

EARLY CHILDHOOD TEACHERS IN
LEBANON: BELIEFS AND
PRACTICES

by

Basma Faour

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Abstract

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PRACTICES**

The purpose of this study is to investigate the relationship between the beliefs and practices of Lebanese early childhood teachers and whether they differ in relation to school's socioeconomic status, class size, grade level, extent of teachers' educational background, their teaching experience or other situational factors. The study is comprised of 135 preschool and kindergarten teachers who responded to a questionnaire that is based on the Teachers Questionnaire devised by Charlesworth et al. (1991; 1993). Twenty – one schools representing part of the private schools in Lebanon were purposively selected based on their socioeconomic status and their regional diversity. Six participants were interviewed using semi-structured interviews with open-ended questions. Eighteen teachers were observed using the CPI inventory (Hyson et al, 1991) to compare self-reported classroom practices with actual observed practices.

Factor analysis revealed seven factors related to appropriate and inappropriate self-reported beliefs and eight factors related to appropriate and inappropriate self-reported practices. Analysis of Variance (ANOVA) showed a moderate association between Lebanese early childhood teachers' developmentally appropriate beliefs and practices ($r = 0.47, p = 0.001$). A stronger correlation was found between teachers' self-reported inappropriate beliefs and practices ($r = 0.62, p = 0.001$). The findings were consistent with previous studies done in the United States. When observed, teachers' beliefs appeared more developmentally appropriate, but they follow a more developmentally inappropriate practice. Appropriate and inappropriate beliefs and practices can be predicted by certain teacher characteristics and school characteristics. Multivariate Analysis (MANOVA) revealed that teachers' level of general education, training, age, salary, and parent's and principal's support were related to beliefs and practices of teachers. In addition, teachers' beliefs and practices significantly differ depending on school's

socioeconomic status, class size, and grade level they teach in. Table summaries, interview data and classroom observation supported much of the information gathered through the questionnaire.

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Dedication

I would like to dedicate this thesis to my family who stood by me through thick and thin, to Jana and Samer who put up with my late nights at the computer. My deepest gratitude goes to my husband for his belief in my abilities that inspired me to undertake such a colossal project. He has been a tower of strength and kindness and without whom this thesis, as well as a great deal of my personal happiness, would not have been possible. This has been the most torturous, tiring, yet greatest learning experience I have ever had.

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Chapter One

Introduction

The foundation for children's schooling success and future learning is laid during the early childhood experiences. Early childhood education sets children on a path that influences their basic attitudes about themselves as students, and affects their attitudes toward learning and school. The way early childhood education is planned today is based on the history of early childhood and the current culture of childhood and education. In each period of history, the economic, social and political factors have forced the field of early childhood education to change. Furthermore, these factors have affected the developmental expectations of young children and how they should be educated.

Childhood is a 'social invention' (Elkind, 1998, p.1) and as societies evolved so did the concept of childhood. In the Middle Ages, children were 'sinful' and thus their 'will had to be broken'; the Romantic era saw the child as basically 'good' and it is the society and school that corrupts him or her. This view later shifted to the 'sensual child' with Freud's theory and his emphasis on the development of a 'healthy personality' (Elkind, 1986). The post-modern concept of childhood emphasized competence and the need to have children who can adapt to early schooling, cope with changing family patterns, and deal with a wide range of social issues (Elkind, 1986; 1998).

In the 1960s, the intellectual development of the child became the focus in early childhood education research, which was fuelled by IQ research. Benjamin Bloom (1913-1999), the American education researcher, cited in (Elkind, 1986, p. 633) said that a 'young child attains half of his or her intellectual ability by age 4.' Bloom cautioned that deprivation during the preschool years could have serious

consequences for both cognitive and affective development (Elkind, 1986). In addition, research in the field involved the short and long-term outcomes of early childhood programmes.

One such study, the Perry Preschool Project, that was done in the late 1960s (Schweinhart, Weikart, & Lerner, 1986), demonstrated that high quality early childhood programmes have short and long-term effects on children's learning, particularly those living in poverty or at risk. Those programmes had positive effects on children's social and cognitive development (Barnett, 1995). High quality programmes boost later achievement and social adjustment (Elkind, 1987; Schweinhart & Weikart, 1998), reduce the likelihood of retention and increase the chance of graduation from high school (Schweinhart & Weikart, 1998) as well as affect students' self-esteem and motivation (Stipek, Feiler, Daniels, & Milburn, 1995).

