which case the parents will be requested to place the child somewhere else;

ii) an individual who has reached a level of functioning which requires that s/he be placed in a more suitable programme.

Assessment will be presented in the form of a profile that highlights the child's development level in relevant areas as well as the presence of behavioural problems and other handicaps.

6.6 Support Services and Facilities

Support services and facilities constitute an essential ingredient for any programme for special-needs' children, including autistic children. A survey of Her Majesty's Inspectorate for Schools (HMI), a UK organization, concluded that the service provision did make a difference to the school and the children who receive support (DES, 1989). Schopler et al (1984) argued that comprehensive services for autistic children must be developed in the major areas of life: home and family, school and special education, and the community and its shared responsibilities. As the autistic individual matures, activities in the community rather than the classroom are able to prepare him/her better for productive work and functional involvement after graduation (Kellegrew, 1995).

The support services may also take the form of medical or paramedical supervision, alternative systems of communication, modification in buildings or furniture to cater for children's needs, or arrangements for handicrafts, art or

physical education. The close cooperation between teacher and support-services staff is essential to the effectiveness of the programme.

In designing the proposed programme, we will indicate the support facilities or related services needed for its effective implementation. These include a teachers' manual and resource specialists, such as speech therapists. In addition, they may include the development of clear and standard instructions to deal with different situations, availability of educational equipment, resource rooms and classes. Support services may include experts, such as a general practitioner, pediatrician, child psychiatrist, school psychological service, occupational therapist and others who can provide important contributions in the remediation of the child's condition.

The medical service is not yet an eventual part of the support services. Medical care for individuals with autism is complex and multidisciplinary, due to many factors, including lack of understanding of the aetiology of autism, the challenges in performing medical tests on the individuals, the increased incidence of behavioural and physical problems and, lastly, the inadequacy of the present care system in both countries.

Individuals with autism have many of the same health-care needs as other ordinary individuals, in addition to specific needs imposed by the biological and behavioural factors associated with autism. The need for comprehensive health services originates from the complexity of the syndrome and the inability of children to communicate their pain or feelings. This necessitates constant supervision by teachers, parents and other staff to observe any sign of illness. This implies a planned programme for health check-ups in all areas.

Within the programme, the need for such services is essential and could be coordinated with a hospital or medical centre in the area. This is in order to overcome the inability of most of the medical staff, including the doctors

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and kind of training attended (Wall, 1979), an appropriate staff ratio and teachers' ability to obtain accurate knowledge about of child (Brown, 1993).

In order to have an effective programme, we must carefully assess the experiences and skills of each teacher in relation to the programme and identify areas for potential training. Such assessment is a complex process but when implemented will provide the seeds for a comprehensive training programme.

The level of expertise includes the teacher's ability to learn, which is an important factor because both in Kuwait and Saudi Arabia, teachers do not have the exposure and experience needed to educate autistic children effectively. This is clear from the low educational-experience profile as indicated in Chapter 4. Needless to say, the training of teachers, specifically to work with autistic children, is non-existent. This underlines the need for a comprehensive training and development programme for teachers and staff in order to achieve the programme's effectiveness.

One approach used in training teachers is the generalists' training model of the TEACCH programme. Within this approach, teachers are trained as generalists who are expected to know the entire range of problems associated with the syndrome (Schopler, 1989). Teachers and staff need particular training in the relationship between cognitive or intellectual development, skills learning and communication and emotional normalization of personal relationships (Trevarthen et al, 1996:176).

In contrast with the situation in general education, a high staff ratio is essential in special education, in particular for work with autistic children. This is needed to maintain the child's performance, provide better communication and to prevent withdrawal by the children. One of the factors pertinent to autistic children, which necessitates a high staff ratio, is the lack of communication among them (Romanczyk and Lockshin, 1981). In order to improve communication effectiveness and ensure each child's progress, groups

of two or more teachers in the programme will be organized, headed by the most experienced one. Such arrangements will serve in the interim until teachers are trained.

Due to expected substantial staff absence, the programme should consider the use of supply of temporary teachers. An HMI survey in England found out that in 18% of primary mainstream schools surveyed, pupils with special educational needs were being taught by supply or temporary teachers (Lewis, 1995). Similar to the situation in U.K., it is expected that high absences will occur due to sickness or other causes provided in civil service law in both Kuwait and Saudi Arabia.

The importance of the teachers' manual lies in its ability to guide the teacher towards fulfilling their duties and in the clarification of the expected roles of the teacher. With this programme, a manual will be prepared and upgraded gradually as experience is accumulated. As far as resource specialists are concerned, some speech therapists are available in Kuwait. However, the availability of their services is in doubt. Consequently, it is expected that the teacher will, in a way, play the role of speech therapist. Training will be needed in this regard. Other personal requirements will be ascertained through personal interview and continuous supervision.

Many teachers have called autism "the ultimate learning disability" because children diagnosed as autistic have multiple sensory and neurological problems. Any single distortion of the senses, such as problems in decoding sound or shifting visual attention, can have devastating effects in the classroom. Some students face several of these challenges, perhaps involving all five senses.

Teachers of autistic children need help in recognizing subtle signs of neurological development, modifying the class activities, and setting attainable goals. Occupational Therapists, Communication Disorder Specialists and

Psychologists may help the teacher recognize the individual student's pattern of learning and baseline performance. Teachers should be encouraged to get valuable information about the student by speaking with the parents as well as with specialists. By sharing information they gain a more complete data-base and, therefore, a more useful profile of the student.

After the first 30 days of school, the teacher could be requested to write her Individual Education Plan (IEP). The details of the IEP, which will be discussed in Chapter 7, may include the following objectives;

(1) Recognizing how the student responds to different sensory stimulations.

(2) Identifying the student's best channels for learning;

(3) Identifying activities and interests that motivate the students;

(4) Developing a reward system, based on the student's interests;

(5) Making sure the student understands the reward system and can work within it;

(6) Evaluating the student's present skills and set goals for the year's end;

(7) Designing a communication system that keeps parents aware of behaviour at school and informs teachers when changes/incidents occur at home.

6.9 ROLE OF THE CLASSROOM ASSISTANT AND SUPPORTING STAFF

A classroom assistant is a sub-professional assignment to a classroom to support teachers and activities of a non-instrumental nature, such as material preparation, supervision of independent tasks and record keeping. The Warnock Report of the United Kingdom addressed the issue of classroom assistance in special-needs schools. It is suggested that for those children requiring regular training in feeding or self-care, there should be one assistant to every four or five children. The teacher usually has to prepare and set-up these activities while the assistant supervises them. It is, therefore, important

that classroom assistants be given the training needed to fulfil their role. A classroom assistant is expected to be a facilitator, in helping children with disabilities to do what other children do for themselves. In addition, he/she will relieve the teacher from situations which interfere with the teaching process. Assistants' responsibilities will usually include the supervision of ongoing work, supervision of repetitive work or practice and supervision of the application of established skills or knowledge.

However, as indicated earlier, in the early implementation of this programme, one of the teachers will be acting as an assistant teacher alternatively with other teachers. Though this will increase his/her workload, nevertheless it should contribute towards changing the teacher's attitude toward autistic children.

Working with autistic children is a new challenge to the Kuwaiti and Saudi Arabian teachers because they are used to working with children who require modest assistance, in contrast with educating autistic children. Furthermore, the availability of servants and domestic helpers has encouraged teachers to utilise the services of unspecialized assistants to take care of all the living needs of the child, such as going to the bathroom, cleaning and eating, though it could be argued that these are part of the teacher's responsibility. Since such activities increase areas of interaction with the child, the teacher may utilise them to enhance communication or social relationships with the child. In order to be able to evaluate the child's progress comprehensively, she should be involved in all those activities. As such, it is suggested that there should be two graduate teachers and that hopefully, through understanding and cooperation, they will be able to function well without the need for assistants. The greater use of collaborative teaching where two teachers work jointly with their class might encourage more flexibile teaching and allow one teacher to carry out assessment and record keeping (Lewis, 1995).

6.10 <u>TEACHING METHODS AND TECHNIQUES</u>

In any educational programme, there is a strong association between the aim of the programme and the teaching methods. This is more important in our programme because in addition to satisfying the programme's aims, efforts should be exerted to enable the individualization of the curriculum and teaching for any pupil.

In any programme for special needs, the method is as important as the content. What matters is the way in which the teacher generates enthusiasm and plans the teaching. The teaching of autistic children in a structured way in Saudi Arabia and Kuwait has taken place only in the last two years. Structured teaching means that children diagnosed as autistic are provided with special educational facilities, with specialists employed to teach them under structured conditions. It means the extent to which the teacher decides on the material to be worked with, the amount of time the child has to work and the manner in which s/he has to work (Groden and Baron, 1991).

Brennan (1985) has suggested a number of different criteria for modification of teaching methods to cater for special needs, including; relevance, individualization, modification, integration, generalization linking, reinforcement, responsibility, communication and sources. In addition to the indicated criteria, the most important criterion in this process is the careful modification by the teacher of methods, according to the child's needs.

During selection, it is important to consider, in choosing between self-contained and departmentalized classrooms, the age of the child, the focus areas of the curriculum and the priority of needs from the parents' perspective. The self-contained approach will allow the teacher the maintenance of that sameness which is essential for autistic individuals, who are easily upset by any deviation in the structure of teaching. Nevertheless, it will lead to a limited social and educational interaction for the student since s/he will be confined to one teacher. In addition, such an arrangement may lead to the burn-out of the

teacher, who will have to deal with continuous difficult behaviour. Departmentalization will allow for better teaching in the special areas, and will, in addition, permit wider social interaction for the student, since s/he will interact with many teachers. However, such an approach does not allow for continuity in dealing with a specific behaviour of the child all day long, which is sometimes a prerequisite for the success of the treatment. Furthermore, the teacher will not be able to provide in-depth behaviour modification for the child.

In the early years of our programme, in order to benefit from both approaches and to minimise their negative aspects, we will focus on the self-contained classroom, while departmentalized classrooms will be used only in non-academic areas, such as music, religious teaching and physical education. With continuous evaluation, such focus may be modified.

6.11 RECORD KEEPING AND REPORTING

As indicated earlier, the teacher's understanding of the child's needs is the most critical factor for the effectiveness of this programme. One effective tool in providing information about the child is record keeping, something which has been emphasized by many researchers (e.g. Brennan, 1985; Lewis, 1995). In addition, it will indicate the attainment of specific behaviour or skills within the core-curriculum areas. Such records could also be used for evaluation purposes, as indicated in Chapter 8. Such records, if designed appropriately, will enhance the effectiveness of teachers as behaviour analysts (Hawkins et al, 1976). Kept within the intimacy of classroom, they will provide information upon which the teacher bases her daily decision making and re-shapes her work to the needs of the children. The aim of the record is to chart the progress of individual children through curriculum objectives (Brennan, 1985:104). Lewis (1995) suggests that classroom records may be prospective (teaching plans for the short, medium or long term) or retrospective (child's learning assessment).

Reporting to parents on the child's progress in school is an effective tool to facilitate better communication and encourage their greater participation. In

the U.K. and other developed countries, schools have a mandatory duty to provide the parent with essential information, including the child's level of achievement and curriculum subjects (Wolfendale, 1993). In Kuwait and Saudi Arabia, similar arrangements exist, at least in theory. However, reports tend to be ill-informed, descriptive and subjective. Parents' need for a daily or weekly progress report was rated highly with a mean of 3.85, the highest among the factors relating to programme implementation (Table 5.35). This emphasises the importance of having progress reporting as an essential component of the programme.

As such the programme will include a system of daily, weekly and monthly reporting. The record keeping of the teacher will be sent daily to the parents, in addition to a sample of the children's work, though, in order to enhance parent-teacher contact, parents are more satisfied when they visited the school (79.2%) as compared with a note book carried between home and school (62.4%). However, parents in both countries are expected to visit school less frequently. As such, reporting becomes an essential component of the programme. Lewis (1995) suggests that the report should focus more on what children had learned than what teachers had taught. The monthly progress report will contain the child's achievement, the area of curriculum covered, examination results, attendance records and any relevant information. A model format will be developed for weekly, monthly and yearly reports. The design of the format will take into consideration that the report should be useful, manageable and easy to interpret, as suggested by Lewis (1995). The programme may also benefit from the work of Wolfendale (1989) which produced the 'All-about-me profile', comprehensively reporting the child's progress. However, for daily record keeping, the class teacher will be given the main areas to emphasise, but the format will be left to her discretion. The challenge to any reporting is how to engage parents in the interaction process with the school so that such flexibility will be crucial.

As suggested by Wolfendale (1993:161), the reporting could be

reciprocal. The components of the report could include the following:

- report on the progress of the child;
- exchange information about his activities both at school and home;
- record and discuss concerns;
- agree on learning goals;
- identify special needs;
- monitor and review progress.

6.12 PARENTS AND FAMILY

The role of the parents is essential in the development of the programme at all levels (Wing, 1986). As stated in the Warnock Report (1978):

The successful education of children with special educational needs is dependent upon the full involvement of their parents... The relationship between the parents and the school which the child is attending has a crucial bearing on the child's educational progress. On the one hand if parents are to support the efforts of teachers they need information and advice from the school about its objectives and the provision being made for their child: on the other, a child's special needs cannot be adequately assessed and met in school without the insight that his parents, from their more intimate experiences of him, are able to provide.

The importance of involving the parents derives from the fact that parental support for the school activities for autistic children is a major factor in the child's progress (Kellegrew, 1995). Family functions at home have a great impact on the child's performance at school since s/he spends most of his/her time at home (Shriver and Kramar, 1993); the designers of programmes should, therefore, foster parent-school collaboration. However, in Kuwait and Saudi Arabia, as indicated in Chapter 2, this parental role is currently greatly neglected, due to the philosophy of the education system and practice. The interaction is only a one-way form of communication (from school to parents),

where the expected role of parents is to support the child with their homework.

Full partnership between parents and professionals is of inestimable benefit to the child, and may result in parent self-help groups and parent education. The parent education programme is designed to improve parents' knowledge about their child's care, his/her disabling conditions, their child's educational programme context and goals, family living and similar topics. Parent education programmes have proved to be a cost-effective and efficient means of intervention for autistic children (Howlin and Rutter, 1987; Moes, 1995). Both short and immediate gains have been noticed for children as a result of such programmes, though there are conflicting findings on long-term gains. Such limitations on gains for the long term could be attributed to the limitations of parents in sustaining the learning and scarcity of time for long-term commitment. However, a parent education programme can provide a broad range of improvements, including child gains and reductions in parenting stress associated with autism. Parents in both Kuwait and Saudi Arabia have responded favourably to such a programme. All felt the need for a parent-awareness programme which would include lectures, conferences, training courses, etc. (Tables 5.14 and 5.36).

The importance of joint home-school activities for the development of the child is well recognised (Wolfendale, 1993; Pell and Cohen, 1995). Studies suggest that parent training is superior to clinical treatment which does not include the participation of the parents (Schreibmen et al, 1984). Parents are an important source of information about the child's special needs as well as providers of rich input to development of the educational plan. For example, methods of management that have been successful at school or home could be exchanged and solutions to problems may be discussed. In addition, such joint activities can serve as an excellent communication instrument about home circumstances and advise the school of any special interest or talents that the child exhibits at home. Furthermore, the parents can play an important role in securing integration between home and school teaching, as well as

complementing the child's learning process at home and in the community. Furthermore, parents are an essential resource in assessing their children's development and learning progress (Wolfendale, 1993:3). Experience also shows that the parents of special-needs' children are cooperative and supportive, and in many countries are the major donors for the budget of the school. In many instances, the parents use their influence and experience to build links between the school and the community. Furthermore, if organised in a strong parent advocacy organization, as in the West, parents can provide the political pressure needed to increase resources for those children (Peterson, 1995). When parents in Kuwait and Saudi Arabia were asked to indicate the importance of periodic parents' meetings, 93.5% responded favourably (Tables 5.14 and 5.37).

Groden and Domingue (1991) indicate that two basic counselling models are used in parent training: reflective and behavioural. The former emphasises parent awareness, understanding and acceptance of the child while the latter focuses on the observable behaviour of both the parents and the child, especially their interaction. It seems that in our programme, a combination of both reflective and behavioural counselling is warranted.

An important factor to be considered is whether parents' training will be on an individual or group basis. Groden and Dominigue (1991) have discussed the advantages and disadvantages of both. However, in our programme, training on general issues, such as simple behaviour modification, could be considered in groups, while complex behaviour or specific problem treatment may be done on an individual basis.

In designing the programme, there is also a need to look into the factors pertinent to the parents and families. These include the parents' expectations and training needs, problems with siblings, availability of extensive in-house behaviour management training and availability of programmes to treat the pain and stress which usually exist in any family with an autistic child. Such stress

occurs due to the multiplicity of demands created by such a child (Bristol and Schopler, 1983). Furthermore, the lack of public services and social understanding puts a heavy burden on these families. Consequently, parents are under increased family stress. Hawkins and Singer (1989) indicate that teaching parents specific stress-management approaches can significantly enhance their ability to cope. Like those of other severely handicapped children, parents of autistic children need considerable support and guidance. Hodgson (1995) indicated three common areas of concern for parents, such as management of behaviour, violence and behaviour in relation to their environment and teaching/learning strategies that are effective for their child and his/her future.

As indicated in Chapter 3, siblings of autistic children could be affected by the occurrence of such a syndrome in their sister or brother, though studies do not indicate in which direction the impact occurs, positive or negative (Howlin, 1989). Consequently, there is a need to look into sibling adjustment and performance at home and school (Wall, 1979; Groden and Dominigue, 1991). Siblings should be aware of the causes of autism, as well as of coping strategies. The cooperation of siblings may prove extremely valuable to the welfare of the child, as well as decreasing the stress of the family. The creation of a sibling group, where brothers and sisters of individuals with autism can interact and share their problems, could be a useful tool.

Most of these factors will be considered in the programme. Items related to parents' expectations were included in the questionnaire that was administered to them, and the findings will be incorporated into the design of the programme. Such results were detailed in Chapter Five. Nevertheless, the designer should take into consideration that in both countries, parents' expectations about services for special needs have risen, escalated probably to hopelessly unrealistic levels when set against the programme resources. A similar trend was noticed amongst parents in Britain (Lewis, 1995). The programme should increase parents' awareness about realistic performance

expectations for their child.

Concerning the training of parents and the members of family, the programme may include seminars and workshops which aim to train teachers as well as parents in dealing with an autistic child. Helping parents to develop effective management strategies for coping with behaviour problems will be an essential ingredient of their training. For those families which nee'215*^U selling to cope with depression and stress, the programme will provide information on the sources of help available. Nevertheless, the design of the programme will emphasise the need to dedicate one staff member to work with the families, especially in view of the diversity of such autistic children's needs.

The programme will include the establishment of a parents' support group, whose main objective will be the provision of emotional, psychological and practical support and sharing of relevant information and resources. Studies suggest the crucial importance of such a group in the family's everyday life (Albanese et al, 1995). Social support can be obtained from many sources, such as family members, professionals and the wider community. The group will discuss ways and means collectively to support the programme and at the same time provide the necessary guidance to the coordinator of the programme about new expectations and the needs of autistic children. It is expected that such a forum will provide a lively exchange of ideas for all concerned, as well as a tool to mobilize support and funding.

However, in order not to overload the programme in its early stages and because of limited training capacity, it is felt that some training component could be considered at a later stage. For example, further extensive behaviour-management training and assistance will be provided to the family and siblings to adjust and enhance the autistic children's performance at home and school.

6.13 RELIGIOUS EDUCATION

The issue of religious teaching and autistic children has not attracted wide attention in the research. There are few good studies of the effect of spiritual teaching on individuals with autism. It may, therefore, be interesting to examine such an issue within the context of both countries' cultures.

As indicated in Chapter 2, both societies of Kuwait and Saudi Arabia are strongly rooted in religion. The teaching of Islam as a way of life is essential in education, because it is a living force manifested in every aspect of human life in both countries. The injection of spiritual teaching for both the child as well as the child's family will make it easier for parents to cope with day-to-day difficulties, and will enhance the family's motivation and commitment to the child. The importance of having religious education as part of the programme lies in its role as a link with the general curriculum. The first goal of education in Kuwait is to promote belief in Islamic principles in a way which will allow these principles to become a way of living and thinking (MOE, 1976). Similar goals exist for Saudi Arabia (Al-Salam, 1990).

Bristol (1984) indicates that mothers of autistic children have given a high rating to the importance of religious belief. This concurs with a similar study of the religious mothers of mentally handicapped children who were able to cope better with the stress of their situation (Friedrich et al, 1988). This indicates the value of religious support and beliefs in coping with the stress of having an autistic child. In our survey, surprisingly, parents were less enthusiastic about religious teaching than about art lessons. The latter had a higher approval rate (a mean of 3.73) while the former's rating was lower, with a mean of 3.51 (Tables 5.32 and 5.33). As suggested in Chapter 5, this may reflect confusion and doubts in parents' minds about the abilities of such children to develop spiritually, although the parents may be true believers and advocates of religious education for normal children, they are not certain that their autistic child is mature enough to absorb such teaching.

Brown argues that religious education offers a hope and promise to special-needs' children, including raising questions about the meaning and purpose of life, the development of each child spiritually, living purposefully in accordance with the faith of the family and community, and the penetration of the heart of human experience (Brown, 1993). Peterson (1995) argued that religious belief is more important than many services provided to the child or the family. Nevertheless, the impact of such belief on the child and the family will depend on the latter's religious conviction and society's attitudes towards religion.

The religious education aspect of the programme will focus on Islam as a revealed message in which Allah enjoins Muslims to be faithful, acquire Islamic status, enhance their knowledge and improve their life (Ramzi 1993). The importance of having religious teaching originates from the fact that the Islamic faith is a religion which regulates all aspects of human life, including conception formation and theory making. Islam should be adopted as a complete code of life. In the programme, we will emphasis mainly the Islamic faith and at the same time practice some of the main forms of worship, such as prayer, fasting and zakat. These are the obligatory duties of Islam.

We will focus on bringing awareness to the children about their simple faith, the practice of prayers, the need to care for themselves, and to prepare for religious feasts. Through stories, stage performances, parties and religious symbols, the religious concept will be developed. In addition, the children will join festivals and recite Quranic verses.

In Kuwait and Saudi Arabia, parents usually take their children to the mosque, especially on Fridays. If the programme is able to educate the autistic child to observe appropriate behaviour while in the mosque and to perform simple movements, it will bring happiness to the father and it will give him the confidence that his child could be accepted by others. In addition, it gives him more pride in the child rather than feeling he should isolate him as is the case

now.

6.14 Physical Education, Craftwork and other Non-academic Activities

The value of physical and creative skills for the mentally handicapped has been well established. The potential contribution these activities can make towards adjustment and fulfilment is widely recognised. Hughes (1975) indicated that poor progress made by the autistic children is indeed due to the absence of physical education and creative activities in the curriculum. Rutter, Tizard and Whitmore (1970) found that physical and creative activities which involved a strong sensory-motor component have great value in the development of mentally handicapped children, and suggested that they should be part of the curriculum.

The literature has established that mentally handicapped children tend to experience a delay in sensory-motor development (Wenar et al, 1986; Demyer et al, 1981). Non-academic activities, such as physical education and crafts, which are primarily sensory-motor based can, therefore, help to develop the abilities of autistic children.

All these non-academic activities, such as arts and crafts, music and physical education, though presented here as separate components, could be seen as part of an integrated educational approach. They could be integrated by working on themes or using a project approach. For example, the sea and water could be a theme and activities selected to reflect this, such as listening to music reminiscent of waves, visiting maritime museums, going swimming, drawing pictures and craft activities using shells collected from the beach. The location of Kuwait, as well as Jeddah city in Saudi Arabia, on the sea shore will help in implementing such an approach. With this integrated approach, we can combine all these non-academic activities within one theme.

6.14.1 Physical Education

The importance of physical eduction for autistic children lies in the fact

that communication is developed through movement and play between child and adult and later between the children themselves. Physical education will also increase the child's self-confidence and self-esteem (Sugden, 1993). So in certain areas, physical education could be a preparatory step for the development of the autistic child's language. Physical education also tries to help in one of the biggest problems for autistic children, namely inability to concentrate and to learn from experience. Though the aim of such developmental-movement programme is primarily to foster sensory-motor development (Mann et al, 1974), it can contribute to the growth of the child in all areas.

Many studies (Kern et al, 1982; Watters and Watters, 1980) indicate that physical exercise can reduce self-stimulatory behaviour and other inappropriate actions and obsessional movements (Sherborne, 1979; Cannor, 1990). Furthermore, these studies indicate better concentration on academic skills after attending PE sessions. An exercise programme is an excellent natural setting to teach activities related to social behaviour and other cognitive tasks which occur normally during the sessions.

A study by Webber and Thorpe (1992) indicated that autistic students perform academic work better and have fewer behaviour problems when they work on a variety of tasks, rather than doing the same thing until they master it. The study argued that students perform better at academic activities when the tasks they have not mastered are interspersed with tasks they have already learned. The study emphasises the importance of having both approaches - task variation and interspersing previously mastered tasks -as a tool to increase the performance of autistic children in a physical education programme. Larson and Miltenberger (1992) have supported other numerous studies, which show that individuals with autism will exhibit fewer behaviour problems following a physical education exercise session. They suggest, however, that there are limits on the universality of the effectiveness of intensive exercise for behaviour modification. Though parents have supported the inclusion of such sessions

in the programme, their approval was not as high as expected. The mean was 3.44 (Table 5.30) and ranked lowest except for music lessons (Table 5.14).

Any physical education programme should include as wide a variety of activities as possible so the children can extend their range of skills and learn to cope with a variety of environments. Gymnastic apparatus, swimming pools and other sports facilities should be available, as well as outdoor games adapted to the skill and interests of the children. Other outdoor activities, such as visits to places of interest, camping in the desert or horse-riding are also valuable, but their inclusion depends on the progress of the programme and the availability of supervisors and facilities.

As suggested by many authors, swimming is a valuable activity for mentally handicapped children because it will lead to better development of skill and play (Sherbone, 1979; Sugden, 1993). The programme will focus on swimming because the countries concerned have extensive coastal areas and most families spend their holidays by the sea. Since most families practice swimming during their leisure time, learning swimming will enable the child to participate socially in family activities and reduce his social isolation. Moreover, for half of the year the weather in both countries is too hot for outdoor physical education. Consequently, swimming could be appropriate for all-year-round activity.

Teaching special education requires the combined efforts of the class teacher and the PE specialist. The involvement of the class teacher is important because s/he or she knows the children better than anyone else. In the programme, children will be given a great deal of physical play, but it will be a gentle rather than rigorous kind of play and will most likely on a one-to-one, rather than group basis.

Physical education can have a great impact since any fine and engrossing movement experience can help reduce children's obsessional

behaviour (Sherborne, 1979; Kitahara, 1983). A weekly one-to-one physical session with a skilled specialist may help to reduce the resistance of the autistic child to new experiences and allow him to share his words with others and enjoy playing with them.

In our programme physical education is planned to be safe and will aim at improving the child's gross motor skills as well as using these skills for games and sports. The programme will focus mainly on swimming and simple outdoor exercise.