In 1987, the National Association for the Education of Young Children-NAEYC, the largest professional organization representing early childhood, defined early childhood education as the period from birth to age eight. Furthermore, the NAEYC provided guidelines as to what it considered developmentally appropriate practices (hereafter referred to as DAP) and developmentally inappropriate practices (hereafter referred to as DIP). The framework for DAP instruction was based mostly on theories of Dewey, Vygotsky, Piaget, and Erikson. The statement was to counter the 'push- down' pencil and paper curriculum that was being increasingly utilized at the preschool level. There was growing concern over the effects that such curriculum would have on children. According to Shepard and Smith (1988) as cited in (Bredekamp and Copple, 1997, p.20):

When next grade expectations of mastery of basic skills are routinely pushed down to the previous grade and whole-group and teacher-led instruction is the dominant teaching strategy, children who cannot sit still and attend to teacher lectures or who are bored and unchallenged or frustrated by doing workbook pages for long periods of time are mislabelled as immature, disruptive, or unready for school.

The DAP reflected an interactive, constructivist approach to learning and it became a standard in assessing the quality of early childhood programmes. Much of the research on early childhood programmes that reflect DAP continues to demonstrate positive effects for young children (Burts, Hart, Charlesworth, & Kirk, 1990; Burts et al., 1993; Hyson, Hirsh-P, & Rescorla, 1990; Stipek et al., 1995). Furthermore, the literature is replete with both research and belief that quality is positively correlated with the knowledge and use of DAP (Bredekamp & Copple, 1997).

Lacking in these research studies was whether teachers incorporated DAP and how and which factors facilitated or hindered such practices. The continuous debate over what experiences young children should have and what they should know continues to preoccupy teachers (Jipson, 1991). The beliefs teachers hold about children is embedded in their responses to children's ideas and behaviours. These beliefs are influential in the choices teachers make in relation to curriculum and pedagogy (Kagan, 1992).

Much of the past research on teaching has opted for the product-process approach whereby researchers typically were concerned with the relationship between teachers' classroom behaviour, students' classroom behaviour and student achievement. Little attention has been given to teachers' thought processes (Clark &

Peterson, 1986) although a lot of literature has shown that their attitudes and beliefs play an important role in classroom practices (Kagan, 1992; Nespor, 1987).

Over the past fifteen years, researchers have shown increased interest in studying teachers' beliefs and the relationship of these beliefs to teaching and learning (Clark & Peterson, 1986; Fang, 1996; Kagan, 1992; Pajares, 1992). The popular ethnographic and other qualitative methodologies were factors that influenced research on teachers' beliefs. Among the research on teachers' beliefs were the studies regarding the developmentally appropriate beliefs and practices of early childhood teachers. Brousseau, Book, & Byers (1988) recommended that it is not enough to know what teachers' beliefs are; it is important to investigate whether these beliefs are educationally sound, how they change and what factors influence these changes. In one study (McMullen, 1999), teachers' beliefs highly correlated with their practices, whereas in another study, teachers' practices were influenced by parents, administrators, and curriculum (Stipek & Byler, 1997).

Background

In Lebanon, little attention has been given to early childhood teachers and the factors that influence the development of attitudes, beliefs, and practices. In the first section of this chapter, a brief description of Lebanon, its history and diversity, and the influences on its education system is provided as an introduction to understanding the effect of the cultural background that shapes the lives of students and teachers and how these blend into the classroom life.

Examining early childhood education in Lebanon through the lenses of political, social, personal dynamics is essential not only because it allows for

generating new knowledge but also for exploring the relationship between teachers and schools and the general views that guide teaching and learning in this country. Although not without its critics (Jipson, 1991; Lubeck, 1998), the DAP perspective is used in this study because it is currently held by many early childhood professionals and organizations to be characteristic of the “best practices” in the field.

In order to understand the dynamics of the development of the educational system in Lebanon, it is important to examine the forces that made up the Lebanese mosaic society along with the knowledge of its confessional political system and its history.

History and Diversity

Lebanon is a small country with an area of 10,450 square kilometres and a population under 4 million. It is the site of some of the oldest civilizations in the world (e.g. Byblos being the oldest city in the world; Sidon and Tyre are two other ancient cities). The location of Lebanon on the Mediterranean Sea made it a crossroad of Arab and Western influences. The earliest settlers were the Phoenicians who spread their 22-letter alphabet throughout the region. Their form later evolved and was adapted by the Greeks to become the backbone of modern alphabet.

Lebanon has had a long and often turbulent history. Of particular relevance to this study is the medieval and contemporary history of the country beginning in the year 1516 when Lebanon fell under the Ottoman Empire rule. That rule lasted three centuries during which local leaders were granted relative autonomy, particularly the Maronite Christians and the Druze. When the Ottoman Empire was undergoing a state of weakness and demise, Lebanon began to develop economic, religious, cultural and educational ties with Europe. Foreign countries assumed the protection of certain ethnic-religious groups. The Maronites and Catholics had strong ties with France and

later the Vatican, the Greek Orthodox Christians with Russia, and the Druze with England. By contrast, the Sunni Muslims had strong ties with the Turks and the Shiite Muslims with Iran and Iraq (Bashour, 1973). The actions of the foreign states have to a certain extent been instrumental in complicating the simmering religious antagonism among Lebanon's opposing confessional communities (Abou Chedid & Nasser, 2000). In 1860, the first such religious conflict nurtured by outside European powers took place between the Christians and the Druzes in Mount Lebanon claiming 10,000 lives.

Later, after World War I, Lebanon fell under French rule. In 1920, the French redefined Lebanon's borders combining the largely Muslim inhabited coastal plain with the Christian dominated mountains, thereby creating the Republic of Lebanon.

Lebanon became a mosaic society comprised of 18 religious and ethnic groups. In 1943, Lebanon gained its political independence from France. The new state gave each religious group a certain degree of autonomy in running its own social and religious affairs. The distribution of public positions and seats in the parliament was based on specified quotas given to each group in accordance with its demographic size (Bashour, 1973; Zouain, 1994). Tannous (1997, p. 23) says: 'the plethora of sectarian identities, while constituting Lebanon's cultural wealth, also acts as a barrier to unity.' So the Lebanese identify themselves with their confession first and then with their nation. This sectarian composition according to Tannous (1997) had an impact on the national system of education. She notes further that there are as many systems and philosophies of education as there are religious communities. The French, Anglo-Saxon and Arab philosophies and traditions have left their mark on the education system.

For example, Christian schools, mainly the Maronites ones, have been influenced by the French tradition and therefore, align themselves with Western cultures and often fear losing what makes them unique from other people in the predominately Muslim Arab world. The Western educational philosophies are reflected in the school curriculum and tendency to emphasize the French language and values. By contrast, Muslims and Orthodox Christians think of themselves as Pan-Arab Nationalists and their schools foster either the Islamic teaching in Muslim schools or the secular approach in Orthodox schools.

Since the end of the civil war, (1975-1990) reconstruction and rehabilitation efforts reached every vital sector of the economy including education, yet without radically changing the nature of the pre-war political system.

Education

In addition to being a centre of commercial and religious activity, Lebanon was an intellectual centre in the second half of the nineteenth century. Foreign missionaries established schools throughout the country, with Beirut as the centre of this renaissance. This new intellectual era was also marked by the appearance of numerous publications and by a highly productive press.

The main reason for playing this role was that during the Ottoman rule, many of the private schools had affiliations with foreign countries and had a free hand in running and managing their schools and catering to their own sects (Bashour, 1973). For example, the Ottoman Empire gave France special privileges in establishing their own schools on condition that French institutions will not be built in neighbourhoods where the majority of residents were Muslims. So in 1853, the Maronites opened their first school for girls, La Sagesse, and in 1875, the French Saint Joseph University (USJ) was established. In 1880, the Orthodox set up their own private schools,

notably the Ahlieh School (Bashur, 1973). The first Evangelical school was opened in 1860. The American University of Beirut (AUB) was founded in 1866 and the Lebanese American University (LAU) was founded in 1885 as Beirut College for Women. By the end of the 19th century, the Protestants had 123 schools (Jarrar, Mikati, & Massialas, 1988).