6.14.2 Music

Music has a great potential value in teaching handicapped children (Michlelutte, 1974; Schalkwijk, 1994; Perry 1995) including those with autism (Baron-Cohen and Bolton, 1993). Music can bring pure enjoyment to autistic children and at the same time will bring many other benefits, such as increased self-awareness and integrative and self-organisational experiences (Traverthen et al, 1996:160). Music therapy seeks to use music as a facilitating agent, a psychotherapeutic method of care (Schalkwijk, 1994) or a therapeutic tool to develop further the autistic child. It encompasses activities such as dancing, singing and playing instruments. Though autistic children enjoy music, the experience will, however, become more valuable, as Hunt said, 'if we include simulation and awareness of sound and rhythm in teaching the programme and the range of opportunity for children to practice noise making themselves' (1979:57).

Music can help children to communicate and express emotion and will provide a pleasurable group experience (Trevarthen et al, 1996). As Hunt (1979) indicates, music can produce affects in three main ways, intellectually, physically and emotionally, and will attract children's attention. It also provides tremendous scope for teachers to plan for each child which is appropriate to his individual developmental needs. It has been established that music is an effective means of language development (Hunt, 1979). From the parents'

perspective, the inclusion of music lessons receives the least favourable responses with a mean of 2.83 (Table 5.31), and 21.7% of parents felt that it is not important (Table 5.14). In order to decrease potential parental resistance to its inclusion in the programme, the programme will focus on those instruments and songs considered part of the national heritage.

The effectiveness of music therapy will depend on the availability of a qualified music therapist (Schalkwijk, 1994) able to make careful assessments of the child's capacity and to design a programme with specific objectives that fulfil his/her needs. Consequently, the extent of implementing such a technique within our programme will depend on the availability of such expertise within the country.

6.14.3 Arts and Crafts

The importance of arts and crafts activities cannot be overemphasised. They allow non-verbal self-expression through the manipulation of materials and enjoyable activities for the severely mentally handicapped, as they give them the chance to express their feelings. Arts and crafts can contribute effectively towards the child's entire social and intellectual development. They may help the child to gain confidence in his own ability and to develop his positive self-concept. Parents of autistic children responded favourably to the inclusion of art lessons in the programme, with a mean of 3.73 (Table 5.32).

Art will be of maximum benefit to the child if the teacher can help in providing a stimulating environment. Furthermore, the teacher will enhance the child's development if he/she develops his observational skills and tries to link the arts activities to the major areas of the curriculum. During art classes, the teacher can increase or stimulate critical awareness of the material as well as encouraging discovery learning of substances such as paints and clay.

Non-academic activities are crucial elements in any curriculum for autistic children because some of these children have special skills (abnormal abilities),

such as unusual drawing ability or musical talents which could be developed to maximum potential.

6.15 CONCLUSION

One of the major considerations in designing the proposed programme is the treatment of the child as a whole person as well as in relation to his family and to his indigenous environment. Any effective programme should be built on the achievement as well as the failures of other approaches currently implemented and take into consideration the special nature of the surrounding environment.

Within the context of Kuwait and other oil rich countries, the general principles that should be considered while designing a programme include: a sound theoretical background, understanding the pertinent conditions of autism, understanding the need of all concerned, comprehending the prevailing social attitudes toward the condition and the selection of appropriate curriculum areas. The designer should also take into consideration such factors as channelling the challenging behaviour, providing a link to the general and special education curricula, individualized education programmes and the provision of anticipated administrative requirements. Other general principles to be considered include the language of the programme, the use of segregated environments rather than mainstream or full-inclusion classes, the maximum utilization of adaptive technology and the gradual but adequate exposure to the wider community and environment.

Though the programme will have detailed objectives as indicated in this chapter, the main goal is to improve the welfare of the child and that of his family. In order to maximize the benefits from the programme, a clear selection and admission procedure has to be established.

In addition to educational needs, autistic individuals require an array of support services, recreational and vocational facilities and medical services.

Recreational activities are essential for autistic children since they can reduce inappropriate social behaviour and enhance the children's social and communication skills. The lack of understanding of the causes of autism, in addition to emotional and behavioural problems, necessitate concerted efforts among all those concerned with the welfare of the child. It will be the role of the Programme Director to indicate the support services needed for effective implementation of the programme and their use in a coordinated approach.

The role of teachers and their assistants is essential for the effectiveness of the programme. Nevertheless, in the early stage of implementation and to be able to modify their attitudes toward the children, the teachers will perform most of the functions of para-professional or teachers' aides. The class will be a self-contained one, but the programme will gradually shift toward more departmentalization.

Due to the nature of the disability and the stress associated with it, families of autistic children need multiple forms of support: emotional, instrumental, natural, spiritual and physical. Social support and parent dedication are important factors in promoting the healthy functioning of the family. Since the family functions have a great impact on the child's performance, greater family-school partnership is expected and desired. Such principles and components will not be effective, however, without a clear and comprehensive implementation plan, which will be the subject of the next chapter.

CHAPTER SEVEN: THE PROGRAMME COMPONENTS AND ITS IMPLEMENTATION

This chapter will deal with the implementation of the different components of the programme. We will try to focus mainly on the educational component in light of the huge need for it in Kuwait and Saudi Arabia. Previous chapters have indicated the requirement for a unique programme for autistic children that will fulfil their needs within their environment and the prevailing social values. After examining the elements of the programme design comprehensively in Chapter 6, this chapter will focus, in the beginning, on formulating the overall programme as well as the programme's seven critical areas. To this end, the chapter discusses many approaches to structured teaching. It elaborates on the different components for family support, training and staff development, recreational and vocational services and support and health services. These components are essential in increasing the effectiveness of the educational process. The chapter also describes the different activities which will increase awareness and knowledge about autism, and concludes with an evaluation of sources of resistance to change and efforts for institutional arrangements and ways and means to overcome it.
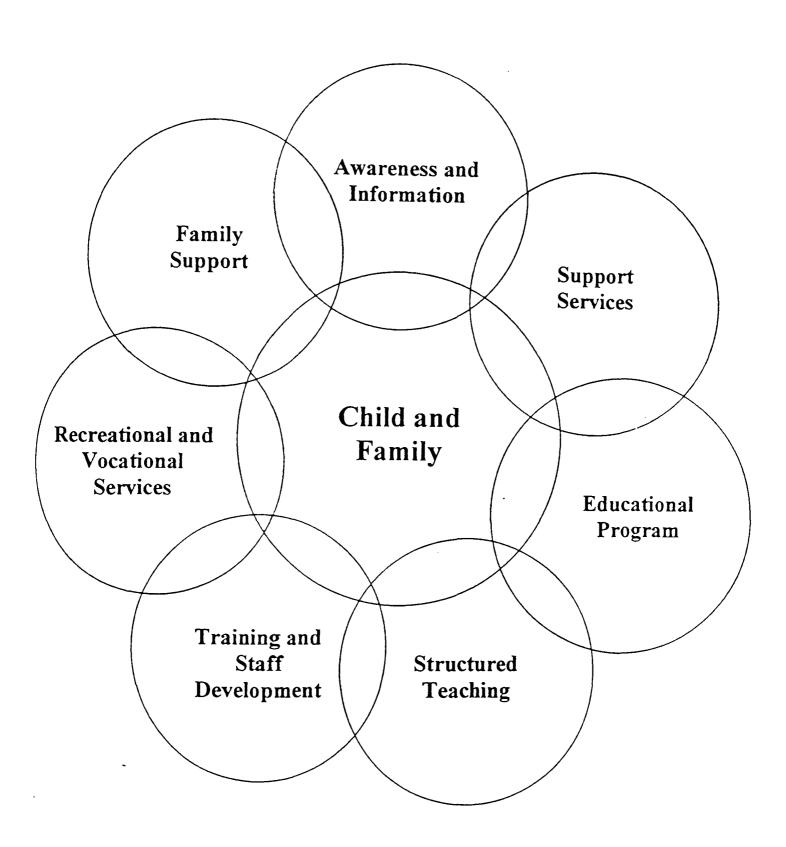
7.1. The Focus

The focus of our programme will be mainly on the child as well as his family through combined behavioural and educational approaches. We have selected both the child and the family as our focus because of the need for the continuous interaction which is necessary for the child's educational advancement. The role of the family as therapists or indirect change agents is well recognised (Groden and Dominigue, 1991). From the available services models, we have selected the whole-child model advocated by Groden Center in the USA (Groden and Baron, 1991) as well as the TEACCH model (Schopler et al 1984; Schopler, 1989). This latter model focuses on those services and

activities that are most likely to improve the lives of autistic children and their families, now and in the future. As per figures 7.1, the programme will contain seven components - (1) educational programme and instructional methods, (2) structured teaching and instructional materials, (3) family support, (4) training and staff development, (5) recreational and vocational services, (6) support services, (7) awareness and information. Other components will provide the comprehensive services required to promote the full potential of these children and to avoid any imbalance in the child's development or disturbance to the family system (Groden and Baron, 1991).

These components, hopefully together with effective implementation, will be able to develop the child to the desired level. We will focus on those given elements in the educational process which, from the perspective of parents as well as the specialists, are essential for meaningful development of the child. In addition, we have taken into account the dynamic interaction between these components and the family and the child him/herself. So the programme is itself an interaction process between the focused curriculum areas and the services complementing it. It is also an interaction between the family, the child and the surrounding environment.

Within this model, major and relevant issues extracted from the literature, parents' questionnaires and the panel of experts were considered. Definitions were presented when and where needed. Suggested services and facilities should provide a systematic and consistent support to the education of autistic children and address the problems that are specific to them. This chapter starts with the educational components of the programme.

Figure 7.1

Modified from the system of care framework by Stroul, B.A. and Friedman, R. M. (1986). A System of Care for Severely Emotionally Disturbed Children and Youth', Washington, D.C., CASSP Technical Assistance Center, Georgetown University, Child Development Center.

7.2 Educational Programme

In contrast to educational and behaviour modification approaches, the curriculum for autistic children has received minimum attention. This may be because of the emphasis, to date, on the treatment and care rather than educational models. The lack of a clearly defined curricular focus is another factor. The assumption has been that autistic children could be served through the regular education curriculum or the special educational programme taught by a special education teacher. However, such a judgement has been proved to be misplaced. This encouraged the Association of Heads and Teachers of Adult and Autistic children (AHTACH) to form in 1983, five small working groups to identify the special curriculum needs of autistic children. Their deliberation will be used extensively in our suggested educational areas of the programme.

The central curriculum issue for our programme is based upon improving communication competence, better behaviour management and enhancing the functioning of the child with his family and the community. Due to the limited resources available, teachers will be encouraged to use a variety of curriculum sources as guides, for example, those curriculum materials used by other programmes or schools.

The proposed education programme will focus on a few critical areas. They are grouped under seven categories: (1) impaired social relationships and self-image, (2) outside stimuli and motivation, (3) adaptive behaviour, (4) language and communication development skills, (5) cognitive skills, (6) motor skills, and (7) disruptive behaviour and self-injury. These areas were selected according to the priorities extracted from the parents' responses, the panel of experts and the review of the literature, as well as from the available curriculum for autistic children. The list demonstrates clearly the diversity and complexity of the symptoms of autism as it has been defined by many authors, necessitating, in addition to core educational areas, individualized plans and considerable dedication. The major areas suggested are discussed below.

7.2.1 Impaired social relationships and self-image

One of the problems of autistic children is their weakness in building relationships. This puts pressure on the class teacher attempting to educate a child with whom it may be difficult to build a meaningful relationship. If such a relationship does not materialise, it will have an negative impact on the achievement of other desired objectives. This raises the significance of teachers' and other staff's attitudes towards the child. These should be well-informed as well as tolerant and empathetic, leading to coordinated efforts to educate the child and contribute to his development. The teacher has to accept the child's as he stands since his difficulties will not be fully cured, and try to resolve some of his problems rather than all of them. The aim of the teacher and staff should be to understand the situation realistically and at the same time work as a team to enhance the child's educational development.

In the area of self-image, the autistic child suffers from a lack of personal identity and has a tendency to remain isolated, occupying himself with his own obsessional or ritualistic activities. The child is usually unaware of himself and the effects of his actions on others.

In order to overcome such difficulties, the programme will implement the following steps, individually or collectively:

1.   Utilization of physical and communication skills to encourage the child to communicate his needs to others. This will help the child complete his assigned tasks, since he will understand them better.

2.   Necessary intervention to remove the child from his anti-social activities and place him in a situation where he must cooperate, whether those activities presented are academic, social, recreational or non-academic.

Giving the students a chance to learn how to articulate their needs and to identify personal feelings will encourage them to become a part of the

community, make friends and eventually develop goals appropriate to their own ability level. It works more positively if a team of instructors at school work with the parents of the students to develop a preventive plan that works for home situations, taking into consideration that physical restraint, difficult school work and any unexpected transitions and situations might upset the student.

3.   Through a structured approach the child will be encouraged to interact with others in social activities and his/her opportunities to engage in isolated activities be limited. Simpson et al (1991) suggest four approaches that are commonly used to promote social development: direct skill instruction, antecedent promoting procedures, peer initiation strategies and peer tutoring.

Direct skill instruction identifies the social skills that need to be developed, then determines the steps required to build those skills and practice them in a variety of settings. In antecedent prompting procedures, the teacher prompts the child to engage in some kind of interactive behaviour, which, if it occurs, is responded to positively by classmates and teacher. The other two approaches require competent peers, which will be difficult to arrange in the current circumstances, so their implementation will be postponed.

The programme could also implement these approaches if we were able to convince the MOE to adopt the principle of mainstreaming or open S.N. classes in the ordinary schools. Another way to overcome such obstacles is to open a night class where the siblings of the autistic children or their friends could participate in the programme. A summer camp could also be established during the school recess, implementing the mainstreaming approach.

4.   Through behavioural approaches and rote-learning techniques, the programme will teach the child to relate to others as effectively as s/he can. Rote learning is an approach which emphasises knowledge acquired by memorization, with little attention to meaning. It is not a very effective

approach, but it demands little from the learner in terms of cognitive skills or awareness (Merry, 1998)

5.   The programme will expose the child to experience outside the controlled and monitored environments of the school, so his/her opportunity to learn to cope with the wider environment will increase substantially. Such community participation will enhance the social image of autistic children and will have positive influence on the public's perception toward them, and will include Outdoor activities and visiting other people's homes, public restaurants favoured by the children such as Macdonalds, Pizza Land, Burger King, etc., public facilities such as shops, zoos and other places of particular importance for the daily life of the child with autism.

7.2.2 Outside stimuli and motivation

Autistic children have a problem with stimulus overselectivity (Koegel and Koegel, 1995), nor do they have the necessary motivation to learn or to experience things around them (Wing, 1986). The teacher needs to provide the necessary motivation, insisting that the child learns to take the next step beyond his present capability.

The teacher has to be aware of the many basic skills that children with autism lack and which affect their education programme. As such the teacher has to make serious attempts to teach skills that other children acquire without teaching while they are growing up. These areas, such as relating to outside stimuli, affect all areas of the child's experience and learning. A systematic approach is essential where the child experiences for himself each new area so that a pattern of learning needs to be established to form a meaningful whole (AHTACH, 1985).

Autistic children have sensory impairment. There is sometimes also an inappropriate reaction to sound and a lack of a sense of danger, as well as inappropriate reactions to change.   In dealing with these problems, the

programme will focus and adopt many approaches:

1.   In controlling the lack of stimuli, the programme will implement sensorial training. Under this approach, the child will be developing the ability to use his senses appropriately as much as he can and limit their inappropriate use. For example, if the child is not trained to deal with loud sounds, he may place his hands over his ears and even flee from certain noises. In some cases, the child may pick up an object s/he sees and throw it at the sound source.

As an example of sensorial training, the child may be asked to go around a table while playing musical chairs. During this time, s/he will be given a flash card with pictures. When the music stops s/he will be asked to match the picture on the card with the name of an object the teacher announces. This will help the child to use his senses appropriately.

Some children do not recognise the feel of different textures. Presenting some textures familiar and attractive for the child, the range of materials used in certain activities can gradually be widened (e.g. finger paint, jelly, whipped cream, jam, sand, water, etc.). This may help him to accept different textures.

2.   A behavioural approach will be used to overcome anti-social or excessive responses. If the child avoids touch, seeks isolation or engages in excessive repetitive movements such as hand-flipping, which may interfere with school work or bother other students, behavioural modification will be helpful. The focus will be on approaches that effectively utilise positive reinforcement techniques.

An example of such an approach is the Positive Behavioural Support programme which assesses the trigger for abusive behaviour and adjusts the student's environment accordingly. This non-traditional programme was developed at the University of Oregon in 1987. While the focus of traditional

behaviour management is to eliminate the behaviour and uses a system of punishments and rewards to achieve to this end, the positive behavioural support approach is preventative because it teaches new behaviour and tries not to react punitively. If the teacher focuses only on negative behaviour together with punishment as the only way to deal with the child, she will find herself in a position where either she admits her failure in changing the behaviour (if it was not exaggerated) or denies this situation by putting more restraint on the child.

3.   A major characteristics of autistic children is the lack of motivation to interact academically, linguistically and socially. As a consequence, other individuals' perception about the child's competence may be affected. Koegel et al (1995) suggest some variables for developing the child's motivation: (1) the child's verbal responding progresses rapidly, if his attempts to communicate are reinforced; (2) her/his choice of stimulus materials; and (3) the variation of the tasks assigned to him. The programme will utilize such available techniques while searching for new means of motivation. The contribution of the teacher toward inventing new means cannot be over-emphasised. Carr and Durand (1985) suggest the use of functional-analysis techniques as an instrument for effective change. Within this approach, the teacher will assess the primary motivation or function of the child's existing behaviour and create the opportunity to provide the child with more appropriate behaviour.

4.   In order to overcome the child's fear, s/he will gradually be exposed to frightening situations through desensitization. Children who are fearful of a doctor, dentist or of other clinical settings, for example, desensitization could be applied by gradual exposure (Pueschel, 1991). Desensitization is a behaviour-therapy technique in which the individual is exposed gradually and systematically to objects, events and situations that evoke fear, the purpose being to reduce that fear.

5.   It is essential to have a high staff ratio to maintain such an acceptable

level of motivation and performance, otherwise the child may withdraw and isolate himself, and the opportunity to learn will be lost.

7.2.3 Adaptive behaviour

As identified in chapters 5 and 6, the lack of adaptive behaviour is clear with reference to autistic children. Under adaptive behaviour, the programme's curriculum will address the following areas.

- ritualistic, compulsive, obsessional behaviour,
- extreme irrational fears of phobia
- rigidity of thought and action
- the lack of adaptive skills

There are many techniques that could be developed to overcome such challenges after careful diagnosis and deep observation. These may include:

1. When obsessional behaviour occurs, the teacher will set limits or a total ban or will substitute such activities through a behaviour-modification approach. Emphasis will be on the child's involvement in learning self-control through procedures such as relaxation training (Baron, Groden and Cautela, 1991).

2. Though children with autism resist change, this does not mean, however, that they cannot learn to accept change. For example, when the child, through past experience expects to have a meal at Macdonalds each Wednesday, s/he will need adequate preparation before any change is introduced. In order to enhance his/her flexibility and adaptability, it is important to identify what environmental stimuli a child relies on for stability, to inform him adequately about the change beforehand, to provide alternatives to the change, when possible, and to enhance the child's involvement in the change when appropriate (Dalrymple, 1995). In response to the fear of change, the programme will be structured in such a way that it will gradually introduce change in order to lessen the resistance that those children experience, until change is absorbed as part of their repertoire. The graded change techniques

as advocated by Howlin and Rutter (1987) could be an effective tool to reduce resistance. Joint programmes could be developed in collaboration with the parents in order to develop these coping skills.

3. The programme will develop a strategy where group work will be developed; choice and a variety of activities will be built in to all areas. Change will be planned in the time table with adequate preparation and reinforcement.

4. Modelling and role-play session will be used in order to improve the child's ability to learn through a variety of experience. Modelling is one instructional strategy whereby a skill or behaviour is taught through demonstrating it. The focus will be on behaviour and skills that will enhance the individual child's life and encourage independence. For example, children need to be taught the community standards on activities such as how to go shopping. By seeing how others behave in the mall and by role-play sessions which show the different situations that the child may face during shopping, behaviour and self-help skills should improve.

5. Devising a strategy to develop a sense of time to lead to more flexibility for time variation among activities. This could be enhanced by having a kind of limit-setting, highly structured educational programme where the beginning and the end of each activity are clear and predictable.

6. To teach the child those adaptive skills which are necessary for dealing with the wider environment. These include self-care, home living, community use, health and safety.

7. To release tension, some relaxation techniques such as physical movement, adopted yoga, music, massage and art activities could be used. It is also essential to ensure the availability of facilities to allow children to play games together as well as allowing for body contact as a technique for release of tension. The use of well-structured exercise could be envisaged.

In addition, the introduction of relaxation procedures as simple as a special relaxation room, providing a space where the student could go when s/he feels frustrated, can have a positive impact. The room can be furnished with a beanbag chair, a cassette player, soft lights, etc. This room can give the child a place to go when s/he knows a crisis is looming.

8.   Since the presence of ritualistic activities is likely to interfere with the child's learning process, a graded-change technique, as advocated by Howlin and Rutter (1987), could be implemented to overcome such difficulties. Repetitive activities will be reduced gradually to an acceptable level. For older children, role-play technique may be useful in overcoming obsessional behaviours.

7.2.4 <u>Language and Communication Development Skills</u>

It is important that language as a communication skill is taught to autistic children because it will lead to significant improvement in social interaction (Fay and Schuler, 1980). Under this heading, we will address the impaired skill of autistic children in the use and understanding of all language modalities - verbal and non-verbal, coding and temporal sequencing (AHTACH 1985). A major aim of the programme will be to aid the children to integrate linguistic, social and cognitive skills by repetition of learning in a variety of settings and the teaching of skills in real-life situation.

Beukelman and Mirenda (1992) warned of a common mistake in teaching communication skills to autistic children, which is to neglect building a strong communicative foundation for these skills. Such a foundation could be established by promoting the use of natural gestures and vocalization in a variety of natural contexts.

In order to overcome impairment in communication, the following steps could be implemented:

1.   The teacher should respond socially and contingently so the child will learn. There will be an emphasis on conversation sessions to be structured and organized in such a way that they will lead to a shared system of signals between the teacher and pupil. The programme will utilize intensive therapy related to the two-way use of language, e.g. answering questions and developing concepts (AHTACH, 1985). The child should be prompted, as needed, in order to teach new communication forms.

2.   Learning situations will be created so the child will experience speech or signing as a means of interacting with others. The teacher should be playful, follow the child's preference and focus on his/her interaction. Gillberg and Peeters (1995:96) indicated that augmentative communication, the development of supportive communication for those who lack verbal self-expression, is the most important modus operandi in any educational programme. The form of communication should be adapted to the individual level.

3.   Increased use of video instrumentation (Twachtmar, 1995). Video modeling can be used to teach conversational speech to autistic children through self and peer-viewing. Videos, photographs, graphic representations, lists and checklists all help to prompt the child to the next stage. Planning any event can then become a daily activity.

4.   For those who have echolalia, echolalia could serve social, cognitive and communicative functions (Prizant and Rydell, 1984). The necessary evaluation will be made to see if it is a way of communication or if it is unproductive and on that basis some direct and indirect intervention may be taken (Rydell and Prizant, 1995). An example of indirect intervention is to model utterances that are conventional and functional. An example of direct intervention is to respond to and promote communicative intent. This implies that the teacher will respond to echoic utterances that are used for instrumental, cognitive and social purposes. If the child repeats the word bus, then the teacher will respond directly and say (bus) and show him/her a picture of a bus.

5.   Most autistic children demonstrate little expressive language, especially self-initiated approaches to gain linguistic knowledge of the environment. This is manifested by deficits in communication as a basic characteristic of the syndrome (DSM-IV, 1994), leading to a clear disability in the area of social competence.   Conceptually, the emphasis currently is to arrange the environment to increase children's opportunities to use language. The literature indicates the success rate for providing treatment for autistic children in their natural settings through peers (Goldstein et al, 1992) and teachers (Carr and Durand, 1985).

Such naturalistic-treatment techniques that focus on teaching functional language skills in a social context are called milieu teaching (L.K. Koegel, 1993). Such teaching is implemented by teaching language functions, such as requests for desired items.   Milieu teaching also emphasises using multiple, naturally occurring examples to teach language as well as to increase interaction between the teacher and the student.   The rationale behind such teaching is to increase the child's motivation to use the language by withholding desired objects until the child verbalizes his/her wish.   There are several naturally occurring incidents during the day when the teachers could follow the child's lead and encourage and sustain communication initiation.   The teacher could ask the child what s/he wants, clarify the communication attempt or helped the child to use alternative ways of indicating his/her message.

6.   One effective approach to encourage the child to communicate is to let the child be the one to determine what to talk about (Watson et al, 1989) and the means of expression. If the child is interested in initiating an interaction on toy cars through picture exchanges of cars, the teacher can start with this. He can then extend the interaction towards the learning objectives by using languages such as faster or slower, bigger or smaller, blue or red, etc.

Parents and teachers are usually concerned about the child's ability to speak. However, it is more important that the child learns to communicate by any means or form. The challenge to us is to determine what communication system is optional for the child and how to implement it effectively.

7.2.5 Cognitive Skills

The majority of autistic children will have severe general learning difficulties due to cognitive deficits. The nature of their cognitive impairment means that their cognitive skills do not follow the same development sequence as that of other children. Even though some of them have isolated abilities, such skills do not present pockets of normal cognitive development and are often themselves products of deficiency (AHTACH, 1985). Areas that will be addressed under this heading are specific difficulties in problem solving and in playing, lack of imitation skills and difficulties in directing attention to meaningful features of the environment.

In order to address such problems, the curriculum will implement the following steps:

1.   Teaching cognitive problem solving through the use of different approaches to the same or similar situations or settings. The aim is to equip the child with a repertoire of techniques for solving one task (AHTACH, 1985) and to provide the opportunity to practise and generalise the new skills. The task could be either behavioural or academic. An example of academic problem solving is how to draw lines, either straight or curved, top-down, bottom-up, from left to right and then from right to left.

2.   Develop the practical skills of playing through relying on the experience of handling materials during play, such as conversation and understanding the weight and size. For instance, reality-based pretend play, such as cooking, could involve mixing cooking materials of a certain weights to fill a pot of a certain size. Furthermore, children with autism commonly experience difficulties

in playing with peers, but play is an essential instrument for normalization (Wolfberg, 1995). This could be initialed by arranging natural opportunities for them to play and interact with experienced players.

3.   In order to improve their imitation skills, autistic children need to be guided through the necessary action rather than to be expected to imitate body movements for themselves (AHTACH, 1985). For example, if the child is expected to keep his/her hands inside the car during driving, s/he should be guided as to where to to put his/her hands while seated. Sometimes modeling or copying the action of the teacher is difficult and it may be of help to sit next to the child so s/he can copy the exact action and not have to reverse it as s/he would have to do if the teacher was sitting opposite. Having a small teacher/student ratio will help the teacher model many situations for the student who needs this help, e.g. during class, music sessions, P.E., etc.