The clientele of these schools during the Ottoman rule was initially limited to the political and intellectual elite. In these private foreign schools, whose students were predominantly Christians, Arabic language teaching was allowed as well as teaching the language of the affiliated country. Muslims from elite families had access to these schools as well. On the other hand, most Muslims were educated in public Turkish schools where the language of instruction was Turkish. In response to the missionaries' work and in an attempt to ward off the possibility of the dominance of Western ideals on Muslims, the Sunnis established their own schools. In 1878, Al-Makassed Philanthropic Association was founded (Bashour, 1973). Its objective was to spread education among Muslims of both sexes. It currently has 49 schools in all the regions of Lebanon and has a student enrolment of about sixteen thousand. As for the Shiites, their first schools were established in 1910 (Inati, 1999).

With the collapse of the Ottoman Empire and the dominance of the French rule, things changed. During the French rule (1920-1943), transmission of French culture and language dominated the education system (Freyha, Younis, Abi Rashed, & Jumaa, 2001). French was then the official language of the country along with Arabic as decreed in article XI and remained so until Lebanon's independence in 1943. However, during the French rule, each religious sect maintained its own uniqueness in terms of freedom of education as stated in the Lebanese Constitution of 1926. Article X of the Lebanese Constitution (May 23, 1926) reads:

Freedom of teaching is guaranteed provided it does not transgress upon public order or morals and it is not disrespectful of any religion or sect. The right of the religious denominations to establish their own schools is guaranteed provided they are established in conformity with the regulations laid down by the State.

Once Lebanon gained its independence, article XI of the Constitution was amended to state that Arabic is the only official language. As for freedom of education, article X was kept as is (Bashour, 1973; Freyha et al, 2001). This freedom of education act bestowed to private schools would later prove to play a diminishing role as a national unifier. At the time of independence, English was not used in government exams and remained so until 1966, and secondary public schools were not built until 1952 (Bashour, 1973).

The use of French as the primary medium of instruction prevails in schools (60.8% of schools), while the use of English as the only foreign language of instruction exists in about a fifth of the schools (19.6%). There are schools that use both English and French language as primary languages in instruction. They account for another fifth (19.6%) of the schools (NCERD, 2001, p.46). In those schools, either French or English is introduced very early in school. Some schools teach both languages starting at the preschool level along with Arabic. In other schools, either French or English is introduced at grade three.

Schools

There are three types of schools in Lebanon: private, semi-private, and public. Private schools are supported financially by student fees and basically enrol students

from high-and middle –income families. A second category is that of privately run schools but subsidized by the government. In these ‘semi-private’ schools, students who come from low—income families and who do not live near a public school can enrol and the government pays half the tuition. The third type is the public school, which is run by the Ministry of Education. Up to two-thirds of the elementary students in public schools in 1970 were Muslims (Bashour, 1973). No recent data on the religious composition of public schools are available, but the proportion of Muslims found in 1970 must have increased given the nature of demographic and economic changes in Lebanon.

According to NCERD (2001), there are 2677 schools in Lebanon, half of which (49.5%) are public and over a third (36.3%) private. The remaining 14% of the schools are semi-private. Religious schools comprise 28% of the private and semi-private schools. As for student enrolment, the majority (50.5%) is enrolled in private schools while in public schools the enrolment of students is 37.9% (NCERD, 2001, p.7).

Most of the students enrol in French schools: 64% in private schools, 64% in semi-private or government-subsidized schools, and 73% in public schools (NCERD, 2001, p.17). The region in Lebanon that has the highest percentage of student enrolment in French schools is Northern Lebanon (21.5%), while Beirut Suburbs has the highest percentage of English schools 9.4% (NCERD, 2001, p.16).

In spite of government attempts to make public schools accessible to all Lebanese, private schools have remained the first option for students where student enrolment reached 70 percent in the academic year 1993-1994 (Freyha et al., 2001). Public schools attracted financially poor students.

There is uneven geographic distribution of the schools over the administrative divisions of Lebanon (each known as *muhafazah*). Most of the public and semi-private schools are concentrated in Northern Lebanon and Bekaa while private schools are concentrated in the capital and its suburbs (NCERD, 2001, p.45). The private schools selected for this study are mainly from those two regions.

Curriculum

From 1943 to 1994, the national school curriculum was revised once in 1968 and remained unchanged until the end of the civil war. The curriculum suffered several weaknesses one of which was that the teacher was the centre of the learning experience and students were passive recipients. Instruction largely consisted of lectures by teachers, and students rarely questioned what was presented (Inati, 1999). Some private schools used more progressive methods of instruction such as discussion and the student-oriented approach (Jarrar et al, 1988).

The reform of the educational system began with the reconstruction efforts after the Civil War. In October 1995, the government approved a new educational system that was fully elaborated in 1997. More than 400 educators worked on each subject area. The changes were instigated by the data on student retention, which reached 47 percent in 1996 (Freyha et al., 2001). Among the important changes in the new curriculum was the acknowledgement of the importance of early childhood education, and the change in the school entry age from three years to four years. Prior to 1997, many schools considered kindergarten as part of elementary school. In addition, basic compulsory education now covers nine years (6 years -15 years of age). This meant adding one more year to the elementary years so that it spans 6 years instead of 5, and making education compulsory up to age 12 as a first step towards extending basic compulsory education even farther to age 15.

Teachers

In the year 2000, the total number of teachers in Lebanon for all grades, pre-12 was 72,173. They are equally distributed between public and private schools (46% and 47% respectively), while the semi-private schools employ less than 7% of the total number of teachers (NCERD, 2001, p, 38).

As for gender, the majority of Lebanese teachers are females (69.7%). A breakdown by type of school reveals that a great number of female teachers (64.66%) teach in public schools versus 72.3% and 85.88% who teach in private and semi private schools respectively (NCERD, 2001, p.32)

As to their qualifications, the majority of Lebanese teachers do not possess a university degree (65.1%), yet many of those teachers have a teacher training certificate (12.4%). As for their ages, the teachers are about evenly distributed among the age groups: under 30, 30-40, and above 40 years: 33.8%, 34.6%, and 31.6% respectively (NCERD, 2001, p.37).

Teacher Training

Given that teachers play an important role in children's success or failure in schools, the type of teacher training has influence on classroom practices. Historically, teacher training programs for teachers began with the European missionaries who established these programs in their own institutions. Before the 1950's there were only three private teacher training programs. The earliest teacher training institute dates back to 1890 when the British-Syrian Lebanese Mission School was established. In it, the British Lebanese Training College provided training for would be teachers and used its school as a learning site (Mansour, 1956). The criterion for admission was for teachers to be holders of Baccalaureate degree.

In higher education institutions, education majors were offered in only two universities. LAU previously known as Beirut College for Women was founded in 1920 by the Presbyterian Church. It was open for females only at that time. It began its teacher training in 1936 and offered its first course in general teaching methods. Then in 1950 established its own education department and offered a course in child development. Preschool education was housed in human development department. Teacher training at AUB began in 1910 and through a grant in 1952 from Rockefeller Brothers Fund provided teacher training at the elementary level for 100 teachers from seven countries of the Near East (Mansour, 1956). In order to provide training for more teachers in rural areas the university established in 1955 elementary teachers training institute, one was located on the university campus and the other in South Lebanon in Sidon Girl's School.

These two universities continue to offer teacher training and education majors. LAU is the only private university that has had a long history in providing training in early childhood. Since 1998, the early childhood education has become part of the Bachelor's degree in education and not under human development. In 2000, LAU started a graduate degree programme in education. AUB offers education programme for both undergraduate and graduate students at the elementary and secondary level.

In 1942, the Lebanese government opened its first Teacher Training College located in Furn El-Cheback (Mansour, 1956). To become a primary teacher in public school, it was enough to have nine years of schooling and then go to a teacher-training institute for two years. Later in 1953, the government changed the requirement to three years (Jarrar et al, 1988). In 1951, the government established the Lebanese University to provide teacher training for secondary teachers and later in 1953 became a university with diverse programmes (Freyha et al., 2001).