4.   Current research suggests that autistic children experience difficulties in controlling and re-establishing their attention in a smooth and accurate way (Coursnesne, 1991). For example, when the teacher asks another student to play a drum, the child attends briefly by turning his/her head to the source of the sound but then ignores the sensory stimulus and looks back at the teacher. If the teacher's verbalisation is not effective to bring the child's attention back to the task, employing visual strategies including gestures, physical prompts and visual tools (Hodgdon, 1995) could be effective. The skill of directing attention could be learned to enable the child to shift attention between the teacher and material.

5.   Practical domestic skills, such as cooking, will be used as a means of allowing the child to influence his environment as well as understanding the consequences of his actions. In addition, cooking will help him in developing sequential skills, especially those time-related ones. Teaching independent living skills such as cooking through cookbooks with colour photos illustrating each step, has proved to be effective as indicated in a study by Sanders and Parr

(1989). Though families in Kuwait and Saudi Arabia have domestic cooks, the families of children with autism will be happy to have their child prepare light meals or snacks.

6. Needed skills could be taught by the chaining process where combining simple skills or behaviour will lead to the acquisition of more complex skills or behaviour (Gardener and Chapman, 1993). Chaining, which refers to two or more performances linked by common stimuli, could be forward or backward. Sequences of events could be represented by pictures and words and be related to the experience of the child. For example, cleaning and personal hygiene could be arranged in appropriate sequences involving time. Groden and Le Vasseur (1995) developed a scene for taking a bath for a 5 year old child. The scene contained four illustrated steps that are relevant to the child's experience of taking a bath.

The implementation of the above suggestions, along with others identified during implementation, will enable the autistic children to understand and interpret the demands of their environment.

7.2.6 Development of motor skills

This includes objectives of motor control, such as body awareness and body and perceptual control (AHTACH, 1985). The curriculum will implement the following steps to achieve better development of motor skills:

1. Emphasise similar skills needed for everyday life, such as social motor skills, standing, seating, getting into a car, etc. For example, if the use of money needs to be taught, it should be with real currency, not toy. Furthermore, since autistic children have a problem in generalising from one situation to another, they should practise using money in real-life situations, such as buying goods at the local shop. Simple role play can enhance the child's experience of how to cope with situations he may encounter within the community, e.g. in a coffee shop, etc.

2.   Through physical education, in addition to trying to give relaxation and a sense of well being, the programme will try also to develop self awareness and an acceptance of others. This will give the children the opportunity to introduce basic reactions to other people at the physical level.

3.   Emphasise the need for autistic children to direct their visual attention upon a task and focus on the desired element.

4.   At advanced stages, the programme may implement techniques to bring intrusive motor rituals within conscious control and to promote physical confidence in problem solving and decision making when the child's own body is concerned.

7.2.7 Disruptive Behaviour and Self Injury

Many autistic children may cause injury to themselves or to others around them. Teacher or parents should sort out the causes of such conditions or misunderstanding and try to avoid them. It is important to consider the possibility of an underlying physical disorder when such symptoms occur. For example, a middle-ear infection may produce a pain which the child cannot communicate other than by being self-abusive. As such it will be essential to consult a physician in dealing with self-destructive behaviour.

Within this area, the curriculum will include the following steps:

1. Individual attention and streamlining family life.

2. To focus on pivotal behaviour which is central to a wide area of functioning (Moes, 1995). For example, for those who lack motivation and responsiveness to multiple cues, the elimination of such pivotal behaviour will lead to a huge improvement in the learning process. For example, if the child is engaged in self-stimulating behaviour, such as hand flapping, it is important to eliminate this pivotal behaviour (hand flapping) to provide the opportunity to learn useful things.

3. In dealing with severe behaviour problems, we will focus on the environment within which the behaviour occurs. This will include assessing the stimulating factors, yielding a functional analysis of the behaviour. The focus will be on understanding what the child is attempting to communicate by exhibiting a particular behaviour. The focus will be on changes in the environment and on teaching the child appropriate techniques to communicate needs.

For behaviour management to be effective, the child must be: (a) working on functionally selected motivation, (b) taught through a suitable teaching approach, (c) supported by an effective reinforcement system, and (d) taught within an environment where s/he can have access to a functional communication system.

After identifying the major areas within the curriculum, it is appropriate to discuss the processes within which such steps could be implemented. Structured teaching, the subject of the next section, is a major approach. Moreover, structured teaching will not give the child a chance to be engaged in disruptive behaviour, especially if the environment is structured, allowing him to predict the next activity in the schedule and use the means of communication methods most suitable to his abilities. If the problem behaviour continues, the teacher, with the help of the parents, has to modify the plan.

7.3 Structured Teaching

Before describing the different aspects of structured teaching, we would like to emphasise that the programme will be a day programme with six instructional hours per day, five days a week for 180 days and that the age range will be 5-15 years. The decision to extend the school year beyond 180 days in order to avoid any significant regression in the skills of the children will depend on the availability of resources, both human and material.

Follow-up studies have continuously demonstrated that structured special educational programmes result in the most positive outcomes for youngsters with autism (Schopler and Mesibov, 1984).

Autistic children need a structure to enhance their development (Schopler, 1989). Structured teaching has two major benefits for any autistic child:

- it provides him/her with processes to organise himself;
- it assists him/her to respond more appropriately to his/her environment.

For structured teaching to be successful, a variety of methods needs to be implemented individually or jointly, including:

(A) physical organization
(B) schedules
(C) individual work systems
(D) visual structure
(E) routines
(E) instructional materials

The following paragraphs will explain in detail the operationalisation of the above five types of structures.

A. Physical Organization

To let the child understand the environment and the relationships between events better, we need to use consistent, visually clear areas and boundaries for specific activities. The existence of a visually specific area for a major activity enables the autistic child to understand the activity and what is needed from him. For example, for music sessions, a clear physical setting for the class would include the instruments, signs, etc. Given the difficulty autistic children have in differentiating between dissimilar events and seeing how distinct activities relate to one another, a clearly organised classroom highlights the specific activities and reinforces the important concepts. Such structuring can help the autistic child by focusing his/her attention on the most relevant aspects

of the tasks. By blocking out any outside distraction as far as is possible, we make it easier for the autistic child to focus on his/her activities.

The teacher can use dividers, window shades and minimal decoration on the walls near individual work areas to minimize distraction of the child's attention. Specific activity areas in the classroom must be selected and clearly known to the children. To make visually clear boundaries, teachers can use rugs, book shelves, partitions, tapes on the floor and the arrangement of the furniture. Each individual work area should meet the children's needs and the anticipated tasks.

B. Schedules

A schedule of activities is as important a part of classroom structure as is the room's physical structure. Both help the student to differentiate between discrete events and their relationship to one another. They also help the child understand the activities he will be undertaking during the day in sequence, and what is coming next. It is another means of teacher/child communication, explaining exactly everything about the activities and events. The teacher uses the visually clear schedules to try to overcome the weaknesses or deficits the autistic children have, such as;

(1) problems with sequential memory and the organization of time;

(2) difficulties in understanding receptive language;

(3) attention problems.

When the child knows how to predict both daily and weekly events, his anxiety and frustration about knowing what to expect are diminished. For example, it helps him avoid of not knowing when a preferred activity will be again available or when an unpreferred one will finish. The teacher can use both the general classroom schedule and the individual child's schedule. The first one informs the child of all activities during the days, as indicated in table 7.1.

Table 7.1

8.00	Student arrival - putting belongings away and preparing for morning circle
8.45	Morning circle
9.00	Work session 1
9.15	Morning assembly in Gym
9.45	Work session 2
10.15	Snack time
10.30	Self-help & domestic skills
11.00	Physical education session
11.30	Work session 3
12.00	Music session
12.30	Work session 4
1.00	Relaxing session
1.15	Dismissal

The individual student schedules (ISS) allow the child with autism to predict and understand what to do during each activity listed on the general schedule. Such understanding could be reached in a variety of ways, which can range from pictures, words, numbers, objects, colours or anything meaningful to the child. Such an ISS should inform the child about the sequence to follow and also enable him to understand how many activities need to be done by him and what his reinforcement is after he has finished. By using these schedules, the student begins to comprehend better and follow teacher and staff directions. Their use also helps the child in developing independent functioning skills and improves his ability to predict and control the environment.

C. Individual work systems

As indicated above, the schedule tells each child the daily sequence of events, while the work system informs the student what he should do while in

his independent work area. It helps the student to work independently even without supervision after training. It is presented in a way the student can understand and such presentations will depend on his development level. So a child with higher functions can use a written work schedule and written instructions, while a lower-functioning child might use pictures, symbols, numbers or objects as a work system. The concept of finishing is concrete and clear through using the work system which tells the child how much work he has to complete and when it is finished.

D. Visual structure

Autistic children need a visual structure because of the difficulties they have in communication. In addition, they can work better if their activities are presented to them visually. Factors to consider here include visual clarity, visual organization and visual instructions.

The materials and tasks presented to the student should have visual clarity in order to enable him to understand and learn easily. Visual clarity can be improved by highlighting or by colour coding, giving the child individual materials, using name cards or labelling parts of the classroom with words. For example, one important feature of a classroom is that different areas of the room will be clearly defined, e.g. a leisure or play area could be carpeted.

Visual organization of materials can facilitate learning for autistic individuals through classroom management aids (Hodgdon, 1995). Because of their sensory-input deficits, their inability to control and simplify or organize what is perceived through their senses, visual organization of the materials can help in the processing of information more efficiently. For example, the task of cooking could be communicated better to the child by a collection of pictures arranged in a sequence giving specific directions, such as a picture of an egg to accompany the verbal instructions to take one from the refrigerator.

The utilization of visual instructions can help the child understand what is needed from him. Using jigs as a visual instruction can clarify the task requirements, sequences and relevant concepts and can help plan future work. Jigs are visual sequences of a skill/activity which help the children organize and make sense of their lives using their eyes rather than their ears. Teaching autistic individuals how to follow directions improves their flexibility in responding to the changes that can happen in any setting or environment.

E.   Routines: The maintenance of routines is a form of structural teaching. Training a child in structured productive routine, gives him a systematic way of completing desired assignments. The child is taught the routines, for example first work, then play, or vice versa depending on what most motivates the child. Routines are helpful throughout the day, in the classroom, work areas and even at home. The left to right or top to bottom sequence is another routine which gives the student a systematic approach to tasks, applicable to many activities they will use again whether in school, at work or in the home setting.

Using the strategies of structured teaching, the teacher can help autistic children. Research has shown positive results and progress over the past 20 years in the TEACCH Program (e.g. Schopler, Mesibov & Backer, 1982) where instructional techniques form one of core components of the programme. The use of appropriate instructional techniques such as prompting, chaining, shaping, modeling and graduate guidance, may vary according to whether the teacher aims at teaching the acquisition of new skills, the generalization of acquired skills or the maintenance of existing skills. Chaining teaches the child how to link together a series of tasks, each learned separately but needing to be performed in sequence. For example, the child learns to pull up her pants from her thighs, and then from her ankles. The teacher should provide directions for tasks, offering prompts and delivering reinforcements to organize and structure the classroom experiences of their students.

F.   Instructional Materials: Planning the teaching strategy also requires

appropriate teaching materials for the instructor. The programme will use Montessori equipment since this provides the children with the opportunity to use touch and movement for learning (Wing, 1986). In addition, the programme will acquire the teaching materials that other centres utilize.

7.4 Family Support

Home-based functions have a great impact on a child's performance at school and on his/her life generally. In any programme, the services provided to families should be sensitive to their diverse needs. For example, most families suffer from the child's behavioural abnormalities and the lack of an early and definite adequate diagnosis. As such, families are striving for practical help and psychological support rather than classical psychotherapeutic assistance (Gillberg, 1989a), especially in Kuwait and Saudi Arabia where the visits of the psychotherapist are not so common as in western countries. (This may be due to strong family bonds and the dominance of religious teaching).

This component of the programme will assess both whether a parent would be able to implement the expected activities in their natural (home) setting and what impact it will have on achieving the desired objectives. Studies have demonstrated that increased maintenance of treatment gain is achieved when parents are incorporated as an integral component of the treatment plan (Kellegrew, 1995; Pell and Cohen, 1995). In addition, as suggested by Dunst et al (1991:124): 'Interventions that are family centred are more likely to have broad-based positive influence on a number of aspects of child, parents and family functioning'.

In order to maximize the family's intervention and contribution to the child's development, the programme will have three main goals:

A. To provide parents and members of the family with techniques which will allow them to function more effectively as parents and teachers of the child.

B.   To provide adequate support for the family in meeting the challenges of having an autistic child and to develop a working relationship with them.

C.   To furnish parents with necessary information in advancing their cause to national level as well as bringing more awareness to the issue.

To achieve the above objectives and to encourage partnerships with parents and families, the following steps could be implemented:

1.   Pre-entry as well as post-entry meetings with parents to develop positive attitudes about the programme and to involve the family in the different developmental areas of the child. This will have a positive psychological impact because parents, who have until now lived in uncertainty about the prospects for their child, will have some available information on how to manage the future. Such meetings should use partnership between the programme and the family as the primary mechanism for parent involvement with the education of the child. As suggested by Shriver et al (1993), this partnership could be later expanded to include participation in the classroom itself (being a classroom aide) or help in arranging field trips.

2.   The development of Individualized Education Programmes (IEPs). Parents who were involved in the preparation of IEPs were more satisfied (Shriver and Kramer, 1993). Though not mandated by law in either Kuwait or Saudi Arabia in time, parents will be involved in the welfare of their children by participating in individualization education conferences and the IEP document itself. The content of the IEP will include, among other things: present level of performance, annual goals, short-term objectives, specific education services, yearly assessment procedures and specific materials needed in the instructional process.

Within this programme, parents will be invited to IEP meetings where an already developed draft of an IEP will be discussed with them. They will

have the chance to amend, delete or request any change in the objectives of the IEP.

3. Parent training workshops. This may include introductory workshops that could be held one month after the programme has begun. Such workshops will introduce the family to basic behaviour-management techniques. In addition, as suggested by Hawkins and Singer (1989), parents could be taught specific stress-management approaches, such as self-monitoring, relaxation techniques and a coping self-statement.

4. Individual and family counselling. This includes counselling by social workers, psychologists or other professionals. Such counselling will help the family to address the unique problems of their children and satisfy their need for professional advice. The programme should also focus on building and strengthening informal support such as the counselling networks as suggested by Dunst et al (1991).

    Though important, the home visits suggested by Groden and Dominigue (1991) will not be implemented except in rare cases, due to staff constraints. As indicated by Shriver and Kramer (1993), parents in the USA are more satisfied with the amount of parent-teacher contact when they actually visit the school, as compared with calling by telephone or using notebook. The programme will encourage parents to visit the school more frequently than is currently the norm in Kuwait.

5. Respite services and sibling training course. The UCPC (1981) (United Community Planning Corporation) defined Respite Care as 'temporary care of developmentally disabled persons on either a planned or emergency basis. The purpose of this care is to help in maintaining or improving an individual's ability to live at home or in a community residence'. Though important, respite services will not be implemented within this programme at this stage due to the nature of the society and

lack of fund. Similarly, the creation of baby-sitter services will not take place at first.

The area of sibling support has received minimum attention (Gillberg, 1989) but one approach which has proved to be successful is participation in a sibling training programme (Oke, 1993) where siblings will learn how to implement procedures to encourage the use of expressive language by their autistic brother or sister. Sibling training courses, like those for parents, aim at providing necessary awareness and behaviour techniques to deal with an autistic brother or sister. The course will also aim at involving them directly in the educational programme. Siblings and friends can help autistic children during summer vacations through interesting joint programmes.

6. Parent support group. As was indicated in Chapter 6, the role of the parent support group is central to the effectiveness of the programme. The group can link the needs of both special educators and parents of autistic children (Wood, 1995) as well as establishing a means of communication for both of them. The programme will establish such a group among all the concerned in the programme. Furthermore, such activities could be done for families across disabilities rather than for autism only.

Its aim will be to fulfil parents' needs for emotional support, knowledge, information and guidance. The group will meet every other month to discuss issues of common interest, especially how to enhance the public services provided by the government. Such meetings can raise morale and motivation when the progress of children of other members is noticed. Two gatherings or picnics for the families will be held every year. However, parents will decide how many times they want to meet and for how long.

A typical parent-support programme may include sensitive listening, mutual problem solving, information exchanging, survival tip giving,

advocacy training and socializing.

Such a group, if successful, could be the basis for a recognised national parent society for autistic children. The establishment of parent societies in Kuwait could follow the same trend noticed in other western countries. Due to the limited number of autistic children, parents should form a society that represents a wide range of disabilities. The society will support all parents of handicapped children to overcome the similar problems they face. However, sub-groups could be formed which address problems peculiar to certain conditions such as autism. Autism sub-groups could be linked to one of the well-established societies in England or the USA in order to benefit from their resources and attend their activities. Informing the general public and influential individuals is an important function of the parent societies.

7.   Dissemination of information. The availability and circulation of pamphlets and institutional materials on important topics related to autism is an essential activity for increasing support and receptiveness to autism. Many parents desire a wider understanding of the challenges and problems they face. For example, the programme could utilise the effective manuals that help parents to cope with living with an autistic child such as: Lovaas (1981), The ME Book, teaching developmentally disabled children, Wings (1985), Autistic child: a guide for parents and professionals and Powers (1989) Autistic children: A Parent's Guide. Such manuals could be disseminated for those who know English or translated into Arabic for those who do not.

Such dissemination could be done by the establishment of a resource list which would provide information about publications on specialized professionals in different areas. The list could be distributed to all members of the social support group as well as to interested individuals.

8.   Social support. To cope with stress, the families of autistic children can

draw upon an informal social-support network of immediate and extended family, friends, neighbours and other parents of handicapped children. A system could be established to connect and enhance such an informal social-support system, with a telephone number, preferably available at all times, for potential programme parents. An appropriate staff member will be appointed to coordinate incoming referrals and establish suitable partnerships.

To maintain continuity of social interaction, parents will be required to be involved in activities concerning their child's behaviour and acts of daily living. Such activities could later be formalised into a base for a home programme. It will contain the following areas:

1. To assist in understanding and coping with the child's behaviour, parents are encouraged to learn techniques for behaviour management by learning to identify both problem and desired alternative behaviour. By using techniques that promote behavioural change, parents can do much to help their children.

2. Empowerment of the family to control their environment with minimum disturbance to their daily lives, while fostering their self sufficiency and independence of families.

3. Promoting effective communication techniques and providing necessary information and knowledge about autism.

4. Acquiring basic living skills.

The programme will avoid, in the beginning, loading parents with many assignments to do with their child. Gradual involvement with increased potential responsibilities will be implemented to avoid increasing the strain on families who are already under great stress. To ensure the maintenance of their involvement with the child, necessary back-up support will be provided.

To enhance such potential contributions, under the programme a story or simple craft exercise will be sent to the parents who are expected to read the story or do the craft exercise with the child. The parents will be requested to record the time they took to do it and the person who has helped with which assignment on which day. The purpose is to encourage parents to contribute more to their child's development and boost their confidence about their abilities to enhance their child's abilities. The parents will be encouraged to register in the active committees of parent groups within the programme which aim to support their needs. For example, parents could register in the awareness committee which may set up an awareness programme through a series of lectures or workshops.

7.5 Training and staff development

Since Kuwait and Saudi Arabia lack adequate expert and qualified teachers to work in this programme, it is essential to include training and staff development as one of the first components of the programme. Training will help teachers establish or regain their professional integrity and help them to act as catalysts for social change through their daily work. In implementing the programme, it is important to attract and maintain qualified and educated staff who have the appropriate attitudes as well as the desire to develop and work with these children. Since there are no special-education teacher-training programmes within either country, it is essential to have a concrete and specific training programme for staff development. This is needed because training is one of the ways to change the attitudes of the teachers. The effectiveness of this programme will depend on how far the teachers are informed, tolerant and empathetic towards the child. The programme will train them in general areas, such as team work and creative exercises to enable them to be open-minded and inventive when the challenges arise. The training programme is expected to provide everyone within the programme with an environment where everyone works as members of one team to find solutions while accepting the situation realistically and solving it in a practical manner. The programme will involve an intensive multiple disciplinary training aimed at training teachers as generalists

who are expected to understand the entire range of problems associated with the autistic syndrome and effective approaches towards treating it.

The development plan is a statement of priorities to be addressed within a specific period of time (Rogers and Badham, 1992:1). As indicated, changes in teachers' attitudes and in the supportive environment are the most important ingredients in this programme, and in order to achieve such positive changes the training and staff development programme will consist of five components:

(i) In-service training: Henderson and Perry (1981) indicated that in-service training is the most effective mechanism for change. Such training has the potential to target all the relevant issues and can be tailored for the specific needs of the programme. This will include a 3-5 days orientation programme which will focus on the following areas -

(a)   background and characteristics of autism, causes and prognosis;

(b)   programme policy and rules, nature of clients and services;

(c)   training to acquire skills such as independence, vocational and leisure skills,

(d)   communication and social intervention, bizarre/challenging behaviour and teaching implications;

(e)   treatment philosophy and methodology of as many educational approaches as possible, such as TEACCH, Lovaas, Daily Life Therapy and Sensory integration;

(f)   training in the principles of an implemented international programme for autistic children, such as those in Belgium. Such training will allow the teachers to be exposed to various programmes with many cultural differences;

(g)   training programme on behaviour-modification techniques, since this is a crucial component in dealing with autistic children.

Such in-service training is expected to serve the dual purposes of developing positive relationships and the means of disseminating factual information, and to function as a problem-solving and problem-posing

environment.

(ii) <u>Staff exchange programme</u>: Under this programme, staff working in the programme will have familiarization visits as well as residential periods in selective centres for autism in the US and UK.

(iii) <u>External training</u>: The individual training needs of each teacher will be evaluated. Those who are able to grasp more advanced ideas will be enrolled in centres of excellence where they could, at a later stage, pass on such knowledge and experience to their colleagues in the programme. These areas will include such important techniques as music therapy, art therapy, relaxation therapy and other methods that will complement the educational part of the programme.

(iv) <u>Early staff orientation</u>: such orientation will provide good instruction and understanding quickly to newcomers. It may include an overview of autism, behaviour-therapy principles, programme plans and curriculum, and administrative concerns. Such orientation training could be implemented in the first month of the programme.

(v) <u>Professional self development</u>: at a later stage, and in order to maintain continuing professional development, the programme may encourage teachers to be involved in professional self-development activities. This may include self-contained multi-media packages, distance learning and video courses (Tilstone and Upton, 1993).

Because of limited financial resources and a shortage of staff in the early stages of the programme, the training budget will be 3-5% of the personnel budget and confined mainly to in-house and external short-duration courses. The programme will later emphasise self-development and individual learning programmes, study leaves, long-duration courses, internship and attachment.

It is assumed that the above mentioned components will enable the programme to realise the following objectives:

(i) Provide comprehensive modular training in all phases of the programme. The purpose is to increase the knowledge and update the skills of the teachers and staff so that they have a good understanding of contemporary issues around autism, and to enhance their capacity and understanding for better interaction with the child.

(ii) Increase the number of training opportunities for the staff to enable them to develop professionally and provide them with individual training programmes.

(iii) Design and conduct a special intensive classroom training for teachers, especially new recruits, in order to prepare them for their new assignments and responsibilities in the programme.

The aim of the training programme for teachers is to develop a genuine attitude of caring, strong motivation, appropriate dedication and a sensitivity towards the child's needs. To be functional, the programme will emphasise in the future training within real-life settings (Johnson and Koegel, 1982).

7.6 Recreational and Vocational Services

As indicated in chapters 5 and 6, the importance of recreational services was emphasised by parents and the panel of experts as an essential ingredient of this programme. The existence of such services was seen as a criterion for successful development in mentally retarded individuals in a large Southern California School district (Stanfield, 1973). This is because there are few opportunities for autistic children to have recreational activities in the public arena, either in Kuwait or Saudi Arabia, due to social awareness and lack of adequate facilities.

Such services provide special enjoyment and behaviour reinforcement, reduce inappropriate social behaviour, teach social and communication skills, promote physical health and prepare the individuals for employment (Gardner and Chapman, 1993). The programme for such activities will consist of three components:

(i)   after-school or afternoon activities, including those that can done at home or in the community;

(ii)   vocational and social activities; and

(iii)   summer-school recreational activities.

Each component could be sub-divided into three categories:

(a)   activities that could be done alone, such as computer games, swimming in the pool or travel games;

(b)   participatory activities that could be done with others, such as playing cards or duo-travel games that need two partners;

(c)   observational activities, such as watching a soccer game or TV.

It is essential that the child be exposed to recreational activities and leisure-time facilities and taught how to use these. Autistic children have an abundance of leisure time but have not developed the necessary qualities to utilize this time constructively. One of the main characteristics of autism is the affected individual's limited and restricted interests and activities, and his/her preoccupation with stereotyped and restricted patterns of interests other than usual recreational activities for other peers. Also, the amount of time an autistic child spends on any educational programme is less than that spent by other children in regular education and this also true for our proposed programme. Furthermore, most families of autistic children lack knowledge about the availability of such leisure facilities within the community. As a result, the programme will aim at extending awareness about existing recreational facilities as well as establishing new ones. It will help in overcoming the many obstacles that prevent the child or his family from utilizing such facilities. For example,

in many instances the family face the challenge of providing transportation to and from the recreation activity centres. The programme will liaise with other organisations to provide such necessary transportation.

A well-designed programme will thus be more effective if adequate facilities are available, such as a swimming pool, playground, complete indoor hall and educational play equipment. The programme will be implemented with a promise that such facilities will become available.

Stanfield (1973), while surveying a trainable mentally retarded population in Southern California, found that many participants were not taking part in any programme at all, but remained at home after public-school graduation. With the absence of a legal mandate in either country, compared with the USA, the chance of an autistic child becoming employed is nil. This raises the need to include basic vocational skills and to establish with others adequate work opportunities for the handicapped.

The reason for including vocational training early in the programme, while its outcome will be seen only some years later, is that the training should begin as soon as an individual is developmentally ready because learning will take so long. As such, the programme will focus, in the early years of its implementation, on the vocational preparation of the children. As suggested by Levy (1983), four basic areas have to be addressed to fulfil the individual vocational potential:

(i)   The development of work concepts and values by having work responsibilities;

(ii)   The acquisition of general-task skills, such as the manipulative skills required to fit things together;

(iii) The choice of tasks over a period of time with reasonable and acceptable levels of productivity;

(iv)   The development of appropriate social and work responsibilities, such as using work breaks appropriately. This is the area where autistic children show great deficiencies.

7.7 Support Services

As indicated in Chapter 6, support services involve a cluster of facilities. In accordance with the needs of the programme, a network of specialists will be developed. In addition, a core specialized team will be formed including a doctor, psychologist, social worker and speech therapist. The aim of such a team is to plan the future of the child in collaboration with the family as well as providing adequate information for the parents. In order to achieve the desired objective(s), the following steps may be undertaken:

1. Undertake necessary coordination with one or two special units for diagnosis and evaluation.

2. Regular support of occupational therapy will be required, due to the weakness in motor skills.

3. An input of regular speech therapy, needed to overcome communication and language difficulties.

4. Access to professional advice needed in assessing and treating severe behavioural problems, such as self-injury.

As the family become more involved in the programme, the services of a full-time psychologist will be needed. In addition to the traditional placement role, the psychologist will also be a consultant providing services to the family and trying to increase opportunities for parental involvement in the children's education (Shriver et al, 1993). Furthermore, the psychologist can be responsible for interacting closely with the parents and for maintaining contacts.