In 1966, large private education institutions like Al-Makassed Philanthropic Association founded their own teacher training programmes for primary teachers. The purpose was to prepare primary school teachers to teach in urban and rural areas (Jarrar et al, 1988). Their programme was similar to that of the government admission requiring 9 years of elementary schooling or Brevet level.

In 1970, the National Centre for Educational Research and Development (NCERD) was created. It provided textbooks for public schools and civics and history books that were required for all schools, private and public as well as issuing yearly education statistics reports. The Centre also provided teacher training for pre-primary and primary public school teachers through a ten-month training period after the completion of their secondary school/high school.

The 1980's witnessed growth of private universities, some of which offered education programmes and training to interested teachers. By the year 2000, the number of private universities reached 42 (Freyha et al., 2001). Yet, despite the long history of teacher training, up to 45 percent of teachers at the primary level were found unqualified in the early 1990s (Zouain, 1994).

Statement of the Problem

Early childhood education programmes in Lebanon began in October 1946 where it set the age of school entry at three and elementary to begin at five (Bashur, 1996). The programmes were limited to private schools until 1971 when they were introduced into public schools. Public schools devoted only two years whereas private schools devoted three (Inati, 1999). Yet, provision for these programmes in public schools remains low. In 1991, only 16.88% of public schools had programmes for young children versus 63.9% of private schools (NCERD, 1993).

There is limited research on early childhood education in Lebanon. In a simple electronic search on masters education theses at the American University of Beirut from the year 1970 up to the present, out of the 650 available theses, only 6 had to do with early childhood and only one dealt with teachers as focus of the study. Only three doctorate theses on early childhood teachers in Lebanon were found.

The scarcity of relevant research can be attributed to several factors. First, preschool teachers have a relatively low social status for they are perceived by society as being more like 'babysitters' than educators. Many consider it as an extension of 'motherhood'. Secondly, there are no stringent criteria on qualifications of teachers or academic preparation. That is, there is no law that requires preschool teachers to be holders of a bachelor's degree. More importantly, the early childhood major was not a field of education in colleges and universities even among those that had an education major. For example, AUB has had an education major but not one with an emphasis on early childhood education. The Lebanese University also has the major but it is offered either in French or Arabic. The only university known in Lebanon to have had a history in early childhood education is LAU. This major was offered previously under Human Development major since the late 1950s until 1998 when the major became part of the Education and Social Sciences Division.

Of the few studies on early childhood in Lebanon, the most relevant to this study is Lina Al- Banna's doctoral dissertation completed in 1984. In her study, she stated that early childhood teachers in private schools tended to be autocratic and reluctant to try more democratic approaches in discipline. Only 45.2 percent of the sampled teachers were university graduates.

In a recent study of preschool teachers, Bashur (1996) reported that the majority of the teachers from private, public and semi-private did not have a

university degree and almost all of the preschool and kindergarten teachers lacked child development knowledge. Her study found that out of the 404 teachers, 89% of them did not have a university degree (data computed from table 26, Bashur, 1996, p.113). Furthermore, those who had an education degree employed better teaching strategies. Another finding was that the education programmes in her sample were detached from the Lebanese culture (Bashur, 1996), and teachers relied a lot on Western resources and ideas in their teaching.

The education background of Lebanese teachers represents a continuum from a grade 9 level to a bachelor degree or higher (NCERD, 2001). These teachers are involved in the planning and implementation of early childhood programmes and are entrusted with the responsibility of creating optimal learning environments for thousands of youngsters.

Given the impact of children's early experiences on their future learning, the role of the early childhood Lebanese teacher becomes a critical factor for children's progress. Much of the curricular choices that teachers make are largely based on the educational beliefs that they hold (Isenberg, 1990; Kagan, 1992; Nespor, 1987). These beliefs impact teachers' instructional strategies and warrant investigation.

Purpose of the Study

The purpose of this study is to determine if a significant relationship exists between teachers' beliefs and practices concerning their developmental appropriateness. It also attempts to determine whether teachers' beliefs and practices are likely to differ depending on the socioeconomic status of the schools where they teach, the extent of teachers' educational background, and classroom experience. The relationship between beliefs and practices is examined using the Teacher

Questionnaire (TQ) developed by Charlesworth, Hart, & Burts (1991). Several studies using TQ have suggested that beliefs and practices of early childhood teachers fall into a continuum, and that there are factors that facilitate or hinder teachers' practices.