The health services is one area of great importance to the programme. Medical evaluation and management are an integral part of any programme for

autistic children. The contribution of the health service, mainly that of the physician, is to minimise the effects of the handicap and support the efforts of others towards achieving such objectives. The programme's health services will focus on the well-being of the autistic children as well as monitoring their health conditions while they attend the programme.

The medical needs of autistic individuals could consist of the following components:

1. Medical assessment
2. Preventive medical care
3. Preventive dental care

Medical Assessment

Due to the biological causes of autism and its impact on the cognitive and other functions of the child, it is essential to undertake the following medical tests (Gillberg and Peeters, 1995):

1. A neuropsychological test to exclude similar disorders that emerge before age three, such as Rett's syndrome;

2. A test of vision and hearing, usually including a test of auditory brain-stem responses/ABR (if available). This test will indicate the damage or dysfunction of the brain stem. The importance of a vision and hearing test is due to the fact that most autistic children have impaired communication. Sign language and other alternative non-verbal modes of communication, such as using a communication board, will be an important tool for communication which requires adequate vision.

3. A chromosomal culture and a DNA test to exclude/diagnose the Fragile-X Syndrome, Tuberous sclerosis and other metabolic disorders.

4. An EEG and neuroimaging examination, such as CAT-Scan or MRI-Scan (Magnetic Resonance Imaging). The findings of these tests, in combination with SPECT (Single Photo Emission Computer Tomography), will indicate abnormalities in the frontal lobes and the temporal lobes, which are responsible for triggering aggressive behaviour.

5. Blood and urine tests to exclude certain metabolic disorders.

6. General physical check-up including skin signs of tuberculosis or neurofibromatosis.

The value of these tests (if available) is in identifying or excluding those conditions that cause such medical disorders. However, depending on the circumstances and symptoms of each individual, other neurological assessments may be required (Gillberg and Coleman, 1992).

As indicated in Chapter 2, the genetic centre in Kuwait could provide many of the above tests, such as EEG, DNA and MRI.

Preventive Dental Care

Many autistic children need regular dental checking more frequently than normal children, resulting from their often poor dental hygiene and other disorders (Pueschel, 1991). The programme should aim at arranging special services in collaboration with MPH for dental care in one of the country's dental centres. Staff familiar with the children's behaviour may be involved in providing such services.

Preventive Medical Care

Preventive medical care will include the usual medical practices of immunization, blood-pressure and sugar-level checks, and general check-ups of the body, vision and hearing.

The programme will try to employ a residential nurse due to the relatively high occurrence of epilepsy among autistic children. In addition, the programme will establish a systematic interaction with the Ministry of Health to benefit from the existing medical facilities as well as establishing a referral system where collaboration will be maintained with the specialists and leading practitioners in the area of health services for autistic children. Such arrangements will provide the necessary health services to the programme as

well as leading to a reduction in the cost involved. Such arrangements may include routine tests, e.g. dental evaluation, blood tests, EEG, etc. and specialized tests, such as CAT Scan. In the case of phobias, desensitization procedures may be used. Since autistic children are severely handicapped and lack accurate feeling of danger, they may get involved in dangerous situations which will lead to emergencies. In consequence, the programme will provide first-aid training for teachers and other staff in order to enable them handle any self-injury or emergency situation that may arise.

As the implementation of the programme progresses, access to professional advice will be established. This professional interaction will be in the area of assessment and treatment of behavioural-management problems, such as excessive injury and extreme tantrums. It is intended that such collaboration will lead to the establishment of a diagnostic unit for autism which will be responsible for providing an accurate diagnosis and medical evaluation and follow-up as well as providing information to parents.

7.8 Awareness and Information

As indicated in chapters 5 and 6, the aim of such a basic component is to increase public awareness about autism and to influence public perceptions. Within the context of Saudi Arabia and Kuwait, this could be accomplished by implementing the following steps:

(i)   Mass-media activities, such as radio-talk programmes, newspaper and magazine articles, circulation of pamphlets and books, word of mouth and by inviting representatives of parents support groups and the National Autism Societies from nearby countries to pass information to parents.

(ii)   Numerous presentations and meetings at national-level, including charity banquets and fund-raising activities, such as sales and parties, educational seminars, etc. Greeting cards could be used for promotion and for fund-raising activities and greeting cards featuring art work done by autistic children could be distributed. In addition to its function as an

instrument for awareness, this gives the children's work an objective purpose.

(iii) Resource lists, including cooperative and understanding doctors, leisure facilities that are suitable for autistic children;

(iv) Community participation, which aims at socially integrating the children into the community through visits to public places.

The parent society and groups of friends for autistic children (if organised) could be effective tools in enhancing public awareness about autism. Though they will engage in humble activities, with persistence they will have an accumulative impact. If an effective organisation of parents and professionals based on efficient communication is established, it will become a significant political force to lobby for autistic children's rights

In other countries, such as the USA, a factor contributing to the lack of public awareness is that the families' functions are isolated from the community, their neighbours and their own kin (Zigler, 1984). On the contrary, in Kuwait as well as Saudi Arabia, family ties are strong, providing potential opportunities for knowledge, interaction and promotion of interest in and compassion for others.

In addition to mass dissemination of information, the programme should focus on the leverage points in government (Zigler, 1984). Policy makers are responsive to needs when proper information is available to them. Most of them have limited understanding of autism, so any effort to acquaint the legislators with relevant information will help to affect appropriate policy or legislation. In dealing with the policy makers, advocacy groups need to know what they want to achieve.

7.9 Resistance to Implementation and Institutional Arrangements

During the implementation of any programme, resistance is to expected.

Defining expected obstacles and areas of resistance is, therefore, an important factor in formulating any implementation strategy. The expected negative consequences should be addressed and an incentive system to ensure effective implementation should be developed. The forms of resistance may be direct or indirect. For example, many teachers have a general fear or ignorance about autism itself. It is essential, therefore, to understand the forms, origin, and areas of resistance and to overcome them within the implementation plan.

One area of resistance is the fear of many teachers and staff members of their inability to implement a programme for autistic children. Because they lack the necessary skills, they fear that the implementation of such a comprehensive programme may show their skill deficit and consequently fear negative evaluations which may affect their career.

As Groden et al (1991:223) suggest, any programme may break down during the implementation phase if it is not properly communicated to or by the direct service provider. In addition, decision making may be inadequate due to lack of record keeping during the programme's implementation. As such an essential vital component of any staff development plan is to communicate clearly to the teachers and other staff the objectives, processes and the challenges that face the programme.

An expected area to be considered is staff morale. As indicated in Chapter 4, the perception of special-education teachers' status is low compared to a teacher at an ordinary school. Nevertheless the programme could boost staff morale if the following factors were considered:

- positive perception of workload compared with that of other teachers;
- adequate provision of basic facilities;
- wider opportunities for learning and development.

In order to reduce any resistance to the programme, it is suggested that all concerned, both government and non-government entities, may also be

involved in policy formulation and monitoring of the programme. It is also suggested that an expert steering committee or advisory committee may be established which will be responsible for directing the annual educational plan of the programme as well all its other activities. This committee will consist of the Head of Special Education Council of the MOE, the Head of the Medical Development Care Department in the Ministry of Public Health, two professors from the College of Education of Kuwait University and two volunteers who are actively involved with NGOs responsible for handicaps. Hopefully, such a committee will promote cooperation through sharing resources, expertise and advocacy responsibility. It is hoped that the committee will help those concerned within the programme in the discharge of their duties through general guidance and policy formulation.

As indicated in Chapter 6, it will be difficult to implement full integration or mainstreaming for autistic children in the initial stage of the programme. Instead, the programme will encourage greater collaboration and the installation of institutional arrangements with supportive ordinary schools. Through the use of joint resources and settings, it is hoped that a natural and smooth integration will take place, which will protect all the rights and needs of the autistic child.

Another area of concern in the area of institutional arrangements is the relationship with the Kuwait Awkaf Public Foundation (KAPF) and the Ministry of Education (MOE). It is important to maintain a close and deep relationship with both bodies since both can make a substantial contribution to the programme. The MOE provides and pays for all teachers. This puts a burden on the programme to maintain close institutional arrangements with the MOE from the selection of the teachers through the assessment and appraising of their performance. Furthermore, similar professional relationships should be maintained with the Department of Special Education within the MOE in order to have a pool of resources that could be tapped when needed. Similar arrangements could also be made to share development and training activities with both MOE and KAPF. Since KAPF is the major supporter of the

programme, an adequate institutional arrangement could be made which will provide the independence and flexibility needed for the implementation of the programme while maintaining a working relationship with KAPF.

7.10 Conclusion

To be effective, any programme should focus not only on the child but also on his family, and should involve both behavioural and educational approaches. The programme components depend on three pillars: the education programme, family and staff training, and the support services needed for the effectiveness of the programme. The education programme will focus on those areas which it is felt are critical from the parents' perspective. They include impaired social relationships and self-image, outside stimuli and motiviation, adapted behaviour and language and communication, cognitive skills, development of motor skills, and the modification of inappropriate behaviour.

Such components will be implemented through structured teaching, including using physical organization, schedules, individual work systems, visual structures, routines and instructional materials. The programme will, through its implementation period, emphasise the importance of family support as one of the essential areas, as well as a comprehensive training- and staff-development programme. An effective training- and staff-development programme will provide the teachers and other staff with a broad and complete repertoire of competencies necessary for the programme's effectiveness.

The array of services needed to fulfil the needs of the child have been indicated and their implementation has been discussed. These include recreational and vocational services, support services, health and medical services. Increasing the awareness and dissemination of information is an important factor in increasing society's receptivity to autism as well as its provision of services.

It is expected that there will be some resistance to the programme's implementation, so it is necessary to devise a plan which will identify areas of such resistance and the ways and means to overcome them. Special relationships will be established with those where resistance is expected, such as the MOE and other schools admitting autistic children into their population.

After formulating the focus of the programme as well as its seven components and its implementation, it is time to assess the outcome of such an evaluation, and this is the subject of the next chapter.

CHAPTER EIGHT: PROGRAMME EVALUATION

Evaluation is a vital component for any programme to be competitive and effective. Evaluation will ensure efficiency during the implementation stages as well as the effectiveness of the outcome. When evaluation becomes an integral part of any educational programme, knowledge will be greater and wisdom accumulated. Evaluation is critical within the context of our programme to enhance its applicability to other environments, since it is envisaged that the programme should have the flexibility to be adapted to the diverse conditions of other countries.

It is natural that over time, all aspects of a programme will change, which is why evaluation is both inevitable and desirable if the programme is to be effective and sustained. Since the natural tendency of human beings is to resist change, it is essential to include the evaluation process as one of major components of the programme. This will identify areas of such resistance and suggest ways and means to overcome them.

This chapter starts with an introduction about the evaluation process, especially from an educational perspective. There follows a description of the programme's evaluation, and its components, such as child progress, teachers' and parents' satisfaction and the curriculum, will be presented. The evaluation data, including expert judgements and personal interviews, will be analysed and described. Major strengths and weaknesses will be identified and documented. Lastly, the limitations of the evaluation, and our conclusions will be presented.

8.1 INTRODUCTION

Rogers and Badham (1992:3) indicate that 'evaluation is the process of systematically collecting and analysing information in order to form value judgements based on firm evidence'. Chinapah and Miron (1990:26) see evaluation in general as the process of analysis and control designed to

determine the relevance, effectiveness, significance and impact of specific activities and the degree of efficiency with which they are carried out. So evaluation is a process in which data and information are collected to determine both the effectiveness of achieving the desired outcomes and the efficiency in implementing the programme.

In the literature, three kinds of evaluation emerge: formative, summative and holistic (Hastings et al, 1971; Chinapah and Miron, 1990). A formative, or process, evaluation is one which focuses on the process side of the programme and estimates the way in which a programme is implemented mainly in relation to the guidelines and the design parameters (Stake, 1976). This means that the evaluator should be involved while the programme is in operation and not conduct a post-programme assessment. A summative, or impact, evaluation usually focuses on measuring the extent to which a programme produces the desired outcomes or change (Chinapah and Miron, 1990). Within this context, the evaluation is concerned with the outcomes or impact of the programme, but not the process of implementation. A holistic evaluation combines both formative and summative approaches, enabling the evaluation to benefit from the advantages of both. It emphasises the consideration of the programme and its objectives in their unique and peculiar setting while at the same time understanding the interdependence and interrelationships of all factors during the process of implementation. Within the context of evaluating our programme, a holistic approach will be followed. Nevertheless, due to budgetary constraints as well as limited manpower resources, it will not be always easy to implement such an approach.

Though the process of evaluation is similar among disciplines, some differences do exist. For example, the process of evaluating an educational programme is different from that of evaluating the productivity of a factory. As such, many authors have tried to define educational evaluation (Hasting et al, 1971; DeRoche, 1981). One of the well-known definitions is that of Tyler, who views evaluation as, 'the process of determining to what extent the educational

objectives are actually being realized' (Tyler, 1950:69 as in Brinkerhoff, et al, 1983:XV). Chinapah and Fugerlined (1986) define educational evaluation as an exercise in assessing the success or failure of the planned objectives of a programme after it has been implemented but not before or during implementation. In the process of educational evaluation, the emphasis is on the realization of planned educational objectives, but the evaluation should also search out and register the unexpected or unplanned educational outcomes.

Evaluation is often set in the context of monitoring. This is a process undertaken during the implementation stage to provide feedback for the designer to make the necessary changes that will improve the programme's effectiveness during its implementation. One relevant difference between them is that evaluation takes the process of monitoring one stage further, analysing the information and passing value judgements (Rogers and Badham, 1992).

Evaluation is mainly concerned with questions such as: What is to be evaluated (objectives and contents)? What is the purpose of the evaluation (e.g. annual review)? How (methodology of data collection and analysis)? What should count as evidence of success (performance indicators)? When (timing and period)? Who is evaluating (designer/outside evaluator)? For whom (who benefits)? However, the purpose of evaluation within the context of this research is to improve and develop further the programme to serve better children with autism by utilising holistic evaluation throughout one academic year (1996-97).

In the literature, many evaluation methods and techniques are utilized (Chinapah and Miron, 1990). In this research, four methods were used which complement each other as well as providing better information and knowledge collectively than utilizing a single method. The first method of evaluation was the personal interview with those concerned with the programme, such as parents and teachers. Another method used was expert judgement, where a group of experts in autism was asked to evaluate the programme within specific

parameters and conditions. Information about programme activities and resources are collected and then given to many experts who draw conclusions, make recommendations, etc. (Brinkerhoff et al, 1983:42). Due to practical considerations, including the difficulty in getting all the experts together and to budgetary constraints, it was difficult to implement this method to evaluate the programme. As an alternative, the author asked five experts to submit their views in writing after they had visited the programme. The experts were given detailed questions to be answered by them. A copy of these is included as Appendix 5.

One of the methods frequently used to evaluate a programme and used in this evaluation is the examination of records. If well documented, record examination can be a useful tool for the researcher to assess the progress of each child individually and the programme collectively. It has the advantage of being objective and credible, since the information is documented at the time of occurrence. If well analysed and collected, it allows for a useful value judgement; and does not impose any further burden on the staff as it is part of their daily routine. Record examination may, however, be time consuming for the researchers and incomplete from a data perspective (King et al, 1987), especially if no appropriate recording procedure has been developed and the organisation of records is not established. Since the programme is in its first year of implementation and due to the lack of accumulated records, our record examination focused on teacher logs, completed student workbooks, teacher-made tests, in-house memos and activity or field-trip rosters.

The last method used in evaluating the programme was the conduct of observations. Observation is based on what the researcher sees directly while watching the programme in operation (King et al, 1987:85). The observation focused mainly on classroom activities within a limited time, teachers' reactions during teaching sessions and workshops. Though it is useful in gathering first-hand information, the evaluator may run the risk of subjective judgements (Rogers and Badham, 1992). This researcher has spent one year observing

the implementation of the programme and noticed the interaction involved. During the course of evaluation, the researcher tried to minimise any subjective judgement by focusing on those observations which occurred frequently and by checking their impact using other sources.

8.2 EVALUATING THE PROGRAMME AND ITS COMPONENTS

There are no pre-agreed criteria for evaluating programmes that educate children with autism. However, there are many-well developed criteria for evaluating special-education programmes, from which the researcher can benefit during his evaluation of the programme.

For special programmes, Fitz-Gibbon and Morris (1987) suggest the use of theory-based evaluation. Within this approach, the evaluation focused on those activities that the designer or staff view as critical to obtaining the desired outcomes towards which the programme is aimed. The Office of Special Education and Rehabilitation Services, Handicapped Personnel Preparation Programme in the U.S.A. suggests specific items for rating the adequacy of programme evaluation. These include appropriate methodology, data collection, criteria to evaluate the programme outcomes and a method for assessing the effectiveness and efficiency of project-resources usage (US Department of Education, 1981 in Brinkerhoff et al, 1987).

The evaluation of a programme for special eduction in general and for children with autism in particular is not an easy task. First, the education of autistic children usually progresses painfully and slowly and its outcome is not immediate. Second, its impact can not be assessed only by the child's progress. It is necessary also to consider other stakeholders, such as parents. Third, external factors have to be considered, such as society's attitudes, and teachers' experiences and attitudes since these factors have a considerable influence on the effectiveness of the programme. The process of evaluation should be organized in such a way that educationalists, teachers and parents are given time to discuss, debate and make suggestions for change.

As such, programme outcomes can not be easily evaluated since they are the consequences of the interaction of many factors: objectives, student characteristics, curriculum, instructional strategies, parents' participation, support services, the quality of teachers, the programme environment and resources allocated. Nevertheless, an attempt has been made to evaluate the programme outcomes.

In order to organise our evaluation exercise, four items were identified as the major components for the evaluation: context, input, process and outcomes. Each item has its own method of investigation. Utilizing the theory-based evaluation suggested by Fitz-Gibbson and Morris (1987), it is possible to focus on those critical components that are essential to achieve the desired outcomes. Within this context, the suggested programme was evaluated by assessing the following critical components, as indicated in Table 8.1.

Table 8.1

The components of the evaluation exercise

	Context	Input	Process	Outcomes
Focus	To assess the need and motives behind establishing it, including the needs of children with autism and their families and whether the suggested objectives are sufficiently responsive to the assessed needs	To identify and assess the systems, procedures, institutional capacity, human resources needed for the implementation of the programme	To identify problems in the process of implementation and to record and assess activities and events during implementation which affect the efficiency of the programme.	To identify the outcome of the programme and relate them to the objectives as well as input and process information and improve their merit and value
Components of Evaluation	- The idea and motives - Programme enrolment - Site & facilities - Assessment of the needs - Programme objectives and IEP	- Manpower and organisational matters - Curriculum - Training and development - Teaching environment - Teacher morale and satisfaction - Support Services	- Supervision and guidance - Teaching directives - Educational activities - Mainstreaming - Parent involvement and relationships - Progress reporting - Co-curricular activities	- Learning objectives - Child progress - Parent satisfaction - Funding and sustainability of the programme - Awareness and dissemination of information
Methods	Interview, expert judgement	Expert judgement, documented observations	Expert judgement, documented observations,examination of records	Interview, documented observations, expert judgement,examination of records

Source: Modified from Brinkerhoff et al, 1987

Due to their importance, some components of the evaluation programme will now be discussed in detail, such as

1. child progress
2. evaluating the curriculum
3. parent satisfaction
4. teacher

8.2.1 <u>Child Progress</u>

In order to assess the child's progress in the suggested programme, two approaches were utilized: assessment tests and IEP outputs. As indicated in Chapter 4, many methods and tests are used to assess the child's abilities and his development while attending the programme. Among these, due to its effectiveness and simplicity, the programme utilised the PEP. The result of this test, along with other observations, provides the backbone for the developmental profile for each child. One difficulty with the PEP test is that it is not translated into the language of the programme. The researcher translated the test and administered it in the middle of the academic year as well as at the end of the year. The reason for administering it in the middle of the academic year rather than at the beginning was that translating it as well as training the psychologist concerned required some time. It was also difficult to assess the children in the beginning of the programme since many components were not in place which might have affected the child's development. In order to enhance the reliability of the test, the final PEP assessment was made under the direct supervision of one of the test's creators, Dr. Schopler. However, due to the lack of sufficient knowledge on the part of the psychologist concerned on how to implement the test, the reliability of the test outcomes was debatable. In addition, the forms of the tests were sent to Dr. Schopler in the USA for correction and interpretation, which led to extra delay. Consequently, the result was not considered in this evaluation.

Another source of information for assessing the child's progress is the information collected from the IEP of each child. In each IEP, the data collection procedure has been specified as well as the evaluation criteria. The proportion of goals achieved in IEP is a major indicator of the effectiveness of the programme. Within this context, we judged each child's development by producing a summarised report which covers the following skills at the beginning and at the end of the year: communication, social skills, fine- and gross-motor skills, academic skills and routine and order.

As indicated in Chapter 6, an IEP was developed for each child. Every month individual child's development was recorded and analysed, together with the weekly log of the teachers. After the initial approval of IEP by the parents, the parents were called for another two meetings during the academic year to discuss their child's development in relation to the agreed IEP plan. The IEP records as well as the outcomes of these meetings were examined and analysed to arrive at a rough indication of each child's progress in particular and of the programme in general.

8.2.2 Evaluating the Curriculum

The evaluation process of the curriculum should not be seen as a one-off step but rather as a continuous exercise and an integral part of the educational process which has implications for the modification of the programme. Many standard curricula include built-in methods of evaluation, such as regular or mastery tests. However, in the curriculum for autistic children, such built-in methods are not available.

Brennan (1985) has suggested four criteria to evaluate any curriculum/ programme: it should be real, relevant, realistic and rational. But the most important question of all - within the context of this programme - is whether or not it is a realistic curriculum. It is considered realistic if the prescribed learning objectives are achievable by the child, given his/her potential for learning.

The curriculum could be evaluated by the teachers themselves or by a team consisting of teachers and staff from an institution of higher education. If it is done by the teachers, the work involved in evaluating the curriculum could be used by them as a credit towards an award-bearing certificate, as practised in the west (Tilstone and Upton, 1993). This advantage is not currently available in Kuwait; however, the future usage of such a method is desirable and could be explored.

Within the context of the suggested programme, the panel of experts will

be asked to evaluate the curriculum and provide their suggestion for improvement.

8.2.3 Parent Satisfaction

The evaluation of parents' satisfaction is an essential component of programme evaluation, particularly their satisfaction with the outcome of the programme. Parents were asked to rate the outcomes of programme and their satisfaction with it. In addition, they were asked to respond to several semi open-ended structured questions regarding other positive or negative aspects of the programme, suggestions for change and any observations for improvement. The author interviewed only the parents of those autistic children who are currently enrolled in the programme, eleven in number. A copy of the questions asked during the interview is attached as Appendix 3.

8.2.4 Teacher

Teacher evaluation of programme effectiveness is a well-established practice, which is why it is essential to include it as one of the components for evaluating our suggested programme. Such evaluation was conducted through semi-structured open-ended interview with all the programme teachers. A copy of the questions that were used are attached as Appendix 4.

Another area to be evaluated is how well the programme was able to develop the teachers. In addition to the interview, this dimension was assessed by direct observation, the level of training and development programme, trainee comments and feedback. Observations of teachers included the way they interacted and cooperated with other teachers, especially dealing with the child during severe behaviour bouts and how they used such a situation to enhance the child's social interaction. In addition, the teacher was assessed for her level of cooperation with other teachers in other areas of the daily schedule, and her documenting of the basic information required to measure the progress of the child in order to develop his/her abilities to full potential.

To facilitate a comprehensive evaluation, the researcher asked some questions of both parents and teachers in order to analyse the differences in response. There were nine such questions in total. In addition, the researcher posed a further eight separate questions to teachers and one question to parents, as indicated in Table 8.2. Due to the limited number of teachers and parents interviewed, quantitative analysis and its significance will be limited. However, averages will be computed to show quantitatively the significance of the responses.

Before analysing the results of the evaluation result, it is necessary to emphasise the importance of follow-up studies as part of on-going assessment. As the programme evolves and develops, such studies of children after they have left the programme, would provide invaluable data regarding the programme efficacy in different areas.

TEXT BOUND CLOSE TO THE SPINE IN THE ORIGINAL THESIS

Questions	Parents							Teachers							Gross Average	Gross Ranking
	5	4	3	2	1	Average	Ranking within group	5	4	3	2	1	Average	Ranking within group		
I. COMMON QUESTIONS																
1. The IEP sessions were a useful tool	9	2	-	-	-	4.82	2	11	3	-	-	-	4.79	3	4.80	2
2. The curriculum subjects satisfy the desired needs	6	5	-	-	-	4.55	7	7	6	1	-	-	4.43	8	4.48	7
3. Support services were helpful in achieving the desired educational goals	10	1	-	-	-	4.91	1	11	3	-	-	1	4.86	2	4.88	1
4. The programme's teaching environment was supportive and cooperative	5	5	1	-	-	4.36	8	6	5	1	1	1	4.00	9	4.16	9
5. The co-curricular activities such as outdoor visits are rich and varied, and enhance the life of the child	9	-	2	-	-	4.64	5	13	1	-	-	-	4.93	1	4.80	2
6. The programme provides adequate feedback about the progress of the child	6	2	3	-	-	4.27	9	8	6	-	-	-	4.57	7	4.44	8
7. The programme provides me with sufficient knowledge and information which enables me to contribute to the education of the child	8	2	1	-	-	4.64	5	11	3	-	-	-	4.79	3	4.72	5
8. I feel that the programme has a positive relationship with the parents	10	-	1	-	-	4.82	2	11	3	-	-	-	4.79	3	4.80	2
9. In general, the feeling is that the child is developing satisfactorily	10		1	-	-	4.82	2	9	5	-	-	-	4.64	6	4.72	5

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Questions	5	4	3	2	1	Average	Ranking within group	5	4	3	2	1	Average	Ranking within group	Gross Average	Gross Ranking
II. QUESTIONS FOR TEACHERS							2									
1. Teachers, Headmasters and Directors are actively involved in planning and reviewing the programme.	-	-	-	-	-	-	2	5	8	-	1	-	4.21	2	-	
2. The programme's educational goals and objectives have been established and are well known.	-	-	-	-	-	-		6	5	-	3	-	4.00	5	-	
3. The learning objectives have been met.	-	-	-	-	-	-		4	9	-	1	-	4.19	3	-	
4. Teaching methods have been defined.	-	-	-	-	-	-		8	3	-	3	-	4.14	4	-	
5. The training programme is effective in enhancing the teachers' abilities.	-	-	-	-	-	-		10	4	-	-	-	4.71	1	-	
6. The instructions and directives were adequate	-	-	-	-	-	-		2	7	1	4	-	3.50	7	-	
7. Faculty meetings were useful gatherings for enhancing the teachers' experiences and further exchange of productive ideas	-	-	-	-	-	-		4	5	1	2	2	3.50	7	-	
8. Working as teacher in the programme gives satisfaction	-	-	-	-	-	-		6	5	1	1	1	4.00	5	-	
III. QUESTIONS FOR PARENTS																
1. The parents Support Group was a useful instrument	11	-	-	-	-	5.00		-	-	-	-	-	-		-	

5: Agree strongly; 4: Agree; 3: No opinion; 2: Disagree; 1: Strongly disagree

8.3 THE EVALUATION RESULTS

As indicated in Section 8.2, interviews were conducted with 14 teachers and 11 parents. Another three parents were available but excluded as their children had joined the programme only one month before the evaluation time. They would not have had time to reach sound judgement on the programme. The analysis presented in Table 8.2 begins with the responses to the common questions and then the specific questions for teachers and later for the parents.

Due to the nature of the population interviewed and their limited number, no meaningful statistical tests are applicable, but a more descriptive analysis was conducted with averages calculated when applicable. Furthermore, the interviews were not conducted anonymously. In order to avoid people saying what they think, the researcher would like them to say, a neutral interviewer other than the researcher conducted the interviews without any intervention whatsoever.   This interviewer was an experienced teacher from special education school in Kuwait. Parents were informed that honest responses would help to evaluate the programme's impact and enhance its effectiveness for the benefit of their child and his family.

An observation worth making is that for six out of ten questions asked during interviews, three parents had no opinion. Those parents may have had dissenting views but been afraid to express them openly.

Another observation which warrants notice is that for each question there were two or three teachers who were either negative or had no opinion. However, the remainder of the teachers had positive views about all the questions asked to them. What encouraged the dissenting views to surface was that all the teacher interviews were done by an outside teacher.

The panel of experts who reviewed the programme individually on the basis of the list of questions sent to them (Appendix 5) consisted of the following:

1. Eric Schopler
   Founder and Co-Director
   TEACCH Administration and Research
   Department of Psychology
   The University of North Carolina at Chapel Hill, USA

2. H. Booney Vance
   Professor/Director of Research Psychology
   Upper East Tennessee Educational Cooperation
   Johnson City, Tennessee, USA

3. Gary Mesibov
   Professor and Director
   TEACCH Administration and Research
   Department of Psychology
   The University of North Carolina at Chapel Hill, USA

4. Kathy Evans
   University of Hertfordshire
   England

5. Stephanie Lord
   Head Teacher
   Heathermount School
   Ascot, Berks, England

In order to present a systematic evaluation, the author will analyse in turn each of the components indicated in Table 8.1, starting with programme context. In addition, a set of general questions was developed to be used by the researcher to assess in a consistent manner the programme's effectiveness. A copy of such questions is attached as Appendix 6.

8.3.1. Programme Context

The idea and motives

The programme was established mainly by the researcher, who was the principal designer and developer of the programme with the encouragement of both MOE and KAPF.

The idea of providing adequate education for children with autism was developed to the point of a complete programme when four factors or

conditions were fulfilled - First there was growing demand by parents of autistic children for the MOE to provide their children with an adequate educational programme. When the idea of creating such a programme was brought to the attention of the MOE, they thought that it might be an ideal way for them to satisfy that need. In addition, the ministry viewed the creation of such a programme as a focal centre for training the teachers and educationalists in the public sector in how to deal with autistic children in ordinary schools. The enthusiasm of the MOE was reflected in their approving the licence to establish the programme within a record time.

Second, the availability of funds to establish and support the programme. As soon as the programme was presented to it, KAPF thought it a worthwhile channel for its participation in social-welfare activities in the country. Consequently, it undertook to provide the budget necessary for the functioning of the programme. What expedited KAPF's approval was the fact that this programme would be the first such project to be operationalised within the range of the organisation's activities, which would add credibility to its work.

The creation of a trust by KAPF for the benefit of the programme ensured the programme's viability from a financial point of view as well as sustaining its existence for a longer period. The success of such a programme could serve as a model for satisfying other needs as well as an instrument to motivate donors to continue their support for KAPF.

The third factor was the development of similar programmes in other countries in the region, which gave the idea acceptability and provided a motive for programme development in Kuwait. The programme's credibility was enhanced by the attraction of wealthy donors, which made possible the provision of comprehensive facilities to start the programme, such as a large swimming pool and a new sensory-integration room.

Lastly and most importantly was the shift in public attitudes toward the

handicapped in general and towards autism in particular. As indicated in Chapter 4, since the liberation of Kuwait in 1991 public attitudes toward providing special education have intensified and become more positive and receptive, paving the way for the establishment of many special-education programmes for the handicapped.

The programme got started very well although it did face a severe shortage of skilled manpower. There was enthusiasm and good support from all concerned. The main motive of the management and the teachers was to provide a better service for the children. The main motive of the MOE was to help in satisfying the increasing demands of parents of autistic children, while for KAPF it was a chance for the organisation to participate in the provision of social services.

Many problems were encountered in gaining acceptance by the teachers, which will be elaborated in the discussion of challenges that faced the programme. A few of these problems were the inability to follow-up the child's development, lack of rigour in delivering the work and lack of discipline. There was a need to gain the parents' acceptance, commitment and support for the programme. Many parents thought that their responsibility toward the child ended when they enrolled him on the programme. In addition, some parents did not offer the needed support and appropriate assistance for the teachers' efforts, while some parents were reluctant to join the parents' meetings, focusing their interest on their child alone rather than on the general interest of all the children.

As indicated in Chapter 6, the programme was established on the basis of seven components which focus on the child and his/her family. Most experts agreed that the programme was able to combine many approaches to develop an adequate educational programme for Kuwait. Evans noticed that 'a sensitive balanced programme was in place that had incorporated into it ideas and techniques from a number of sources'. In addition, the programme was able

to reflect the unique culture and environment of the country. In connection with this point, Lord noticed that 'teaching pupils with challenging behaviour may be especially difficult for women where clothing that enables freedom of movement is necessary'. However, this point of view is debatable, since the researcher did not notice such difficulties and no comments were made during the interviews concerning this issue.

Programme enrolment

The programme enrolled 15 children over the whole year. It started with 12 children in September 1996 and gradually increased to 15 children in June 1997. Children admitted to the programme had not been enrolled in any previous programme. They had mainly low- to medium-functioning autism with no severe behaviour problems. The programme admitted children from 4 years old up to 15 years for girls and 11 years for boys. This ceiling for the boys' age was set because there were no male teachers available to handle boys above 11 years old.

Site and facilities

The programme site consists of two connected buildings, surrounded by a small garden with access to all facilities. The site, which had originally been a housing complex, was modified to fit the needs of the programme. It has one big swimming pool, a large gymnasium, a sensory-integration hall (soft play and relaxation room) and outdoor playground.

There were 8 classes, each containing 1-2 children, depending on the level of child and the teacher's competence. The pupil-teacher ratio was 1:1 in most cases. The small-group teaching allowed for a high level of individual attention for the children. One big room was allocated as a library and resource room and furnished with the necessary books and educational materials. Space for the classes was adequate; however, classrooms would have been generally considered small, if the number of children had exceeded three per class. There were suitable places to which the teacher could

withdraw the child with minimum disruption or disturbance for him and other children.

While the experts felt that the facilities are adequate, both Schopler and Vance suggested the need to have a large room for free time and for use when more children are enrolled. Evans suggested the need to have an art room bigger than the one existing with a view to serving also the play therapist and drama and dance-movement therapist. All experts agreed that the library was adequate for the current needs of the teacher but they emphasised the need to develop it continuously for accessing new theories/ knowledge on autism.

The programme tried to develop a touch of beauty and provide a relaxing environment that can be used by the teachers, the children and their families, such as a water fountain, green plants, flowers and birds. Such a setting seems ordinary in green countries. However, in a desert country, it is refreshing and relaxing for those involved in the programme.

The key contributors to the programme were the Ministry of Education (MOE) and Kuwait Awkaf Public Foundation (KAPF) and many individual donors. The MOE felt that the programme fulfilled the need that it was trying to meet through the newly created Special Educational Council, while KAPF felt that the programme was worth pursuing since it will enhance the organisation's social role within society. Though the programme was accountable to KAPF, effective accountability rested with the management of the programme.

Assessment of needs

The needs of the children were assessed prior to the beginning of the programme through a survey analysis. Such needs were indicated in Chapter 5 and taken into consideration in designing the programme. The survey has sought the views of the parents because they are the people who best understand the needs of their children. The teachers were not surveyed to

solicit their views about the children's needs because all of them were new to their occupation and relatively lacking in knowledge about autism. As indicated in Chapters 6 and 7, the priorities of the programme were decided, as well as the factors that would affect its design.

Programme objectives and IEP

There was a written rationale for the programme, namely to help and educate autistic children, since there were no adequate or appropriate programmes available in the country. The staff and the parents were aware of the need and the rationale for establishing such a programme, as well as for promoting it. Its educational goals, as suggested in Chapter 6, were mainly set by the researcher, its priorities being established according to the needs suggested by the survey.

Most teachers agreed that the purpose of the programme was clear and that it had well-formulated objectives. The teachers also generally agreed that the programme's educational goals and objectives were established and well-known, with an average of four out of five (Question 11), although three out of the fourteen teachers did not agree. Those teachers indicated that the formulation of detailed objectives for the child was not as clear as the general goals. Some objectives were also difficult to measure from the teachers' perspective.

Before their inclusion in the programme, objectives were reviewed by a technical committee responsible for consultation and advice within the programme. The objectives focused on both the programme activities (what the programme will do) and also on its intended outcomes (what the children will learn), as indicated in Chapter 6. The planning and reviewing of the programme was done by all concerned parties, including parents, teachers, experts and sponsors. In response to the interview question whether the teachers, headmaster and director were actively involved in the planning and reviewing of the programme, most of the teachers agreed that they were, with

an average of 4.21 (Question 10). Some teachers felt they were actively involved in all major areas, others quoted only specific aspects, such as training and the preparation of IEPs. Some teachers felt that the involvement of the director and Headmaster was limited to areas which are vital to the programme, such as coaching, daily educational instructions and follow-up.

The objectives of the programme, as indicated in Chapter 6, were based on the literature reviewed (Chapter 3) and the children's needs (Chapter 5). The teachers used established needs or priorities as the basis for developing the objectives, which were translated into an IEP for each child within the scope of the programme's general aims.

Both parents and teachers agreed that the IEP session was a useful tool, with a gross average of 4.8 (Question 1). Parents accorded it higher approval than the teachers did (an average of 4.82 compared to 4.79 for teachers). All parents and teachers felt that the IEP sessions were useful because they provided them with a clear view of their expected roles towards the child as well as reassuring them about the seriousness of the programme. Though the implementation of IEP was, in general positive, some teachers faced difficulties in this regard. These included parents' inadequate understanding of the purpose of the IEP and the need for appropriate practical training and expert support during its implementation.

8.3.2. Programme Input

Manpower and Organizational Matters

Ideally, the staff appointed should have a special background or credentials. They should have:

(i)   enthusiasm and interest in serving this group,

(ii)   relevant education,

(iii)   appropriate experience,

(iv)   willingness to learn, and

(v)   the ability to function as part of the team.

However, due to the lack of teachers with experience in autism or special education, it was difficult to fill the teaching posts. The provision of training for inexperienced teachers was, therefore, crucial to the success of the programme.

The staff working in the programme include 12 teachers, 1 headmaster, 1 head teacher, 1 psychologist to coordinate the intake process and assist in instructional design and behaviour management, and 1 director as well as 3 secretaries (1 English and 2 Arabic) to address the associated needs of staff and families, 1 messenger and 1 driver. An administrative assistant is responsible for addressing various programme needs, including transportation, supplies and maintenance. The services of an occupational therapist, a speech therapist, a music teacher, an art teacher and a P.E. teacher have been obtained on a part-time basis.

The art, music and P.E. teachers had experience in teaching ordinary children but not autistic ones. Though they were subject to many general training courses relating to autism, nevertheless they require more intense and specialised training outside the country. However, since they are not Kuwaitis and are not sponsored by the MOE, there is little chance of this happening; and even if it is possible, it will be costly. Most non-Kuwaiti recruits were holders of a degree below university level. This did not provide them with the knowledge required to understand and address the needs of the autistic children. PE and music have a low status for Kuwaiti graduates within the teaching profession. Consequently these are careers most Kuwaitis did not pursue. The challenge for the programme is to find suitable Kuwaiti teachers and enrol them in an intense training programme for autistic children in the areas of art, music and PE.

An organizational chart was developed and job descriptions for the teachers were available. These reflected accurately what each member of staff would be expected to do. However, further refining of job descriptions is needed.

<u>Curriculum</u>

The programme has a well-defined curriculum and follows a structured education approach. A structured programme is designed to serve children's diverse needs and abilities. During the implementation of the programme, the major directives indicated in Chapter 7 were used to direct the programme's implementation. Within this context, not all the requirements were available, which reduced the programme's effectiveness. In addition, some of the components had to be modified in order to fit the Kuwaiti environment.

Both parents' and teachers agreed with the interview statement that "the curriculum subjects satisfy the needs of the child" (Question 2), with a gross average of 4.48. However, parents' accorded it a higher level of approval than did teachers (an average of 4.55 for parents compared to 4.43 for teachers).

The experts agreed that the curriculum subjects are satisfactory; however, further development is needed in this area. Vance suggested the 'need to re-analyse the scope and sequence of the curriculum. Some of the skill sequences appear to be rather lengthy'. Evans suggested that the curriculum should 'include as much of a normal education curriculum as the child is capable of assimilating but not overload this'.

Though modest, nevertheless the current trend is more toward integration between special and general education in Kuwait. The integration movement in the country focuses mainly on those children who have hearing impairments or are physical handicaps rather than on mentally or developmentally handicapped children. It might seem more logical to integrate autistic children since their appearance is normal, but their bizarre behaviour may initiate opposition from the parents of normal children. As such, limited integration with normal schools is expected.

The programme uses materials and toys of a high standard from the local market, with reputable brand names, such as Montessori and Early

Learning. In addition, some teachers made materials which are suited to the level of the children. However, Lord suggested that 'All materials should be coded with a picture or symbol, preferably using Makaton symbols, to develop future reading skills'. Evidence that the materials are useful is provided by the children's mastery of written goals, planned by their teachers, tested by the head teacher and written in their I.E.P.

Training and Development

Training and development was a success story in the programme. All experts agreed that the programme has an adequate training programme. The consensus of the teachers was unanimous that the training programme is effective in enhancing the teachers' abilities, with an average of 4.71 (Question 14). However, many complained that training sessions at the beginning of the year were intense and that their timing was not always suitable to the teachers' circumstances.

The training programme was intense at the beginning of the year in order to prepare the inexperienced teachers for the task of teaching autistic children. In subsequent years, however, it is expected that training will be more evenly distributed throughout the year.

Due to the nature of the job, which is psychologically and physically demanding, Evans suggested that the provision for 'staff support' is essential. This support could include psychological and social counselling, secretarial support, assistant teachers, etc. The programme often served as a training facility for undergraduate student-teachers, several of whom may be expected to join the programme later.

Teaching Environment

Concerning the programme teaching environment, parents agreed that the environment was supportive and cooperative, with an average of 4.36 (Question 4). Though the teachers agreed with that statement, with an average

of 4.0, two teachers were not satisfied with the prevailing teaching environment. It seems that the low satisfaction originated from the rigorous follow-up by the administration, the strict supervision by the educational body and the enforcement of discipline.

In addition, the researcher made many observations about the teachers during the handling of their duties or when cooperating with other teachers. Two areas worth consideration were the following

A.   Implementation of the child's schedule, whether related to an object or picture or words. Does the child understand his schedule as planned or do certain steps need modification? Does the teacher implement such a modification or not?

As a means of communication for the child, the schedule is used to make his world predictable, sot hat he knows what is he supposed to do and until when, what is going to happen if he finishes what he is asked to do and where this activity will take place. The answer to the questions when - what - where and how should all be answered in his day schedule and his work system. The teacher should try to reach the child's level of understanding and build on that. The schedule can be in the form of objects or pictures or words, or together, but has to commensurate with his ability to understand. Some teachers thought that the use of pictures represents a better approach for a child so either they do not start by using the objects illustrated or move directly to the picture, with the danger of leaving the child in confusion and uncertainty. Also at the same time, the teacher should assess the child's level of understanding and always try to move him/her forward, but must not overstretch the child's abilities.

B.   The handling by the teacher of a variety of situations. Though teachers of autistic children need to be flexible in dealing with the children's behaviour during day-to-day interaction, their inadequate experience meant that most of

the them lacked the necessary flexibility. For example, I noticed one day that a child was lying on his stomach, playing with toy cars, enjoying lining them up and looking at them. The teacher stopped him, insisting that the child sat on a chair and played with only one car. When asked why, the teacher indicated that she had got the impression during discussion that the children must be encouraged to display appropriate work behaviour, such as sitting on the chair. Sitting on the ground was contrary to that aim. It was explained to her that the child was in the transition area outside his class and during his free time, therefore, there was no harm in his playing the way he wanted to. We should remember that ordinary children at this age (the pre-school stage) frequently sit on the floor, but sometimes we forget that, and ask the autistic child to do things that we do not require from an ordinary child, whereas in fact the autistic child requires more flexibility.

While praising the programme for inclusion of 'transitional space' between classes, Evans suggested incorporating 'spaces designed to facilitate spontaneous play' which include providing the toys appropriate for the child and encouraging him/her to play freely as well as assisting him/her to play with them.

Teacher morale and satisfaction

In the area of developing and maintaining staff morale, there were a number of notes or comments. Some teachers complained of low morale, and stress caused by their teaching responsibilities. This could give rise to a problem of staff turnover. Turnover is an expected phenomenon in special-education programmes, since many staff may not have the skills necessary for the job. As indicated by Lord, 'Teachers who do not have these skills can be supported, but continued negativism has a devastating affect on the organization. These staff should be supported to leave'.

Some transfers were made at the end of the academic year, since some teachers were not up to the expected level. Turnover cannot be measured well

in the first year of the programme, although the expected transfer of 5 teachers out of a total of 12 is high. The lack of experience and the relative immaturity of teachers have contributed to this situation.

Turnover and lack of experienced teachers is a widespread phenomenon in this stressful occupation. Statistics in the U.S.A. report a 25% annual turnover of staff in special eduction. Furthermore, 35 to 40% of those in the field do not have full certification. In other words, they have neither experience of nor training with autism. Consequently, the Autism Society of Washington (1996) suggested that teachers themselves need an IEP before they can write one for their students.

Concerning the teachers' satisfaction with working in the programme, during the interview, eleven out of fourteen teachers agreed that working in the programme gave them the satisfaction they desired. The average score for this item (Question 17) was 4. This indicates that most teachers seemed satisfied with the programme. However, two of the teachers did not accept that their involvement with the programme was satisfying.

Two areas which had an affect on the morale of the staff were the distribution of special allowances and the application of disciplinary measures. The programme has developed clear guidelines for allocating allowances, including teacher involvement in the evaluation of their performance. As for disciplinary measures, due to the lax work attitudes within the culture of the country, it seems necessary for the programme to have a tight disciplinary procedure in order to instil professionalism.

Support Services

As for the enquiry into the usefulness of support services (Question 3), both parents and teachers agreed strongly with a gross average of 4.88 that these were helpful in achieving the desired educational goals. Though both felt that the services were adequate for the start-up period, they indicated - during

interviews - the need to have full-time speech therapists and the need for a full-time qualified psychologist. Such services could be provided on a part-time scale until full-time provision is practical and justified.

8.3.3. Programme Process
Supervision and Guidance

The administrative staff displayed commitment to the programme's objectives. However, such a programme needs a well-trained and highly experienced head-master, who is capable of providing the necessary guidance and technical support, which was not the case in our programme. Consequently, some teachers felt that direct supervision was not adequately supportive of the staff and did not encourage them to take on responsibility. Staff ability levels were also low and professionalism was too weak. The teachers, however, share a spirit of cohesiveness and accepted the programme's purpose and values, as did the children and their parents. It is expected that as the experience of the headteacher increases, the level of supervision and guidance will improve.

Teaching Directives

Teachers' responses to the statement that instructions and directives were adequate, showed the lowest average of 3.5 (Question 15). Similar responses were given to the statement that the faculty meeting was a useful gathering for enhancing teachers' experience and providing further exchange of productive ideas (Question 16). The inadequacy of teaching directives and the inefficiency of the faculty meeting were notable weaknesses of the programme, which arose due to the lack of technical capacity and professional support.

The inadequacy of the teaching directives stemmed from the lack of experience of both the headteacher and the psychologist, and the lack of direct guidance to the teachers from the MOE, while the ability of both headteacher and psychologist for educational planning exceeded their ability to supervise

and guide the inexperienced teachers through hands-on training and direct coaching.

Educational activities

During interviews, the teachers generally agreed with an average of 4.14 (Question 13) that the teaching methods have been clearly defined; nevertheless, three of the teachers did not agree with that statement.

In order to ensure that the educational activities fit the desired goals, each teacher was asked to write a plan for each day's activities within a single week and evaluate them at the end of the week. Furthermore, on the last Wednesday of every month, a teacher meeting is held to discuss educational goals and activities. Such activities are also evaluated on a weekly basis by the headteacher and the director. If any activity does not fit the stated goals, the teacher is requested to revise those goals.

Example: Some teachers could not produce well-defined goals for the use of the sensory-integration hall. The researcher had to sit with them, making suggestions and modifying their plans. One of the teachers was asked not to use the room until her goals were clear for her, in order to avoid frustrating the child.

The programme has encouraged the participation of all concerned in its activities. Teachers and children are encouraged to take participation in available activities and make use of the facilities, such as swimming, music, art, playground or in-class activities, to the maximum possible. Teachers and parents are expected to take part in these activities within the class according to their availability.

Since autistic children lack the motivation to learn, the programme has taken a few measures in this direction. Since the programme ratio is mostly 1:1 (1:2 in a few classes), the teachers have a definite focus to motivate the child to participate using reinforcement (whether tangible, verbal, social or the

activity itself). Planning for those activities seems to work in most cases.

For the motivation of social relations, Evans suggests adopting 'a child-centered approach where everything starts with child and the focus will be on social communication and adjustment, attachment and intensive one-to-one and small group sessions', although this approach might not work for all children with autism. However, it was noticed that some teachers were successful in implementing Evan's suggestions, especially social play that could be undertaken with siblings at home.

Mainstreaming

As indicated in Chapter 6, due to inadequate awareness of the value of mainstreaming, it is envisaged that this will be implemented gradually. For example, some classes from ordinary schools have been invited to the programme for joint activities, while the programme has opened a dialogue with the MOE on the ways and means of gradually achieving mainstreaming.

Progress Reporting

Concerning the question whether the 'programme provides adequate feedback on the progress of the child' (Question 6), eight out of eleven parents found it adequate while three of them had no opinion. Most felt that the components of the report are appropriate and its periodicity adequate. Some parents favoured having such feedback in the format used in kindergarten at the public schools. All the teachers agreed with Question 6 with an average of 4.57, compared to parents' average of 4.27. The programme is thought to provide adequate feedback, although parents seemed to be less satisfied than teachers.

Some parents were less satisfied because they expected detailed notes about all the activities of the child, a matter which is beyond the capacity of the teacher at this stage. Those parents were asked to visit the programme and monitor their child's activities through a camera. Some parents also requested

the programme to provide them with certification showing that the child had passed a certain educational grade or level. Such a practice could be premature at this stage and would need extensive involvement with the MOE for its accreditation. This may be considered as a long-term target.

Parent Involvement and Interaction

All parents agreed strongly that the Parents' Support Group is a useful instrument, with a perfect average of 5 (Question 18). They suggested that the group should meet to discuss problems facing the child, once a week, compared to the current practice of one meeting every two months.

Some of the teachers felt that there is a need to meet the parents outside the programme, mainly in the home, to understand the child's behaviour and the family setting. Parents' visits to the school were greatly appreciated by the teachers, who felt that they should be more rigorously encouraged. Evans suggested that parents of autistic children 'can do a great deal in reinforcing the educational programme beyond the classroom', which can later 'develop into support services'.

The programme has been able to develop a positive relationship with the parents since it has paid attention to informing them regularly of the daily progress of the child, mostly in an informal way, which encourages their participation in the programme itself and in the education of the child. In addition, all the parents' needs were felt to be met within the context of the programme since its objectives were based on their views. It was reported also that the programme was able to provide the parents with sufficient knowledge and information as indicated by their responses (Question 7). This has led to the development of a constructive and positive relationship with the parents.

The programme has won acceptance from parents by making them a partner in the programme and involving them in the educational development of the children through their participation in the preparation and implementation

of the IEP. Furthermore, whenever an expert in autism visited the programme, parents were invited to take part in a question-and-answer session. Such activities have helped to increase parental acceptance of the programme. As indicated in Chapter 6, a shift in the way parents perceive their role is essential for the programme's effectiveness.

Co-curricular Activities

Co-curricular activities, such as outdoor visits, were seen by nine out of eleven parents as rich and varied and enhancing the life of the child, while two parents had no opinion (Question 5). On the other hand, teachers found such co-curricular activities very satisfying, with an average of 4.93, compared to parents' average of 4.64.

The comparatively low rating by the parents for such co-curricular activities may be due to their belief in the traditional way of teaching, which focuses on enabling the child to read or speak, rather than the non-traditional method of teaching him behaviour through modelling in a natural environment. As indicated in Chapter 6, parents perceive their role vis-a-vis the child as following up his academic homework rather than as a means of shaping his behaviour in a different situation. Though the need for co-curricular activities is obvious for even ordinary children, these are more essential and desirable for a child with autism.

8.3.4. OUTCOMES

Learning Objectives

The majority of teachers agreed (an average of 4.14) with the statement that the learning objectives have been met (Question 12). Some of them felt that objectives in the areas of behavioural and academic skills have been less satisfactorily met than others, though the programme has been instrumental in enhancing the child's skill in social relationships, communication and self-care.

Child Progress

Both parents and teachers were satisfied that the children were developing satisfactorily, with a gross average of 4.72 (Question 9). Nevertheless, the parents were more favourable in their view (the average was 4.82 for parents and 4.64 for teachers).

The slightly lower responses of the teachers might have been due to lack of self-confidence and the inability to understand some IEP areas. Furthermore, some of the children had been exposed to only six months of education, which teachers felt was too short a period in which to judge their progress. Teachers also based their judgement on the achievement of the I.E.P. which they rated modestly, while parents based their judgement on the child's progress in general. For the parents, the comparison was between enrolment on an educational programme and non-enrolment, and they had witnessed positive differences in their children. The progress of the children, as indicated by the detailed reports (Table 8.3), has been encouraging.

The rating of the child's progress was done by the two class teachers and supervised by their head. In addition, it should be noted that if a child received a strong progress rating, it should be seen in relation to his individual IEP which was developed at the beginning of the year. So such a rating would based on individual progress and rated by a group of teachers responsible for his education.

At the beginning, a simple, informal assessment, followed by a PEP test, was administered. Arrangements were made to discuss the outcomes of both. As such, the rating of the child's progress was arrived at after a long discussion and consultation taking into consideration the analysis of the child's needs and how effectively they had been met (Appendix 7). As a result of such a methodology, Table 8.3 presents the progress of each child with regard to the required skills. In addition, a summary of the children's progress is presented (Table 8.4).