Selected for the study were 135 early childhood teachers at the preschool and kindergarten level from 21 schools in Lebanon. Each teacher was administered a questionnaire that included a demographic part, the Teacher Questionnaire (TQ) and items that asked about the goals of early childhood and factors that influence teachers' beliefs and practices. The schools were representative of the religious diversity that exists in Lebanon and the different socioeconomic strata. Interviews and classroom observation checklist as well as field notes were used in some of these schools.

Research Questions

This study attempts to answer the following questions:

1. How do teachers' self-reported beliefs and self-reported practices align with current theory about early childhood education, mainly DAP?
2. What is the nature of the relationship between teachers' self-reported beliefs and self-reported practices?
3. Are teachers' self-reported practices consistent with actual observed practices?
4. What is the nature of the relationship between teachers' self-reported beliefs and self-reported practices on the one hand and teacher characteristics on the other?
5. What is the nature of the relationship between teachers' self-reported beliefs and self-reported practices on the one hand and school characteristics on the other?

6. What is the nature of the relationship between teachers' self-reported beliefs and self-reported practices on one hand, and teacher and school characteristics on the other?

Significance of the Study

The new Lebanese curriculum has among its goals nurturing democratic ideals, helping children think for themselves and be autonomous and decision makers. It becomes the school's responsibility to help children develop these values and skills. Furthermore, children are influenced by the adult in their school life, that being the teacher.

Presently, little information exists as to several aspects of teachers of young children, in particular, early childhood teachers' beliefs and practices in Lebanon. The importance of this study is both theoretical and practical and contributes to our understanding of teachers' thinking, particularly since the importance of early childhood experiences is well acknowledged. A comparison from an international perspective is helpful in expanding the knowledge of cultural and international appropriateness of these USA developed guidelines.

The study is expected to provide insight into the beliefs and practices of early childhood teachers. The information would provide an explanation as to why and how the observable activities of teachers become that way. The study would also inform about how teachers are likely to respond to policy initiatives and curriculum innovations. In addition, the findings would enlighten educators on whether what is considered to be 'appropriate' versus 'inappropriate' in the US is considered to be 'appropriate' versus 'inappropriate' in a non-USA context. This would lead to better models of early childhood education that are relevant to the context of the country.

It is hoped that the findings will provide answers to the complexity of teaching and the knowledge gained about the cultures of teaching. The findings should be of interest to policy makers, school administrators, and educators in teacher education programmes in Lebanon. These findings can help in the formulation of policies for improving the conditions of teaching and aid researchers in better understanding of the dynamics of a classroom, provide data for teacher education programmes, and inform policymakers of what teaching has become like in the 21st century.

Hypotheses

The following four hypotheses will be tested:

- Teachers' self-reported beliefs are congruent with their self-reported practices.
- Teachers' self-reported practices align with their actual practices.
- Teachers' self-reported beliefs and self-reported practices vary in relation to teacher characteristics.
- Teachers' self-reported beliefs and self-reported practices vary in relation to school characteristics.
- Teachers' self-reported beliefs and self-reported practices vary in relation to both teacher characteristics and school characteristics.

Chapter Summaries

Chapter two discusses the research literature available concerning the evolution of the field of early childhood education, the impact of the competing theories on provision of programmes and the type of experiences provided for young children. It also examines the changes in teachers' role as well as the research done in the last decade on the developmental appropriateness of the beliefs and practices of early childhood teachers. Chapter three describes the study design and the

methodology used in developing the questionnaire, the use of classroom observation and semi-structured interviews as well a discussion of the limitations of the study. Chapter four and five analyzes the data obtained from the questionnaires, classroom observation, and transcribed interviews. Chapter four presents the findings and provide discussions to the first three research questions that centre on the nature and strengths of the relationship between teachers' beliefs and practices. Chapter five presents and discusses the other three research questions which examine teachers' beliefs and practices in relation to teacher and school characteristics. Chapter six provides summary and conclusion to the study and the implications for further research.