Table 8.3

Progress of the children with regard to the required skills

Subject No./ Skills	Communi-cation	Social skill	Fine motor	Gross motor	Academic skill	Routine and Order	General
1	modest	strong	strong	strong	modest	strong	strong
2	modest	strong	strong	strong	strong	strong	strong
3	modest	strong	strong	strong	strong	strong	strong
4	modest	strong	strong	strong	strong	strong	strong
5	modest	strong	modest	modest	modest	strong	modest
6	strong	strong	modest	modest	strong	strong	strong
7	strong	strong	strong	strong	strong	strong	strong
8	modest	modest	modest	strong	strong	strong	modest
9	modest	modest	modest	modest	modest	strong	modest
10	weak	modest	strong	strong	strong	strong	strong
11	modest	weak	modest	strong	modest	strong	modest
12	strong	strong	strong	modest	strong	strong	strong
13	weak	strong	strong	strong	strong	strong	strong

Notes: If a child scores strong in four areas out of six, his general score will be strong

Table 8.4

Summary of the children's progress

Level/ Skills	Communi-cation	Social skill	Fine motor	Gross motor	Academic skill	Routine and order	General
Strong	3	9	8	9	9	13	9
Modest	8	3	5	4	4	0	4
Weak	2	1	0	0	0	0	0

Parent satisfaction

The programme has been successful in establishing a positive relationship with the parents. Ten out of eleven parents felt strongly that the programme had a positive relationship with them as parents, while one was not

sure (Question 8). They suggested having an open day at school where the parents can attend the classes. The teachers also felt that the programme has a positive relationship with the parents, with an average of 4.82.

Funding and Sustainability of the Programme

The programme was able to fund itself substantially by forming excellent relationships with both the sponsors: KAPF and MOE. The future sustainability of the programme is ensured by the creation of trust and in its efficacy. The trust collected in 1996/97 a total of KD 151,022. Furthermore, sustainability could be ensured by wider acceptance of the programme by all concerned, especially KAPF and MOE, through good public relations and continuous progress reporting about the programme.

The programme was also able to maintain expenditure under control, with the actual expenditure representing 87.7% of the estimated cost. On the funding side, though the programme collected a large amount for the creation of a trust, the funding plan achieved only 80.3% of the anticipated resources, as indicated in tables 8.5 and 8.6.

Table 8.5

**Comparison of the estimated and actual yearly
total cost of the programme**
(in KD)

Expenditure	Estimated	Actual	Remarks
Teachers	100,800	100,800	
Management staff	19,200	7,200	
Support staff	7,800	3,870	
Admin. staff	11,800	3,733	
General Admin.	60,000	35,003	
Consultancy & Training	20,000	13,238	
Capital	10,000	40,092	
Contingency	3,000	-	
Total	232,600	203,936	

Table 8.6

Comparison of the estimated and actual
Funding Plan for the Programme
(in KD)

RESOURCE	Estimated	Actual
Ministry of Education (Salaries of teachers)	100,800	100,800
Tuition fees	12,000	5,000
Sale of publications	3,000	4,948
Donations and contributions	60,000	40,274
Income from the proposed fund	10,000	-
Total resources (Funds collected)	175,000	151,022
Total expenditure	232,600	203,936
Deficit to be borne by KPAF	56,800	47,886

As indicated in Table 8.5, the total yearly expenditure was KD 203,936 shared by both KAPF and MOE. The start-up cost was estimated at KD 30,000 and was borne by KAPF. The financial status of the programme was satisfactory. It was able to get funding and continuous commitment from KAPF for all expenditure necessary other than teachers' expenses, which were borne by the MOE. The cost of education per child for the whole year was about KD 13,596 (US$ 45,274), which is comparable to other programmes inside and outside the country. For example, in 1992-93, total cost per child in the Delaware Autism Programme was approximately US$ 40,000 with local tuition contributing around US$ 12,000 (Bondy and Frost, 1994:38). It is, expected, however, that the cost per child will be reduced over time, as more children are enrolled in the programme.

Awareness and dissemination of information

The parents also agreed strongly (an average of 4.64) that the programme provides sufficient knowledge and information, enabling them to contribute to the education of their child (Question 7). Most parents also

indicated that they were eager to disseminate information about autism to those who request it. Such interaction indicates the extent to which the programme has succeeded in establishing ownership with the parents. An even higher approval rate was accorded by the teachers concerning Question 7 (an average of 4.79). This indicates the effectiveness of the comprehensive teachers training plan. It also indicates the need to enhance, through the programme, parents' awareness.

8.4 STRENGTHS AND WEAKNESSES

After evaluating the different components of the programme, it is important to identify further its strengths and weaknesses in order to suggest remedies and recommendations.

Weaknesses

From reviewing the responses to the questions, it seems that several areas of weakness have been noticed in the programme's implementation. These include the following.

1. The inadequacy of teaching methods, as well as of instructions and directives. Some teachers have indicated their dissatisfaction with teaching methods, instructions and directives. The relevant item received the lowest average of all the questions. There is clearly a need, therefore, to improve in those areas. Many comments were raised by teachers during the interview suggesting that technical guidance, as well as educational instructions, fell short of staff expectations. The teachers further complained that the educational directives were not clear and teacher reporting diffused and scattered, since there are many parties involved - the director, headmaster and the headteacher neither were the sources of directives clear and sometimes there were contradictions among the three sources. The teachers felt that the headteacher as well as the director should work closely with them in order to guide them during their challenging task.

This indicates the need in the future for an experienced headteacher, specialized in autism, who can bring technical competence to the directives given and be involved in day-to-day problem solving as well as resolving whatever classroom issues face the teachers. Though it was not envisaged that the director would be involved in the day-to-day supervision of all classes, s/he may arrange weekly meetings with the teachers where problems can be discussed and solutions suggested. This matches the teachers' suggestion in this regard. It should be remembered that most of the teachers had only just graduated from university and did not have the technical or educational experience necessary even for teaching in an ordinary school. As a consequence, they may have felt the need for more guidance than would normally be necessary.

As indicated earlier (Question 11), the appointment of a specialized head teacher will also help teaching staff in the formulation of detailed objectives, as well as enabling them to measure the achievement of these objectives. The fact that three teachers did not agree with Question 11 could be attributed to their lack of a teaching background at kindergarten level, leaving them unfamiliar with current teaching methods.

One reason why the educational directives were not accepted by the teaching staff was that they came from the headteacher and psychologist, both of whom had been colleagues until their recent promotion, and so were perceived by teachers as not having the superior technical competence which would justify their issuing the directives.

Though both had a higher education degrees (masters), it was thought that it would have been better for them to practise teaching the mentally retarded for one year before assuming their new responsibilities. This would allow them to gain experience and better prepare them for their new position, as well as giving them more credibility with other staff.

2. <u>The ineffectiveness of the staff meeting and the lack of focus</u>. Staff meetings were mainly spent discussing administrative matters instead of focusing on technical and educational issues, which reduced their effectiveness. They were used as a forum for announcing administrative instructions, with little discussion. Some teachers suggested that their experience in dealing with autistic children could be discussed during their meetings, and shared.

One reason why the meetings started to become enmeshed in administrative matters was that most of the teachers were frustrated by being appointed by the MOE while they were officially working on the programme. At that time, in many respects their financial and administrative situation was not clear, which necessitated allocating more time to clarifying such relationships and arrangements.

3. <u>Stressful teaching environment of the programme</u>. Since autism is a complex syndrome, teachers are under continuous stress while dealing with autistic children. Indeed, the teachers suggested that there is a need for recess of at least fifteen minutes during the daily programme. Because the job is so exhausting, they also suggested a reduction in the number of working hours, and emphasised the need to raise teacher morale through continuous coaching and by motivation.

The causes of stress and burn-out are many, but some specific ones quoted by the teachers were: frustrated role expectations, role ambiguity, stressful workloads and an inappropriate organizational environment. It is not uncommon for some teachers to create stress by misinterpreting situations or other people's activities/intentions, which was the case for some teachers in the programme.

4. <u>The prevailing culture of the programme</u>. Some teachers contended that there is injustice in the distribution of their special allowances, and there is a need for clear guidelines in this regard. Others felt, however, that the

system is fair. Also, the teachers felt that the administration is applying very tight disciplinary measures without due consideration to the circumstances of the teaching staff. Some teachers noticed, however, that a spirit of cooperation and love exists in the programme and that this spirit should be maintained.

5. <u>The lack of communication amongst the staff</u>. It could be observed from the written comments of the teachers that one of the major reasons for their demoralization was the lack of communication amongst themselves and other staff. Some teachers indicated their inability to raise complaints or to meet the director as frequently they would like. Others felt the need for more scheduled meetings for teachers and staff.

6. <u>The need for breadth in the curriculum subjects</u>. Many teachers felt the need for greater breadth in the curriculum subjects, especially communication with the children. Vance, while concurring with the teachers' observations, recommended utilizing 'intensive language stimulation, language development and speech therapy throughout the programme'.

<u>Strengths</u>

1. <u>The effectiveness of training activities</u>. The implementation of such a comprehensive training plan was an essential component for the programme. However, the teachers felt that arrangements for implementing such activities should take into consideration family obligations as well as the convenience of teachers. The timing of the training needs to be coordinated with the abilities and the obligations of the teacher. Also, training is needed in the area of behavioural management and communication.

2. <u>The usefulness of the Parents' Support Group</u>. All parents agreed on the usefulness of the group and the need to enhance its effectiveness. One way of doing this is to allow parents themselves to run the groups rather

than the staff of the programme who performed this task in the first year. This will establish parental ownership of the process and recognise their roles and responsibilities.

The parent support group was a success story because it was well prepared and was facilitated by an outside expert who could satisfy the needs of the parents and answer their questions. Furthermore, the meetings were interactive; parents had the chance to listen and to express their problems and concerns and receive feedback.

3. <u>Better partnership and wider involvement of parents</u>. The interview responses indicate that both parents and teachers agreed strongly that the programme has established a positive and strong school-family relationship. The programme was instrumental in maintaining good relationships with the parents through scheduled meetings and better interaction, as well as through adequate feedback. In addition, parents were involved in the educational welfare of their children through the IEP sessions at the beginning and the end of the year, and through the continuous exchange of notes and reports about their children's progress. In interviews, most teachers expressed the view that parents were committed to strengthening this partnership.

4. <u>The effectiveness of the co-curriculum activities</u>. All teachers and parents agreed that the programme was successful in implementing co-curricular activities and that their periodicity and timing were appropriate. Visits to restaurants, leisure places and supermarkets were favoured by the teachers.

The co-curricular activities were rated important by the teachers for two reasons: first, they form part of the teaching process for the child and constitute a useful tool in teaching him to function within a natural setting. Second, the teachers felt that such activities reduce the stress created within the school or class environment and provide a more relaxed setting

for child-teacher interaction.

5. Wider dissemination of information

One of the strengths of the programme was the publicity it received as well as the wider dissemination of information about autism. The programme has conducted 15 newspaper as well as two televised interviews, and many radio broadcasts. Many articles have been written about autism and at least 3 books have been published by the programme for general distribution, as well as several pamphlets. Schopler concurred that the public-awareness activities were successful and suggested focusing more on parent/profession interaction.

An indication of the effectiveness of such publicity is that, currently, within official circles, the word autism is well known and the condition recognised as one of the categories of handicap, to the extent that many educationalists in Kuwait feel that autism is over-emphasised. Mesibov was 'impressed by the number of community leaders who are aware of the programme and supportive of its efforts'. The programme has been invited to every meeting of the handicapped council, even though it has only recently been established.

6. Independence in running the programme

Though the director was accountable to the KAPF, she has autonomy in administering the programme. This gave the programme flexibility and contributed to its efficient running.

8.5 LIMITATIONS

One year is a short time to gauge the effectiveness of the programme and whether continued development can be maintained. Though we were able to identify crucial areas which contributed effectively to the education of children with autism from the parents' perception, controlled studies will be able to indicate with greater certainty what aspects of it are useful for successful

replication. Nevertheless, the preliminary findings are encouraging.

8.6 CONCLUSION

The purpose of evaluation is threefold:

(i)   to ensure that the programme addresses the critical areas of needs;

(ii)   to identify the strengths, weaknesses and challenges that face the programme; and

(iii)   to ensure that the stated goals and objectives and resulting instructional approaches are producing the desired results.

All those objectives have been covered in this chapter.

The findings of this evaluation have demonstrated the success of the designed programme. In addition, they have provided some evidence of the complexity of needs manifested in the context of educational provision for children with autism.

The programme's strong characteristics were the emphasis on training, focus on professionalism, partnership with parents, sustainable financial position and wide dissemination of information. The challenges it faced were inadequate manpower with insufficient skills and experience, lack of a receptive teaching environment, insufficient technical capacity, lack of communication and the need to instil professionalism into and attract qualified teachers.

The critical activities that shaped the programme were: the well-structured classroom, the structured environment for the children, adequate funding and facilities, independence in running the programme, dedicated teachers, the low student-teacher ratio and the excellent facilities. The small number of children and the small premises allowed for positive teacher-child interaction.

The evaluation indicates that the programme was effective in addressing the critical areas of needs.   Although there is still room for revision and

improvement, success in this area has been critical. Nevertheless, it will be necessary to revise and modify the programme continuously to meet the changing needs of the children.

Teachers and parents can work cooperatively and consistently to ensure that children with autism reach their full potential. The future challenge of the programme is how to enhance the expertise and level of confidence of teachers, as well as how to gain wider acceptance for the programme.

CHAPTER NINE: CHALLENGES AND RECOMMENDATIONS

Like all other programmes, the educational programme for children with autism in Kuwait is to some extent unique because it addresses, in addition to the basic universal educational needs of the children, the cultural characteristics of the society. It focuses on implementing the programme through the employment of indigenous teachers and the injection of a volunteer spirit and humanitarian motives for educating these children.

As indicated in Chapter 8, the programme was in general well designed to meet the desired objectives. Nevertheless, during the implementation stage, many challenges were faced, including sympathetic attitudes towards autism, lack of technical capacity, inadequate technical support, the relationship with the MOE and how to regularise it, a negative work ethic, lack of eagerness to learn and to be trained, lack of discipline and unclear organizational authority. Some of these challenges will only be resolved through in-depth study while others necessitate additional resources and a reformulation of the programme's priorities and functions. At the beginning of this chapter, we will identify the challenges that face the programme while the latter part will be devoted to recommendations for future improvement.

9.1 THE CHALLENGES THAT FACE THE IMPLEMENTATION OF THE PROGRAMME

As expected, many challenges have faced the programme during the implementation stage. Some of these were anticipated (as indicated in chapters 6 and 7) while others occurred unexpectedly. Here we will focus only on those challenges that are of a general nature and may have a long-lasting impact on the programme's effectiveness when implemented in other environments or countries. Amongst these challenges are the following:

1. <u>The Relationship and Support from the Sponsors</u>

As indicated in Chapter 8, the programme was viable because the MOE and KAPF made joint efforts to establish it. However, as regards the necessary support, two challenges face the programme: the lack of adequate supervision over the teachers by the MOE and the reluctance of KAPF to provide the necessary autonomy and full financial support.

Though the teachers were allocated and their salaries borne by the MOE, the ministry did not initially show adequate interest in the supervision of teachers. Instead, it depended entirely on the programme's management to carry out this task. This has put an extra load on the already over-burdened management. In addition, the MOE failed to provide any training or guidance for the newly graduated teachers posted to the programme, which led to many organizational, behavioural and attitudinal problems.

The lack of adequate guidance from the ministry has led to the frustration of the teachers. What aggravated this frustration further is the injustice the teachers felt when they compared themselves with their colleagues in general education. The latter have more administrative and technical support, a lighter teaching load, few non-teaching responsibilities and less intensive training programmes.

Since its inception, the programme has been sponsored by Kuwait Awqaf Public Foundation (KAPF), itself only recently established, and is considered as one of the organisation's initial successful projects. Since KAPF was eager to encourage individuals and institutions to contribute to its funds and activities, the programme gained wide acceptance with KAPF management because it was successful in the collection of substantial funds as endowments. Such trust and acceptance allowed the programme more freedom and flexibility in running its day-to-day activities. However, KAPF subsequently decided to rationalise the yearly amount allocated to the project, encouraging it to mobilize the needed funds elsewhere. Such fluctuation within the initial period of

launching the programme raises concerns about its future sustainability.

As the programme established its image and role, interest from different parties, including KAPF and the MOE, started to grow. The ministry showed a greater interest in influencing the programme and suggested that it should be considered as one of the programme's main sponsors. It also expressed its desire to show the programme as one of its achievements. Unless a balanced approach is adopted to satisfy both sponsors, a further challenge may be expected in this area.

The keen interest in the programme's activities showed by the sponsors and other institutions is a positive sign, since it will lead into more understanding and enthusiasm about the needs of the programme. However, it may lead to wider intervention and direct influence by the sponsors. This may hinder the current flexibility that the management enjoy in running the programme's daily affairs.

2.   The lack of adequate teaching experience: When the programme was established, in the first term of the first year no children were enrolled in order to focus on the conceptualization of the programme by the teachers and to enhance their theoretical understanding of its contents. In the second term, five children were accepted and the teachers were distributed in five groups. The ratio was three teachers for each child and they dealt with the child in turn. Since their abilities were different, not all the teachers were equally effective. Such differences in capabilities led in many situations to conflict, due to the inability of some teachers to adapt and cooperate in writing, as well as implementing the educational plan for the child.   Due to such limited experience, the programme also faced difficulties in getting complete data about each child. Most teachers preferred to prepare very summarised written report or to give verbal ones. Many times, when the need for behaviour management arose or when it was necessary to report to a child's family, there was little convincing information available from the teachers to explain to parents what

had happened in a certain situation. As Lord noticed, 'There was very little evidence of record keeping following teaching sessions'. Such poor recording led to the situation of insufficient information about children and increased parental concerns concerning the children's progress. This indicates the need to train teachers in basic skills such as report writing, observations recording and team work. Although the amount of funding to support initial training may sound generous, its positive impact in achieving a favourable teacher-pupil ratio will, in the long run, warrant the additional expenses involved.

The effect of low-calibre teachers was noticed in the lessening of the potential impact the programme has on the children, and led to a decline in teacher satisfaction. As a consequence, their effectiveness in delivering their teaching functions may have suffered.

3.   The flourishing of a lax culture: In the first year of implementation, the management adopted relaxed rules concerning teachers' attendance. However, as the programme expanded in its second year, an administrator familiar with the rules concerning absenteeism and lateness was appointed. As soon as these rules were implemented, dissatisfaction started to build-up among the teachers, most of whom were new graduates who had not previously been exposed to these rules, although they are normally applied in other public schools. Such a lax culture also evolved due to the general laxity of the work environment within the country bureaucracy, as indicated in Chapter 2. Discipline could not, therefore, be enforced to the level needed or desired for the running of the programme. Since teachers were recruited according to government rules, termination of their contracts was a cumbersome procedure and replacements could not be obtained immediately.

For those with poor work performance, the only alternative for management was to transfer them outside the programme (to other public schools), which was considered a reward by the teachers, because those teachers assigned to the programme were appointed on an exceptional basis

and avoided the longstanding recruitment procedure and competition process including exams and interviews. Transferring teachers to public schools meant, therefore, a shorter recruitment period for new graduates, who were sent to a more relaxed environment with fewer teaching duties. Such a situation may demoralize and demotivate other dedicated teachers currently working in the programme. Arrangement should be reached with the MOE to avoid such situations and allow for greater flexibility in hiring and firing. In addition, a delicate balance and gradual approach should be taken in achieving the desired discipline within the programme.

4.   Narrow eligibility of the programme: One challenge arose because of different views about eligibility and early intervention. On the one hand, Schopler suggested that the older autistic population should have priority, especially males, since the incidence of autism is higher among males than females. Vance, on the other hand, suggested starting a pre-school class, since early intervention advances the child's educational development. There are, therefore, two viewpoints: (1) if you have limited resources, you should use them to educate the younger population because it will have a larger impact on them; (2) limited resources should be channelled to those who most need them and who are more desperate to go to school, such as older children. This is both a moral and cultural question.

Both upstream and downstream expansion enrolment eligibility may be considered in the future, provided that adequate teaching resources are available. The programme should look into ways and means of enhancing current manpower resources, including the recruitment of consultant and expatriate teachers.

An important challenge that will face the programme in the future is how to deal with adult male students. The programme at present involves only female teachers who are not capable of dealing with male adults without the help of some male staff. As such, the existing segregated arrangement of the

programme cannot deal effectively and adequately with such problems, especially in the area of behaviour management. As an alternative, a parallel programme for the male adult population could be established, with wider facilities which fit the characteristics of such a population. This facility, if established, will most likely depend on non-native staff since native teachers are currently rare in the public schools. Such a parallel programme could enjoy all the facilities that are currently available in the programme.

5.   Balanced publicity and its impact: Due to the uniqueness of the centre, the effectiveness of the preliminary publicity campaign conducted through the mass media, together with the invitation to foreign experts to conduct seminars and training programmes, attracted a wide attention within the society. Many benefits resulted, including:

i)   many psychological therapists in ordinary schools enquired about autism and the activities of the programme. Most of them have visited the programme and have started to refer some cases.

ii)   many psychological and social workers from the MOE have visited the programme to acquaint themselves with its features and activities, while many university students have requested that their practical training be conducted in the programme, with many research proposals being received.

Such attention, nevertheless also has a price. Many key figures in KAPF and the MOE showed interest in influencing the basic decisions, though they lacked the necessary experience and exposure. This problem, though, not currently a threat, if not delicately contained may have an impact on the efficiency and professional credibility of the programme. Furthermore, wide publicity increased the expectation of many parents, especially those on the waiting list. Consequently, many families were disappointed that their children could not be enrolled on the programme immediately due to limitations on the intake numbers. Those parents could not accept the idea of a gradual implementation of the programme nor did they accept the notion that teachers

need to be trained to enable them to develop the target children to their maximum potential. Most parents were desperate to increase the enrolment ratio, which put pressure on the programme management and its sponsors. However, the selection of children using certain criteria, as indicated in Chapter 7, may motivate and encourage parents to work harder with their children for the limited places available.

Many parents failed to recognise the importance of having sufficient teaching capacity, because they considered the programme as a nursery school rather than an effective educational programme. This is because parents of autistic children face difficulties and frustration in caring for their children at home. The programme needs to intensify its efforts to educate parents about the programme's aims and to inform them periodically about progress and development.

As the programme ended its first year of implementation, it received a positive reception from many special-needs units in neighbouring countries interested in the education of autistic children. A group of male teachers from public schools in Riyadh in Saudi Arabia were trained in the programme for two weeks. Two teachers from Bahrain were provided with a scholarship by KAPF to be attached to the programme for a whole year. Similar arrangements are being made with Qatar for training and consultation.

5.   Inappropriate attitudes towards learning and self-development: Since its inception, the programme has implemented an ambitious training scheme which included facilities for self-development and independent learning. However, some of the teachers enrolled lacked the necessary interest and motivation to gain specialist knowledge. This has impeded the progress of the programme and reduced its impact on the development of the children. Lord has suggested a few characteristics that every teacher working with children with autism should have, among them; a sustained belief in problem solving, the trying out of new approaches, and the ability to read and take account of new

research. Such characteristics need to be taken into consideration during the recruitment process.

6.   The lack of literature and educational materials in Arabic: One difficulty the programme faced in its initial stages was that the literature and educational materials on autism are all in English, which most of the teachers speak inadequately. Most teachers were, therefore, unable to gain much knowledge from the wide literature and audio-video materials available, while efforts to translate some of the basic literature put an extra burden on the programme's management.

Nevertheless, the positive impact of having such publications in Arabic was recognised due to its added value and uniqueness within the region. It was a means for disseminating knowledge and building relationships with other interested centres and schools. Furthermore, the selling of such publications brought a substantial revenue for the programme.

7.   Inadequate teaching manpower: The programme has faced difficulty in recruiting qualified teachers to teach the non-academic subjects - physical education, music and art. The programme turnover in those areas was high, basically because of a lack of indigenous teachers qualified in those areas. Since all such teachers were expatriates, their salaries were low compared to those of Kuwaitis in teaching occupations. Consequently, many became frustrated and changed their occupation frequently.

8.   Insufficient support services. Due to the country's limited social development, support services for the education of autistic children were not adequate to meet the expectations of the programme. The shortage was noticed mainly in the areas of behaviour management, family counselling, social services, parents' groups, diagnosis and assessment.

The complex nature of the difficulties experienced by individuals with

autism necessitates a wide-ranging assessment over a broad area of skills and needs. As a consequence, the lack of assessment capacity in the country has hindered the teachers' overall knowledge about the children. This has reduced the potential impact of educational intervention.

9. <u>Integration with home</u>. Because of its limited resources and huge demand for places, the programme has, for the time being, focused on core areas and delayed the implementation of other components, such as home visits, until a future date. As indicated in Chapter 8, many teachers felt the need to visit the homes of the children to better understand their environment, and to have a greater impact on the home.

The previous argument shows that implementing a programme for the education of autistic children may face challenges from different directions, including social attitudes, human resources, motivation and satisfaction, training and development, support services and their relationship with those affected, such as children, parents and teachers. Recommendations to overcome most of these, are made in the following section.

9.2 <u>**RECOMMENDATIONS**</u>

Though many recommendations could be made to enhance the effectiveness of such a comprehensive programme, in this section we will focus only on the substantial ones, including the following:

1. Strengthen the individualized programme
2. The formation of an inter-disciplinary team
3. Assessment capacity
4. Additional support services
5. The human resources and training programmes
6. The empowerment of parents, strengthening the relationship with them and improving feedback on the child's progress
7. Develop a comprehensive record-keeping system
8. Gradual integration or mainstreamaing
9. The enhancement of communication and better satisfaction
10. The enhancement of educational directives

11. Teacher participation and satisfaction
12. The enhancement of technical capacity and support
13. The enhancement of the curriculum and the focus on communication
14. The effectiveness of the evaluation process
15. The conceptualization of the programme's role in the future and the need for a larger facility
16. The enhancement of education and research on autism

1. Strengthen the individualized programme. As the phase of structured teaching is implemented successfully, Schopler suggested that the programme should 'strengthen the individualized programme within a central structure of coordination between home and school'. In this regard, the child's needs should be the focus of the programme. In addition, the most valuable outcomes of learning are those related to improvement in the way in which the children are enabled to think of themselves in relation to others. This means that the teacher will start from the child's position. As Lord said, 'a realistic approach based on the child's strengths and weaknesses is the only way forward'.

This means the continuing to emphasis on the effective implementation of I.E.P's. In order to overcome parental overexpectations, teaching targets chosen should be taken from the development profiles and be appropriate to the developmental age of the child. The programme may also designate an experienced teacher who will be fully occupied with supporting his colleagues efforts in this regard.

2. The formation of an inter-disciplinary team. One way to overcome the shortage of needed services is to form an inter-disciplinary team for the services desired. The composition of such a team will depend on the needs of the programme, which may vary from one year to another. However, as indicated by parents and teachers, basic members of such a team may include a speech and language pathologist, occupational and physical therapists and psychologists.

The role of a speech and language pathologist is to help teachers understand how they can best communicate and share information with the child, to carry out effective assessments of the child's ability and enable him/her to benefit from alternative communication systems. The pathologist could recommend speech therapy, which will help in developing the language and speech abilities of the child. The occupational therapist will focus on three major areas: fine-motor development, activities for everyday life and oral-motor skills, and specifically sensory input and integration. Oral-motor skills are needed for eating, drinking or speaking. The physical therapist will be responsible for the child's gross-motor development and evaluate the ability of each child, and will provide help for children who have problems in walking or other gross-motor skills.

Other team members, such as a behavioural psychologists, social workers, educators, nutritionists, music therapists, art therapists and vocational-rehabilitation counsellors will be part of the team on a case-by-case basis.

At a later stage, the team will plan its intervention by having a clear planning process when it will decide on the goals and objectives of the intervention, which will form the basis of the individualised service plan (ISP) for each child as indicated in the first recommendation.

The creation of a multi-disciplinary team is not an easy task, especially with such a diversified group of specialists. Nevertheless, within this context, the team will have an advisory role and its responsibility is to advise on different situations. As such, the composition of the team will differ according to the needs of the individual child. It is hoped that the worthy objectives of the team will combine to overcome any expected differences or conflicts among team members.

3.   Assessment Capacity: Since the programme will depend more and more on individualised programmes, enhancement of the assessment capacity is vital

for effective intervention. However, the challenge to the programme is that the assessment capacity as well as diagnostic capabilities are limited and inadequate in both countries. The awareness of these general difficulties may inform the teachers and encourage them to pay more attention to the performance of the children and develop their assessment skills. In addition, assessment needs to be seen as part of an ongoing process of identifying children's strengths and needs and developing these to enable the students to achieve their potential.

In addition to the PEP test as an assessment tool, Schopler suggested other developmental tests, including the Vinel and Adaptive Behaviour Scale. Though the researcher agrees that such tests will enhance the assessment process, especially at the stage of early diagnosis, their implementation will be gradual as technical capacity is increased. Until such a time, the programme will build its own internal assessment unit, and it will continue to depend on other external bodies.

Psychological tests to monitor the performance of the children could be another instrument for assessing the programme's effectiveness (Groden and Mann, 1991). Due, however, to inadequate assessment facilities, such an approach will not be utilized at this stage.

Since autism is defined as a developmental disorder, which changes with the age of the child, it is essential to employ a number of assessment instruments that can be used to test a child's level of improvement and to evaluate his progress. However, the employment of such tests will be gradual and in line with increasing the technical capacity for assessment.

The programme may envisage the future utilization of self-assessment through video-tape recording which will also record the achievement of the child and his progress over time.

4.   Additional support services. Mesibov suggests that providing the family with a full range of services, especially those which 'offer support and opportunities for them to meet and discuss their concerns', is essential for the effectiveness of the programme. Within the context of our evaluation, parents and teachers required (Chapter 8) regular contact, through scheduled sessions, with psychiatric and social workers to enable them to deal with their anxieties.

To cope with the increased stress during teaching, the programme should both adopt an institutional approach to stress management and encourage a personal one.   The institutional approach may include the development of a teacher's support system which could provide the services necessary to reduce stress in the working environment, such as a teachers' support group, counselling, etc. As suggested by Lord, 'it is important to have 'counselling and support', to say how difficult the task is, to recognise that there can be a transfer of 'helplessness' to staff'. The programme may help teachers to develop their own individual approaches to stress through stress-management training.

Residential services also seem to be in demand by many parents, especially those coming from outside Kuwait. In this regard, Schopler says it would be useful to have residential facilities available, especially at the older age level. This will be difficult to implement since the idea of native women working in the evening is not yet widely accepted in the society. However, the idea of residential services is worth considering as a future area for the programme expansion.

As indicated in this chapter, the programme may also utilise the services of speech and language pathologists, occupational therapists and physical therapists on a full-time basis, once they are available.

5.   The human resources and training programmes. The major challenge that faced the programme was inadequate human resources. However, this

challenge has given the researcher vital information about the required competencies of the teacher. The basic competencies for teachers' performance in a programme dedicated to autistic children, as articulated by the researcher, include the following:

1. The ability to deal with and manage a variety of situations, such as a child's aggressive behaviour and a parent's complaint;
2. Cooperation in different areas of the work with colleagues and staff;
3. Adherence to a code of ethics;
4. The ability to adapt to the educational development of the individual child utilizing educational techniques;
5. Time management and being results-oriented;
6. The achievement of the educational objectives of different levels;
7. An understanding of the literature;
8. The levels of preparedness for extra-curricular and other potentially difficult activities;
9. The ability to understand and present concepts and information;
10. The ability to run and manage the class;
11. The preparation of educational materials that support the class activities;
12. The ability to build a relationship with the child;
13. The utilization of different assessment tools;
14. Active participation in the different activities of the programme;
15. The planning and preparation of educational activities;
16. The preparation of technical and child progress reports;
17. Innovation of communication ideas and activities to achieve objectives.

These teacher competencies are vital for the programme's effectiveness since the available performance indicators developed by the MOE target general education teachers rather than specialized teachers of the autistic children. Nevertheless, basic teacher competencies in general education are also useful for the teachers educating children with autism. One of the problems of the programme in its first year was the lack of role model teachers whom the new teachers can imitate.

In order to spread knowledge about autism, the programme invites interested outsiders, such as teachers from the MOE, general education schools

and other interested institutions including private schools, to its training sessions.

Many teachers appreciated the usefulness of the training programme. They also indicated, however, the need to focus more on acquiring knowledge from this training, rather than simple attendance. The training programme also needs to be better timed, for example to be conducted in the morning to allow the teacher to fulfil her social obligations in the afternoon. Teachers should also be encouraged to implement what was learnt in a real setting. Furthermore, teachers could be encouraged by allowing to count their training programme as a credit towards a higher-education diploma or degree with a distant learning institute in England or the U.S.A.

Another area of training worth consideration is that of parents. Continued efforts in the areas of family training, including siblings, are necessary to maximise intervention efforts. Vance suggested having a parent-training programme on the management of children's behaviour. Lord indicated that 'Burn-out in parents often results in their inability to carry out an intensive programme'. Furthermore, a parent-training programme should be family focused because of the importance of identifying the strengths and the needs of the family and parental priorities.

6.   The empowerment of parents, strengthening the relationship with them and improving feedback on the child's progress. Since the parents play a major role in the child's growth and development, an effective parent-teacher working relationship and interaction is critical for the programme's effectiveness. In addition, effective communication between parents and the programme depends on the staff understanding the basic structure and needs of the family as well as the models for working with them.

Most teachers felt the need to have more frequent interaction with the parents, including home visits and parents' visits to the programme. This

indicates the need for greater carry-over of the child's progress and development into the home. Though important, as suggested by Groden and Dominigue (1991), home visits will be difficult to implement on a regular basis, due to the shortage of staff. Nevertheless, in justified cases, such visits may be authorised.

To further enhance the relationship with parents, a social gathering involving parents, children and teachers could be arranged periodically. In addition, the programme may design an open-evening activity where siblings can do their homework while the autistic child enjoys leisure time utilizing the available facilities.

As suggested by Schopler, parental awareness could be increased by having parent/professional group meetings with clear agendas. However, parents benefit most from professional input when they define their children's needs. In addition to the IEP, a school-parent session be organised at least once a month to provide continuous feedback about the child's programme.

The strength of the relationship with the parents is becoming increasingly vital for this programme. As the current trend nationally is toward greater empowerment of parents, the parental role in supporting and developing the programme will become more critical. This could be achieved by supporting the parents in formulating the parent-support group and subsidise some of their activities.

7.   Develop a comprehensive record-keeping system

One area of programme weaknesses is the lack of record-keeping capacity. In this regard, a comprehensive system of progress reporting should be established. This should be supported, as Lord suggested, by 'portfolios and records of achievement which show progress over time and emphasising that learning is still taking place although the steps may be small'. In the areas of reporting the child's progress, the teacher still needs to be educated and

trained in producing such feedback. Also the periodicity of reports as well as their format need to be modified. In order to enhance further the record keeping and progress reporting, three approaches may be envisaged:

i.   Outsourcing a record-keeping system from a well-recognised programme or centre with similar target group.

ii.   Installing a link between the record keeping and the implementation of the IEP. Lord suggested that record information should be presented to the head teacher or educational psychologist for analysis and discussion on a regular basis; at least fortnightly to begin with, and then monthly.

iii.   Intensifying the practical training programme on record keeping and progress reporting.

8.   Gradual integration or mainstreaming. The programme has implemented minimum mainstreaming. While a few of the children may join a mainstream school, the majority will continue to need a special curriculum in a special school. Some teachers felt the need to have more mainstreaming activities. As a first step to this end, the programme has provided a chance for interaction with the community and has introduced the children to non-autistic children and their parents.

The programme may also prepare high-functioning children to join ordinary schools. Up to now, such services have not been applied in Kuwait. Such services will be provided by the programme in future, after the necessary preparation has been made for the child, as well as for the children in the mainstream class he will be joining. In this connection, Lord has suggested that those children who will be placed in mainstreamed schools need to be supported by the programme.

Schopler suggested that mainstreaming should be implemented gradually according to 'the child's level of readiness and to the community's

understanding of autism' and 'should be based on individualized assessment'. Mesibov, agreeing with this view, indicated that the key to effective mainstreaming is 'to match the most appropriate programme (special-needs class, mainstream programme, full inclusion) to the individual needs of each child and family'. Evans suggested that a good practice in the area of mainstreaming is to allow for older school children (15+) to spend time in the special school.

Within the context of Kuwait, it would be more appropriate to start by having a special curriculum for autistic children. But as public attitudes towards integration become more favourable, gradually the curriculum of autistic children could be integrated with the national curriculum. Nevertheless, at this stage, such integration would be too problematic.

9.   The enhancement of communication and better satisfaction. There is a need to open the channel of communication more widely between the director, the headmaster and the head teacher and the rest of the teachers and staff. A vital aspect of communication is feedback. Moreover, it is essential that feedback be specific rather than general. Deciding the amount of feedback will depend on many considerations. One consideration is that feedback should depend on the capacity of the receiver, rather than the feelings of the sender, and should share information, not just offer advice. Consequently, the feedback should be descriptive rather than judgmental, provided in a timely manner and relevant to the receiver.

Another area worth consideration is to have sufficient communication with all concerned outside groups and organisations (parents, government agencies, community). In addition to IEP and school-parent sessions which enhance parent-partnership, a bulletin board would be published at least once a month to enhance further such mutual communication. Strengthening the parent-support group will serve both as a means of communication between the parents and the programme and as a tool to communicate the parents' needs

through the programme and relevant authorities. Though publicity and dissemination of information were adequate, future information activities will further enhance the image of individuals with autism, which will exert a positive influence on public perceptions.

To improve communication with the programme's teachers, many suggestions could be implemented. One is to hold monthly meetings where the director, the head teacher and the psychologist will meet all the teachers for two hours to discuss new developments within the programme, difficulties that face programme implementation and then open discussion for suggestions or complaints that the teachers feel it necessary to raise.

Another approach is to develop an open-door policy where any teacher with complaints or observations can approach the director directly, without going through the administrative hierarchy. Another suggestion is to have a monthly bulletin in which teachers can express their views and share their knowledge with others. This would serve as a forum to communicate their needs and interests, as well for the director to give them necessary guidance.

10. The enhancement of educational directives. One area of deficiency mentioned in Chapter 8 was the weakness of educational directives due to the fact that the programme was only recently established. In order to improve the effectiveness of the educational directives, the following measures are to be implemented:

i.   directives to issued by a single source, and after thorough review;

ii.   directives to be approved by an experienced head teacher,

iii.   the responsibilities of each of the director, psychologist and head teacher to be clearly defined;

iv.   intervention and directives to be planned from the beginning of the year,

v.   the directives to be in writing rather than in verbal form.

vi.   the exchange of experiences gained by teachers in the monthly staff meeting.

11.   <u>Teacher participation and satisfaction</u>. Teachers expressed indirectly the need for them to participate more in the decision making of the educational process. They suggested that staff meetings could be a suitable forum for such enlightened interaction. The forum could also be used for exchange of ideas and experience. It may focus on disseminating 'good practice', that is, analysing why successful teachers do what they do, what they actually do and how, and their contribution to achieving the objectives. They indicated the need to be consulted on major educational directives and to be invited to participate in the formulation of objectives. Furthermore, they suggested that more weight should be given to the teachers' opinion and suggestions.

In order to overcome weaknesses in those areas, a limited time for administrative matters will be allocated during the staff meeting, while the remainder of the meeting will focus more on technical aspects and on coaching and sharing the experiences of teachers.

In the area of job satisfaction, the programme should improve remuneration, have flexible working hours and establish a recess time for teachers which will lead to better job satisfaction. Furthermore, the programme management, due to the stressful nature of the job, may embark on a continuous encouragement process and incentive plan, and try to establish a trusting relationship with the teachers.

One approach to enhance the satisfaction of the teachers would be to expose their achievement as well as their progress with the child to different forums and educational bodies. Another approach to increasing their satisfaction would be to enhance their participation in the programme's preparation and implementation. This could be done by giving responsibility to each teacher for supervising certain components or activities of the programme. For example, a specific teacher could be responsible for co-curricular activities, another one for family activities or for mainstreaming activities. This would involve teachers more in the educational process, as well

as give them the feeling of ownership of the process. Also, as the teachers' experience increases, more weight will be given to their opinion in the process of decision making within the programme, through task forces and standing committees.

12. <u>The enhancement of technical capacity and support</u>. During the implementation of IEPs and due to the inadequate experience of the teachers, there was a huge need for continuous technical support and educational coaching. The training courses, though effective, should focus in the future on practical skills, such as report writing and assessment procedures. Both internal and external training courses could be utilized in this regard to enhance the technical capacity. Another approach to enhance the technical capacity, as suggested by Schopler, is to make use of experts, specialists and consultants as part of the structure of the programme.

A further way to enhance technical competence could be to engage in a management contract or consultancy arrangement with a well-known programme in the West, under which necessary guidance and supervision would be provided.

Since most teachers lack the necessary experience, staff technical support needs in the future to focus on a number of areas and could take many forms, including the following:

i.   To assign one teacher for the preparation of educational activities including suggestions for alternatives to certain games or activities. Since the nature of teaching is demanding, having an experienced teacher who could help in preparing the activities and suggest new ideas for play will relieve the class teacher and increase teaching effectiveness.

ii.   To increase the number of head teachers or supervisors available to assist the class teachers in writing and implementing the I.E.P. and guide them during class time.

iii.   The recruitment of a behaviour consultant (on a part-time basis) to assist the class teacher in solving children's behavioural problems.

13.   The enhancement of the curriculum and the focus on communication. The need to focus on communication within the curriculum is due to the fact that many of the teachers are not well trained in developing the communication abilities of the child, since most are new to the profession with no prior experience of teaching such children.

Schopler suggested that the emphasis should be on 'developing the communication system used by the children and can include gestures, body motions, objects, pictures, signing as well as verbal speech'. Concurring with this view, Evans suggested that, in general, any 'self-initiated communication other than spoken language should be encouraged'.

This raises the need to develop a special curriculum for autistic children in Arabic which focuses on the needs identified by the research. Such a task could be undertaken by establishing a committee to write the curriculum based on the recent experiences in the Gulf countries. Since it will be the first such curriculum written in Arabic, the composition of the committee is of extreme importance. It should include teachers of high calibre, parents and academicians, and practitioners from different disciplines. The outcome of the curriculum committee could be submitted to a consultative group composed of prominent foreign personalities in the field of autism. This will provide the curriculum with the breadth as well as the depth it needs.

14.   The effectiveness of the evaluation process. Since the evaluation process proved to be fruitful, it is suggested that the programme should undergo an evaluation exercise every year. Evans suggested that such an annual review, prepared by the managers of the programme, could be submitted to external auditors selected on the basis of their expertise. In addition, a consultant may be called to review certain areas or components, such as the curriculum,

communication, etc.

15. The conceptualization of the programme's role in the future and the need for a larger facility. Since one of the challenges that faced the programme was the narrow eligibility rules, there is a need to widen the eligibility range. In this regard, the current facilities will be inadequate because the rooms are small, there is no scope for expansion, and there are no training facilities for parents and teachers. There is a need, therefore, to conceptualize the future role of the programme. Due to the limited geographical area of the country, the programme could be envisaged as a centralized full-fledged facility, while classrooms for autistic children could be opened in ordinary schools outside the centralized structure. With this arrangement, the training of teachers and parents, as well as the provision of all other services, will be centralized, while teaching services will be delivered at the public-school level.

16. The enhancement of education and research on autism. One of the difficulties that faced the programme was the lack of adequate manpower to carry out the teaching duties. There is always, therefore, a need to initiate a dialogue with the institutions of higher education, such as Kuwait University, to establish a degree programme in special education. At present, the lack of such specialized training puts a huge burden on this programme as well as others dealing with the handicapped to prepare newly graduated teachers for the specialized tasks.

In addition, the programme faced difficulties during implementation due to the lack of sufficient literature, research and educational materials in Arabic. As indicated by Lord, 'it is important that parents and teachers have access to information and research about autism'. Kuwait University and its research centres in both the College of Education and the Medical College could be urged to contribute to promoting research into autism as well as preparing educational materials in Arabic. Such materials can benefit other Arab countries which are in desperate need of them.

In order to enhance awareness and interest in the Arab world, the programme could call for joint activities with other societies for handicap and autism. Activities such as the holding of general conferences and training workshops, and the creation of the necessary forum in the Arab world for continuous consultation and coordination could be implemented.

9.3 CONCLUSION

We have to bear in mind that the development of appropriate educational provision for autistic children evolved through a painfully slow and costly process. Early intervention and appropriate diagnosis is the exception rather than rule. The programme under evaluation is no exception. As such it was a challenge to design and implement such a scheme in a country which lacks many of the basic ingredients for it success.

In order to fine-tune the programme and enhance its effectiveness, certain recommendations have been made. This chapter has emphasised the importance of the interdisciplinary-team planning process and the individualization of the objectives. It has been indicated that maximum benefits will come only when the programme is carefully designed to meet individual needs, and its activities effectively implemented and enjoyed by all participants - children, families and staff. Although the educational needs of children with autism are universal, a major conclusion about the implementation of the programme is that, it has to be modified to take into consideration the unique cultural strengths, public social attitudes towards autism, level of services available, the willingness of human resources and the respective conditions of the country.

These major factors, though discussed separately to some extent, are obviously related to each other. For example, one critical factor for the further sustainability of the programme is to determine the conditions under which the sponsors and other educational facilities recognise the advantage of pooling resources to meet the needs of a small sector of the population so that the

level of services available depends, to some extent, on public attitudes towards autism.

The stated challenges indicate that educating an autistic child will always be a long, hard road, but now, at least, there is a reason to hope. The evaluations of the implementation of the programme indicate that, with commitment from all concerned, dedication to the objectives desired and sufficient resources, such challenges can be overcome. The ingredients for the success of the programme were the empowerment of all concerned, including the children, parents and teachers, the continued involvement of the sponsors and the focus on the child's needs. An emphasis on awareness and partnership proved to be a fruitful strategy.

This programme is the first step toward coordinating efforts among governmental and non-governmental institutions, as well as individuals, to implement a comprehensive educational programme for children with autism. It is a pioneer programme which encourages native females to carry out the teaching responsibilities for autistic children. Due to similarities in culture and challenges, other oil rich countries can benefit, after necessary modification, from establishing similar, if not better programmes, in their countries. Our aim will always be to have complete partnership with all concerned to build a brighter future for autistic individuals everywhere in the world.

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LIST OF APPENDICES

1. Questionnaire administered to parents to assess their children's needs

2. Names of Referrees for the Questionnaires

3. English Translation of Interview Questionnaires for Parents

4. English Translation of Interview Questionnaires for Teachers

5. A set of detailed questions submitted to a group of experts to evaluate the programme effectiveness.

6. General questions that were used by the researcher to evaluate in a systematic manner the programme effectiveness.

7. Reports about 13 subjects for the year 1996-97

A. INFORMATION ABOUT THE PARENTS

FATHER - EDUCATIONAL STATUS ☐ Below High School ☐ University Degree
☐ High School ☐ Graduate Degree

FATHER - AGE ☐ Below 30 ☐ 30-40 ☐ Over 40

MOTHER - EDUCATIONAL STATUS ☐ Below High School ☐ University Degree

☐ High School ☐ Graduate Degree

MOTHER - AGE ☐ Below 30 ☐ 30-40 ☐ Over 40

B. INFORMATION ABOUT THE CHILD

- AGE ☐ 0-18 months ☐ 18 months-3 years ☐ 3-5 years
☐ 5-7 years ☐ 7-11 years ☐ 11-15 years

- WAS DIAGNOSED AS ☐ In Kuwait ☐ Outside Kuwait ☐ Both
AN AUTISTIC CHILD

- AGE AT WHICH HE/SHE ☐ Less than 5 years ☐ 5-8 years ☐ More than 8 years
WAS DIAGNOSED

C. INFORMATION ABOUT THE PROGRAMME HE/SHE ATTENDED

- LOCATION ☐ In Kuwait ☐ In U.K. ☐ Arab Country ☐ Other Countries

- DURATION ☐ Less than 1 year ☐ 1-3 years ☐ More than 3 years

- PROGRESS ☐ Excellent ☐ Satisfactory ☐ Poor

D. CHILD'S NEEDS

(Based on your child's needs, please indicate the importance of addressing the following in the programme)

	Strongly agree	Agree	No opinion	Disagree
1) The development of fine & gross motor skills (such as throwing/ holding/writing, etc.)	☐	☐	☐	☐
2) Training the child to sit down to study for longer periods	☐	☐	☐	☐
3) Training to display appropriate behaviour in various situations	☐	☐	☐	☐

		Strongly agree	Agree	No opinion	Disagree
4)	Training to respond appropriately to audio-visual stimuli	☐	☐	☐	☐
5)	Toilet training for your child	☐	☐	☐	☐
6)	Training to eat in acceptable manner	☐	☐	☐	☐
7)	Training to write basic vocabulary	☐	☐	☐	☐
8)	Training to use a suitable communication method (Verbal or Nonverbal that suits his/her needs)	☐	☐	☐	☐
9)	Modification of unacceptable behaviour, such as aggressive behaviour	☐	☐	☐	☐
10)	Development of independent skills	☐	☐	☐	☐
11)	Development of functional skills for future use in the community	☐	☐	☐	☐
12)	The enjoyment of leisure time activities and the company of others	☐	☐	☐	☐

E. PROGRAMME IMPLEMENTATION

		Strongly agree	Agree	No Opinion	Disagree
1)	The programme should be conducted in English	☐	☐	☐	☐
2)	The programme should be conducted in Arabic	☐	☐	☐	☐
3)	The programme should be conducted in both Arabic and English	☐	☐	☐	☐
4)	The programme includes physical education	☐	☐	☐	☐
5)	The programme includes music lessons	☐	☐	☐	☐
6)	The programme includes art lessons	☐	☐	☐	☐
7)	The programme includes lessons to teach basic prayers and reciting short verses from the Holy Quran	☐	☐	☐	☐
8)	The programme should include outdoor visits to familiarise the children with their environment	☐	☐	☐	☐
9)	Daily or weekly progress reports should be sent to the parents about their child's development	☐	☐	☐	☐

F. SUPPORT SERVICES YOU EXPECT THE PROGRAMME TO OFFER IN ADDITION TO THE CHILD'S INDIVIDUAL EDUCATION PLAN

		Strongly agree	Agree	No opinion	Disagree
1)	Parent awareness programme (lectures/conferences/training courses, etc.)	☐	☐	☐	☐
2)	Periodic parent meetings to discuss their children's needs, problems, etc.	☐	☐	☐	☐
3)	Entertainment programmes after school hours or during vacations	☐	☐	☐	☐

APPENDIX 2

NAMES OF REFEREES FOR THE QUESTIONNAIRES

1. Dr. Mohammed Rafki, Evaluation Centre, Kuwait University.

2. Dr. Ibrahim Al-Khulaifi, College of Education, Kuwait University.

3. Dr. Roland Brown, Sultan Learning Institute, Kuwait.

4. Mrs. Dalal Al-Masha'an, General Secretary of Special Education Council, Ministry of Education, Kuwait.

5. Prof. Gary B. Mesibov, Director, TEACCH Programme, University of North Carolina at Chappel Hill, USA.

6. Specialist Rana Nasser, Centre for Child Evaluation and Teaching, Kuwait.

APPENDIX 3

This is an English translation of the Interview Questionnaire for parents concerning the planning, implementation and evaluation of an educational programme for children with autism. The original questions are in the Arabic language.

Purpose of Interview

The purpose of the interview is to obtain in-depth information and views on the planning, implementation and evaluation of an educational programme for children with autism in Kuwait and Saudi Arabia. The outcomes of such an exercise will be used to indicate the positive and negative aspects of each component of the programme. The current programme will be reformed to satisfy the demands of the parents as well as of the teachers. This exercise is part of academic research presently under preparation by the researcher. Your cooperation and valuable comments will be highly appreciated.

Clarifications

1. What is contained in this interview shall be utilized only for academic research purposes.

2. The interview shall be recorded to enable the researchers to analyze carefully its contents and to guarantee precision in understanding meanings and ideas. The researcher will destroy the recording or return it, upon request, to the person interviewed.

3. The researcher shall not mention the name of the person interviewed during the research, if so desired.

4. The following questions have been prepared to ensure the effectiveness of the interview. At the same time, they leave room for further elaboration, if necessary.

Questions

*1. The I.E.P. sessions were a useful tool?
(Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
If so, in what areas:
- It gives me a clear vision about the expected role toward the child
- It provides me with assurance about the seriousness of the programme and encourages me to contribute to the education of the child
- What negative aspects/difficulties have you noticed during the implementation of I.E.P.
- Any other comments.

*2. The curriculum subjects satisfy the needs of the child?
(Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
- What components of the curriculum did not satisfy you?
- What is your suggestion to improve it?
- Any other comments.

3. The Parents' Support Group was a useful instrument?
(Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
- Do you have any suggestion to improve it? increase or decrease the number of meetings? reorient the way the discussion is run?
- Any other comments or opinions in this regard?

*4. Support services were helpful in achieving the desired educational goals?
(Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
- What support services do you consider the most beneficial? please be specific.
- What support services were least beneficial? please specify.
- Any other comments or opinions in this regard.

*5. The programme's teaching environment was supportive and cooperative?
(Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
- What are the positive aspects of the teaching environment in the programme? cooperation among staff, love and care, equitable treatment, good coaching and appropriate directives?
- What are the negative aspects of the teaching environment?
- Any other comments or opinions in this regard.

*6. The co-curricular activities such as outdoor visits are rich and varied, and enhance the life of the child?
(Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
- What are the most beneficial co-curricular activities for the child?
- What are your suggestions for the new co-curricular activities in the future?
- Any other comments or opinions in this regard.

7. I feel that the programme has a positive relationship with us as parents.
(Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
- What are the factors that contribute to such a relationship?
- What are the main areas for the parents' complaints?
- What is your suggestion to enhance such a relationship?
- What is the role of parents toward the child and the programme?
- Does the educational programme of the child end with the end of the school day?

*8. The programme provides adequate feedback about the progress of the child?
(Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
- Are the components of the reports appropriate?
- Is the periodicity adequate?
- What is your suggestion for improvement?
- What is, in your opinion, the role of the parents in the follow-up of the progress of the child?
- Any other comments or observations in this regard.

9. The programme provides me with sufficient knowledge and information which enables me to contribute to the welfare of my child?
(Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
- Did you contribute to the dissemination of information about autism for those who demand it?
- Any other comments or observations in this regard.

*10. In general, the feeling is that the child is developing satisfactorily.
      (Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
      -     In what areas was the programme successful in developing the
            child?
      -     In what areas was the programme not able to develop the child?
      -     Any other comments or observations in this regard.

I will appreciate your providing me with any other comments and observations that were not covered and that you think are worthwhile mentioning.

In conclusion, the researcher would like to thank you for your cooperation in holding this interview which it is hoped will be a means of evaluating the current programme, so that it can be more effective and successful in the future.

This is an English translation of the Interview Questionnaire for teachers concerning the planning, implementation and evaluation of an educational programme for children with autism. The original questions ere in Arabic.

Purpose of Interview

The purpose of the interview is to obtain in-depth information and views on the planning, implementation and evaluation of an educational programme for children with autism in Kuwait and Saudi Arabia. The outcomes of such an exercise will be used to indicate the positive and negative aspects of each components of the programme. The current programme will be reformed to satisfy the demands of the parents as well as those of teachers. This exercise is part of an academic research project presently under preparation by the researcher. Your cooperation and comments will be highly appreciated.

Clarifications

1. What is contained in this interview shall be utilized only for academic research purposes.

2. The interview shall be recorded to enable the researchers to analyze carefully its contents and to guarantee precision in understanding meanings and ideas. The researcher will destroy the recording or return it, upon request, to the person interviewed.

3. The researcher shall not mention the name of the person interviewed during the research, if so desired.

4. The following questions have been prepared to ensure the effectiveness of the interview. At the same time, they leave room for further elaboration, if necessary.

Questions

*1.	The I.E.P. sessions were a useful tool?
(Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
If so, in what areas:
-	It gives me a clear vision about the expected role toward the child
-	It provides me with assurance about the seriousness of the programme and encourages me to contribute to the education of the child.
-	What negative aspects/difficulties you have noticed during the implementation of I.E.P.?
-	Any other comments.

2.	Teachers, Headmasters and Directors are actively involved in planning and reviewing the programme?
(Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
-	In what areas were they more involved for each of Teachers, Headmasters and Directors?
-	In what areas was their involvement limited for each of Teachers, Headmasters and Directors? why?
-	Any other comments or observations in this regard.

3.	The programme's educational goals and objectives have been established and are well-known?
-	What problems were encountered during the process of defining the educational goals? How were the staff informed about such goals?
-	Any other comments or observations in this regard?

4.	The learning objectives have been met
(Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
-	What learning objectives were not met? what challenges did you face during their implementation?
-	What is your suggestion for improvement?
-	Any other comments or observations in this regard?

*5.   The curriculum subjects satisfy the needs of the child?
      (Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
      -    What components of the curriculum did not satisfy the need of the child?
      -    What is your suggestion for improvement?
      -    Any other comments.

6.   Teaching methods have been defined?
      (Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
      -    What are the methods needing to be defined further?
      -    What is your suggestion for improvement?

7.   The training programme is effective in enhancing the teachers' abilities?
      (Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
      -    Do you have any suggestions to improve it? increase or decrease the number of meetings? reorient the way the discussion is run?
      -    Any other comments or opinions in this regard?

8.   The instructions and directives were adequate?
      (Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
      -    Were there any difficulties in understanding and implementing such directives? What are your suggestions for improvement?
      -    Any other comments or observations?

9.   Faculty meeting was a useful gathering for enhancing the teacher's experiences and as a further exchange of productive ideas?
      (Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
      -    Are there any ideas to improve it? increase or decrease it? change the way the discussion is conducted?
      -    Any other comments or observations?

*10. Support services were helpful in achieving the desired educational goals?
      (Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
      -    What support services do you consider the most beneficial? please be specific.
      -    What support services were least beneficial? please specify.
      -    Any other comments or opinions in this regard.

11.   Working as a teacher in the programme gives me satisfaction?
      (Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
      -     What are the components that increased job-satisfaction:
            remuneration? flexibility in work schedule? decrease in workload?
            more freedom to the teachers in conducting their work?
      -     Any other observations or opinions in this regard?

*12. The programme's teaching environment was supportive and cooperative?
      (Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
      -     What are the positive aspects of the teaching environment in the
            programme: cooperation among staff, love and care, equitable
            treatment, good coaching and appropriate directives?
      -     What are the negative aspects of the teaching environment?
      -     Any other comments or opinions in this regard.

*13. The co-curricular activities, such as outdoor visits, are rich and varied, and
      enhance the life of the child?
      (Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
      -     What are the most beneficial co-curricular activities for the child?
      -     What are your suggestions for new co-curricular activities in the
            future?
      -     Any other comments or opinions in this regard.

14.   I feel that the programme has a positive relationship with the parents?
      (Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
      -     What factors contribute to such a relationship?
      -     What are the main areas of parents' complaints?
      -     What is your suggestion to enhance such a relationship?

*15. The programme provides adequate feedback about the progress of the
      child?
      (Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
      -     Are the components of the report appropriate?
      -     Is the periodicity adequate?
      -     What is your suggestion for improvement?
      -     Any other comments or observations in this regard.

16. The programme provides me with sufficient knowledge and information which enable me to contribute to the education of the child?
     (Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
     -    Any other comments or observations in this regard?

*17. In general, the feeling is that the child is developing satisfactorily?
     (Agree strongly/Agree/No opinion/Disagree/Strongly disagree)
     -    In what areas was the programme successful in developing the child?
     -    In what areas was the programme not able to develop the child?
     -    Any other comments or observations in this regard.

I will appreciate your providing me with any other comments and observations that were not covered and you think worthwhile mentioning?

In conclusion, the researcher would like to thank you for your cooperation in holding this interview, which it is hoped will be a means of evaluating the current programme, so that it can be more effective and successful in the future.

question.ap4

A SET OF DETAILED QUESTIONS SUBMITTED TO A GROUP OF EXPERTS TO EVALUATE THE PROGRAMME'S EFFECTIVENESS

To obtain in-depth information and views on the designing of an educational programme for autistic children in Kuwait, the following enquiries were prepared and formulated in order to have a constructive discussion.

From your exposure to the Kuwait Autism centre what is your opinion on the following questions in the following areas:

1. General

1.1   Are the current and used techniques for diagnosing and assessment appropriate and adequate?

1.2   Are the available resources (both material and human) adequate and sufficient for implementation of the educational programme?

1.3   Are the supporting services and facilities adequate for efficient implementation of the proposed educational programme (vocational, medical, recreational, transportation, residential facilities) ?

1.4   Is there sufficient expertise and institutional support necessary for such a programme?

1.5   What is your assessment of the level of public awareness and attitudes towards autism and the need for such a programe to address these issues within the educationalist, public and parental arenas?

1.6   Are there any other issues worth elaborating or needing special attention -from your perspective - in the implementation of an educational programe of autistic children? Please specify.

2. In the area of programme design

2.1   What is your assessment of the major programmes currently available in the West?   What are the strengths and weaknesses - from your perspective - of each programme?   Which is more suitable (or its major components) for Kuwait?

2.2   If a programme for autistic children needs to be developed for Kuwait, what are the general principles and guidelines for its development? What should be its major goals?   How can we assess the needs of the children and their families?

2.3   What teaching strategy(ies), i.e. behavioural management, is suitable for the country?

2.4   Do you think that the programme for autistic children in Kuwait should reflect their unique cultural and environmental situation?   If so, what are the areas of emphasis (social values, language, religion)?

2.5   What are the most important factors influencing the quality of the designed programme -

Variables related to   teachers (e.g.teacher training)
     "   "   educational environment (e.g. educational
                          setting of programme)
     "   "   students being served (e.g. size of case load)

2.6   What is in your opinion the basic content of the programme and its phiolosophical base?   Should the programme reflect the philosophy of Islamic beliefs and attitudes, cultural values?   Should it allow for the emergence of awareness and use of the social, linguistic and cultural context of the country when formulating educational plans?

2.7 What are the most crucial factors related to teachers to be considered in the design of the programme: teacher profile, educational background, training teachers to promote reciprocal interaction between autistic children and the typical classmates, highly structured, skill-oriented teaching, teachers' use of class time, learning and enthusiasm?

2.8 In your view, what are the most critical factors related to autistic children to be considered in the design of the programme. i.e. social communication, attachment, behaviour, social behaviour, toilet training, depression and social adjustment, reinfocement, focus group, age range, intensive one-to-one and small group sessions?

2.9 What is your assessment of the most imporant factors to be considered in the programme design relating to autistic children's support facilities or related services (teachers manual, resource specialist, designated instructions and services, resource room)?

2.10 What is your assessment of the different approaches used in reaching students with autism: creative music therapy, facilitated communication, art therapy, play, rigorous physical education, outdoor education? What areas (components) should we emphasise in our programme?

2.11 In your opinion what areas should we emphasise concerning language problems and educational policy, verbal learning, language acquisition and learning, self-initiated verbalization, sign language? Should the programme be presented in one language (Arabic or English) or both?

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3. In the area of supporting facilities and services

3.1　In your opinion what are the essential factors that should be considered in the programme design relating to parents and family: parents expectations, training parents, family needs, support group, extensive in-house behaviour-management training, depression and stress, coping, functioning, family satisfaction, siblings (adjustment and performance at home and school)?

3.2　What is your view about the applicability of the concept of mainstreaming (total or partial mainstreaming) vs. non-mainstreaming?

4. In the area of implementation of the programme

4.1　What are, in your assessment, the major ingredients and issues that should be observed during implementation of the programme?

4.2　How can we analyze the extent to which the intrinsic and extrinisic factors are reflected in the programme?

5. In the area of evaluation of programme

5.1　What are the tools/activities that should be employed to assess the effectiveness of the programme?

5.2　How can we measure student, parent and teacher satisfaction with the programme?

5.3　How can we evaluate the availability and adequacy of certain support services?

question.ap5

GENERAL QUESTIONS THAT WERE USED BY THE RESEARCHER TO EVALUATE IN A SYSTEMATIC MANNER THE PROGRAMME EFFECTIVENESS

These enquiries were developed from Reynolds et al, 1989; King et al, 1987; Rogers and Badham, 1992.

A. Programme Context and History

How many and what sorts of children with autism does the programme affect? What are the characteristics of the children with autism that will be admitted?

What does (do) the programme site(s) actually look like? What are the physical surroundings and materials? What are the key actors in programme activities like? How do they feel about the programme?

How many classes in the programme? What IS THE pupil-teacher average?

What is the financial status of the programme? What is the per pupil cost of education? What accountability issues affect the programme?

How did the programme get started? Who was instrumental in getting it programme off the ground? What were their motivations and intentions? How did the idea develop to the point of a complete programme? Who motivated the programme's development? Who designed, developed, or chose it? By what authority?

What problems were encountered in gaining acceptance of the programme by teachers, administration, parents, or the community? How were these solved?

Was a formal or informal *needs assessment* of children conducted prior to beginning the programme?

How were the needs of children identified? Through a survey?

Were the views of potential participants solicited? What were these opinions?

What *specific* needs guided programme development? What priorities were determined? How were these needs translated into goals or objectives for the programme?

B. Programme Rationale, Goals and Objectives

Is there a written rationale for the programme? That is, why do the programme's planners feel that the various programme materials and activities they have selected are important? What is the implicit rationale behind the programme? Are staff and participants aware of this?

What generally was the programme designed to accomplish? What underlying educational goals were set? How and by whom?

Did programme staff use the established needs or priorities as a basis for developing objectives? Did staff select objectives from other programmes?

Is the purpose of the programme clear and does it have a well-formulated objectives orientation?

What was the review process for the objectives before their inclusion in the programme? Are the objectives realistic?

Do the objectives focus on programme activities (what the programme will do), on intended outcomes (what children will learn) or on both?

C. Personnel and Administrative Matters

What kinds and numbers of staff took part in the programme? How can their roles be best described: instructional versus non-instructional? Administrative, instructional, or support staff? Is an organizational chart available? Are written job descriptions available? Do they accurately reflect what people did?

Are staff members required to have special backgrounds or credentials? What procedures were used for selecting the staff? Were any positions difficult to fill? Why? What procedures were used for training the staff? Was the training adequate?

What special problems have been addressed in developing and maintaining staff morale? How much staff turnover has there been? For what reason?

How do parents or other outside individuals participate in the programme?

What period of time is covered by these funds? What has been the total cost of implementing this programme? What are the major cost items? What is the per pupil cost of the programme? How does the per pupil cost of the programme compare with per pupil cost at various other programmes?

From what sources have programme funds been obtained? What proportion of costs are paid by the sponsor, by grants from the government? Was the programme developed with a specific funding source in mind? What proportion of monies is made up of funds specifically granted for operating the programme?

What estimates could be called start-up and what portion could be called running costs?

Are resources sufficient, including human, material and trainee?

What are the costs of acquiring, maintaining, and operating the programme plan? What has been the cost of developing materials?

How is the programme administered? What offices or roles have been created or expanded?

D. Planned Programme Characteristics

How many children have been served by the programme during the evaluation?

Does the programme have a well-defined curriculum? Is it a structured programme designed to serve a diversity of student abilities?

If a programme plan has directed the implementation, what is the programme supposed look like?

If a theory, philosophical stance, model for schooling, or expert opinion has directed the implementation, what programme features does this orientation require you to examine? Why?

Have some components been dropped or modified? Has the programme defined the target group for whom it was designed? Have the crucial activities in fact occurred?

What materials does the programme use and how? Which have been most often used? Seldom used? Never used? What evidence is there that the materials are useful?

Do the materials seem to fit the programme's goals and objectives?

What other resources (physical facilities, transportation) have been used to support the programme and who provided them?

E. Programme Activities

Does the administration display commitment to the objectives; display initiative highly supportive of staff, encourage others to accept responsibilities?

Is staff stability high, with minimum turnover, maturity and professionalism?

Does a spirit of cohesion among staff and acceptance of programme's purpose and values, students and parents exist?

How do the activities fit the programme's stated goals and objectives?

In what activities have participants in the programme taken part?

What measures have programme staff taken to motivate children to participate in activities? Were these methods planned in advance? Do they seem to work?

What do the critical activities that make up the programme look like in practice? Are sources of information available (e.g. information comments)?

How many extra-curricular activities outside the classroom were used? What was the effect of such activities?

What evidence is there that programme activities are interesting and valuable to children and teachers?

What is included in a typical day's or week's schedule of activity for the programme participants? How much time is devoted to various activities? What time of day do these occur? In what sequence do participants experience them?

How do participants receive feedback about their individual progress?

How are parents or supervisors informed about their children's progress? For example, have parent-teacher conferences been held? Have parents been invited to observe their children in class? What parental advice has been sought in planning individual children's activities?

If problems with parents have affected the programme, what measures, if any, have been taken to remedy them?

What conclusions about the extent or quality of programme implementation have you been able to draw from the examination of programme activities?

REPORT ABOUT SUBJECT 1 FOR THE YEAR 1996-97

CLASS: 5

NO.	Skills	Level of subject at the beginning of the year	Level of subject at the end of the year
01	Communications	- Communication through vision - Uses crying to express desire or need	- Still crying but with less intensity - He asks hand of the teacher during play sessions (body communications)
02	Social skills	He accepts people around him	- He accepts people more without fear - He seeks the participation of the teacher - Stands in the morning exercise - He participates with other children
03	Fine Motors	Fine motors are weak and he needs training	- He holds a big toy tightly - He holds small objects - He starts playing with clay - He plays a musical instrument - He strings the beads
04	Gross Motors	Walks correctly, rides a bike, but needs training to get off. He can climb	- His gross motors have improved - He started catching the ball - He can take off his clothes
05	Academic skills	He lacks academic skills	- He matched the circle puzzles with the assistance of the teacher
06	Routine and order	He lacks routine and order	- He knew his daily schedule - He used the schedule cards - He knew the class routine and schedule

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REPORT ABOUT SUBJECT 2 FOR THE YEAR 1996-97

CLASS: 3

NO.	Skills	Level of subject at the beginning of the year	Level of subject at the end of the year
01	Communications	- He uses body language - He uses it to refuse or request	- He uses more body language - He uses it to request assistance
02	Social skills	He occupies himself with toys for a while	- He waits in line - He tries to participate with others in playing
03	Fine Motors	- Very weak - He can't open a box or hold a pen	- He holds objects in the right way - He opens the box in the usual manner - He can hold the paper and scissors and cut paper - He can string the beads
04	Gross Motors	Jumps, runs	- He walks in a straight line (with teacher's assistance) - Catches the ball - Jumps if requested - Climb the ladder
05	Academic skills	- Weak in academic skills (reading, writing, matching) - The ability to design with shapes	- Distinguishes two colours (red and yellow) - Matches four colours (orange, blue, rose and yellow) - Trying to hold a pen and write in straight line - He erects puzzles of six pieces - Matches shapes
06	Routine and order	Difficulty in understanding routine	- Understands the routine (especially from right to left) - Order is established - Follows the work system (from right to left)

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REPORT ABOUT SUBJECT 3 FOR THE YEAR 1996-97

CLASS: 3

NO.	Skills	Level of subject at the beginning of the year	Level of subject at the end of the year
01	Communications	- Lacks verbal communication - No eye contact	Continued to be non-verbal
02	Social skills	Playing alone	Participates with other children
03	Fine Motors	The ability to grasp objects was modest	- Holds objects tightly - String the beads - Ties shoe laces
04	Gross Motors	Has modest abilities	- Walks in straight line - Able to jump - Climbs the ladder
05	Academic skills	Ability to hold the pen is modest	- Classifies two colours - Matches objects - Holds the pen tightly and use purposefully - Completes the missing shape
06	Routine and order	- Refuses to sit on the chair - Always wants to leave the class - Tries to escape during transition period	- Understands the class schedule - Follows the routine, especially from right to left

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REPORT ABOUT SUBJECT 4 FOR THE YEAR 1996-97

CLASS: 4

NO.	Skills	Level of subject at the beginning of the year	Level of subject at the end of the year
01	Communications	- Communication is good - Asks for help through body language	Says word 'father' during meal and class work
02	Social skills	Plays with teacher and imitates her actions	Likes to play and participate with other children
03	Fine Motors	- String the beads - Puts pieces of puzzles together and correctly - Instals 2 cubes	- Holds the pen and writes in straight lines - Instals 4 cubes
04	Gross Motors	Holds the ball	Holds the ball with precision
05	Academic skills	- Draws straight line - Instals cubes	- Colour matching - Classifies objects
06	Routine and order	- Follows the schedule with resistance and crying - Waits for the teacher's directives	- Understands the daily schedule - Follows the schedule independently without resistance and crying

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REPORT ABOUT SUBJECT 5 FOR THE YEAR 1996-97

CLASS: 7

NO.	Skills	Level of subject at the beginning of the year	Level of subject at the end of the year
01	Communications	- Uses body language by holding the hand - Uses vision	- Uses sign to object - Uses the word "No"
02	Social skills	- Accepts others - Follows the simple orders - Plays alone	- Likes the participation of teacher and the children
03	Fine Motors	- Holds small objects	- Ability to hold small objects - Stringing the beads
04	Gross Motors	- Walks in balance, kicks the ball, throws the ball to others	- Gains the jump skill
05	Academic skills	- The ability to match pictures and shapes	- Writes his name without dots
06	Routine and order	- Lacks the understanding of the routine and resists it	- Follows the routine and the schedule and moves from one class to another class

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REPORT ABOUT SUBJECT 6 FOR THE YEAR 1996-97

CLASS: 1

NO.	Skills	Level of subject at the beginning of the year	Level of subject at the end of the year
01	Communications	Able to communicate by object schedules	Ablity to communicate through pictures and words is enhanced
02	Social skills	Able to accept older people	In addition to adults, now he accepts other children
03	Fine Motors	Strong ability in catching the ball and stringing the beads	Impressive improvement in unscrewing bolts and cutting fruits
04	Gross Motors	Strong ability in running and jumping	Improvement in riding the bicycle
05	Academic skills	Able to hold the pen and write in straight line	Able to write his name and identify colour and numbers
06	Routine and order	Able to follow schedule and routine	Able to follow the routine through pictures and his own individual schedule

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REPORT ABOUT SUBJECT 7 FOR THE YEAR 1996-97

CLASS: 2

NO.	Skills	Level of subject at the beginning of the year	Level of subject at the end of the year
01	Communications	- Uses body language - Resists through crying	- Continues to use body language - Uses verbal communication to go to bath or seeking water - Holds the teacher's hand in taking meals
02	Social skills	- Accepts others and does not mind hugging - Lacks participation with others	- Plays with others - Shares his toys with other children
03	Fine Motors	Able to hold objects	- Able to open and close buttons - Able to squeeze tooth paste - Unscrew bolts - Increased ability to hold and use the pen
04	Gross Motors	- Ability to run and jump is strong - Not able to throw or catch the ball	Modest improvement in dealing with the ball
05	Academic skills	Able to match colours, pictures, numbers and shapes	- Able to identify and name the colours - Identifies animals and imitate their voices - Matches objects to their use - Identifies name and his pictures - Identifies days of the week - Classifies objects according to colour and size
06	Routine and order	Needs a lot of efforts in routine and order skills	- Moves to his schedule using a transition card - Understands the object schedule - Follows the teacher's orders and instructions - Able to sit on the chair for a longer period

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REPORT ABOUT SUBJECT 8 FOR THE YEAR 1996-97

CLASS: 6

NO.	Skills	Level of subject at the beginning of the year	Level of subject at the end of the year
01	Communications	- Responds to calling her name - Uses body sign for any request - Shakes the body for any refusal	- Trained on communication card - Able to control anger
02	Social skills	- Likes children but fears to approach them - Limited participation with other children	- Acceptance of other children increased - Increased participation with teachers and other children
03	Fine Motors	Weak - no concentration	Needs more training, however her concentration and grabbing of objects became stronger
04	Gross Motors	- Gross motor is good - Ability to balance is good	- Better balanced movement - Throws and catches ball - Holds and leaves objects
05	Academic skills	- Resists holding a pen - Needs to regain the lost academic skills	- Skills for reading and counting improved - Better holding of the pen
06	Routine and order	Good routine but needs physical assistance most of the time	Depends on herself totally during class schedule and outside it with teacher's supervision

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REPORT ABOUT SUBJECT 9 FOR THE YEAR 1996-97

CLASS: 4

NO.	Skills	Level of subject at the beginning of the year	Level of subject at the end of the year
01	Communications	- Sign communication - Uses crying and yelling	- Grabs the teacher's hand - Sign communication
02	Social skills	Plays alone with no children around	Plays alone with children around
03	Fine Motors	- Weak in grabbing objects - String beads	- Puts 3 pieces of puzzles together and correctly - Erects 4 cubes
04	Gross Motors	Throws the balls and catches it	- Holds the plastic cubes - Holds small balls
05	Academic skills	- Strings the beads by himself - Matches the colour by sign communication with the teacher's assistance	- Matches two colours by himself (red and blue) - Erects cubes
06	Routine and order	Moves to the activities of the schedule with teacher's assistance	- Moves to the meals by himself - More familiar with the class schedule

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REPORT ABOUT SUBJECT 10 FOR THE YEAR 1996-97

CLASS: 6

NO.	Skills	Level of subject at the beginning of the year	Level of subject at the end of the year
01	Communications	- No verbal communication - Grabs hand in case he needs something	Trained on communication card
02	Social skills	- Cooperates with others - Able to organise the class	Avoids participation with other children
03	Fine Motors	Able to string the beads (small and large)	- Control of his muscles is accurate and fine - Able to cut and stick objects
04	Gross Motors	- Walks in straight line - Able to jump	- Able to catch and throw the ball - Rides the bike correctly
05	Academic skills	Matches pictures and colours	- Holds the pen and writes his name - Recognises and writes the numbers 1 and 2
06	Routine and order	- Follows the schedule - Follows the school order	Able to follow the schedule independently

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REPORT ABOUT SUBJECT 11 FOR THE YEAR 1996-97

CLASS: 7

NO.	Skills	Level of subject at the beginning of the year	Level of subject at the end of the year
01	Communications	- Makes verbal communication when needs something - Grabs teacher's hand in case of need	- Communicates through pictures - Better verbal communication
02	Social skills	- Plays alone - Does not accept other children - Accepts the teachers	No improvement made due to the development at her age
03	Fine Motors	Able to cut paper	Improved eye-hand coordination, especially during tailoring sessions
04	Gross Motors	- Needs assistance to throw the ball - Other large muscles are fine	- Throws the ball independently - Able to walk on the stand with balance
05	Academic skills	- Modest ability of matching with teacher's assistance - Modest in holding the pen and writing on dots	- Improving in matching skills - Connects straight lines from the points
06	Routine and order	Following the schedule and movement from one place to another is done with assistance	Follows the schedule more independently

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REPORT ABOUT SUBJECT 12 FOR THE YEAR 1996-97

CLASS: 2

NO.	Skills	Level of subject at the beginning of the year	Level of subject at the end of the year
01	Communications	- Body language and use of sign - Verbal communication when he needs something	Uses the word "give me" and uses it in two-word sentence: "give me juice"
02	Social skills	- He likes to be with others - Rejects holding or hugging - Participates with others in their play	- Accepts hugging and holding - Accepts his colleagues more in the class - Says 'good morning' - He participates with other children in play
03	Fine Motors	Strong in disabilities and able to string the beads, open the buttons, grab objects	- Holds the pen more tightly and links straight lines between the points - Able to use scissors - Ties the shoe lace
04	Gross Motors	- Weak abilities - Cannot jump or walk in straight lines	- Jumps with partial assistance - Able to walk in straight lines
05	Academic skills	Matches colours, shapes, number and pictures	- Classifies objects according to colour and size - Matches cleaning tools with pictures - Says the names of some animals - Draws a straight line
06	Routine and order	- Cannot follow the schedule - Escapes between sessions	- Follows the schedule and uses transition card - Follows the teacher's order and sits on the chair

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REPORT ABOUT SUBJECT 13 FOR THE YEAR 1996-97

CLASS: 3

NO.	Skills	Level of subject at the beginning of the year	Level of subject at the end of the year
01	Communications	Communication through hand and sign	- Body language and communication - Sometimes uses sign or crying
02	Social skills	- Plays alone and avoids participating with others - Does not respond to others around him	- Tries to participate with other - Accepts the company of others
03	Fine Motors	- Strings the beads - Holds the scissors - Grabs small objects - Opens can and buttons	- Strings the bends (different sizes) - Holds scissors correctly and cut the paper - Holds small objects with care - Opens and closes cans and buttons
04	Gross Motors	- Movement is fast - Does not follow straight lines - Climbs the ladder in balanced way	- Tries to throw and catch the ball - Moves along straight lines (sometimes) - Climbs the ladders
05	Academic skills	- Connects a line - Colour and number matching - Needs assistance in putting pieces of puzzles	- Classifies shapes and objects - Holds the pen and follows dotted lines - Puts pieces of puzzles together correctly
06	Routine and order	- Understands work system (from right to left) - More training is needed to understand the class order	- Follows the work system (from right to left) - Follows the routine of the class

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