Definition of Terms

Teachers' Beliefs- Teachers' assumptions about their students, classrooms, and academic materials to be taught (Kagan, 1992, p.65).

Developmentally Appropriate Practices- defined as the outcome of a process of teacher decision making that draws on at least three, critical interrelated bodies of knowledge: (1) what teachers know about how children develop and learn; (2) what teachers know about the individual children in their group; and (3) knowledge of the social and cultural context in which those children live and learn. (Bredekamp & Copple, eds., 1997, p. vii)

Early Childhood - Period defined by NAEYC as from birth to age eight.

Preschool- In Lebanese schools, preschool refers to nursery, KG1 and KG2. However, in this study, preschool is considered nursery and KGI while KG2 is considered as kindergarten.

Chapter Two

Review of Literature

The purpose of this chapter is to review the literature on the theories that influenced early childhood education practice, images of childhood and the changes in the roles of teachers. The review is suggestive rather than comprehensive; it attempts to demonstrate how previous research on early childhood education has altered the type of experiences provided for children. It also examines the theoretical underpinnings of the new trends and whether the new practices fit. Among these new trends is the widely endorsed philosophy of Developmentally Appropriate Practices (DAP) for early childhood programmes and its relationship to teachers' beliefs and practices.

Evolution of the Field of Early Childhood

The field of early childhood research has changed in terms of concepts and methods (Aubery et al., 2000). Examining the past history of early childhood education helps in contextualizing current approaches to the study of early childhood programmes. It also reveals the social and political dimensions of the experiences provided for children thereby providing an awareness and understanding of changes in education.

Europe has been a rich source of many influential educational ideas, thus most of the contributors had a 'Eurocentric' perspective (Aubery et al., 2000). Furthermore, much of the theories developed served a certain socioeconomic class. For a long time, children of the poor, disabled as well as females were not included in these approaches.

The roots of early childhood education can be traced back to early Greek traditions. The Greek philosophers Plato and Aristotle were the first to address early childhood and highlight its importance. Plato recommended that children should be taught by the State because parents often are a corrupting influence and may pass their own prejudices and ignorance to their children (Krogh & Slentz, 2001). Plato advocated play, physical development, and aesthetics. In addition, he was the first opponent to corporal punishment. To him, formal education should begin at age 6 (Elkind, 1986). However, the approach was only for privileged children. Though Aristotle shared some of Plato's ideas, he refused to allow the State to educate the children. Children should be taught at home until they attain the age of reason (that being age 7) and adults should use positive and negative consequences to mould behaviour. In this sense, perhaps he was the first behaviourist (Krogh & Slentz, 2001).

In Rome, Quintilian was the first philosopher to identify the actual stages of child development where the first stage is the child's first seven years of life (Krogh & Slentz, 2001). During the Middle Ages, sometimes referred to as the Dark Ages, the idea of childhood was buried, and as a result the field of early childhood education faded. The church dominated all forms of thought and expressions and considered children as evil miniature adults "whose will needed to be broken." Furthermore, illiteracy reigned (Elkind, 1986; 1998).

The invention of the Printing Press in 1425 slowly transformed societies through disseminating ideas and information from a single source to a large and broad audience. The significance of the early childhood years was recaptured during the Renaissance. In the 1500s, Martin Luther (1483-1546), a Protestant Reformer, encouraged the spread of books among people, developed the first school and called

for a universal education, one that encompasses females and poor children (Morrison, 2001).

In the 1600s, a Czech bishop, John Comenius (1592-1670), planted the seeds for the beginning of a new era of childhood education (Krogh & Slentz, 2001). Comenius was an advocate for universal education for all children of different socioeconomic classes. He developed the first picture book for children *Orbis Pictus* in 1638. His book would later influence development of audio-visual techniques in the classroom (Krogh & Slentz, 2001).

In the late 1600s, the Puritan John Locke (1632-1704) popularized the *tabula rasa*, blank slate. His assertion was what the child becomes is the product of the experiences and the environment. Thus, the image of the child was that of being a “piece of clay” to be moulded and shaped.

The works of the French philosopher Jean-Jacques Rousseau (1712-1778), were a clear demarcation in the image of the child. He dispelled the prevalent view of his era that children were simply ‘miniature adults’. Instead, he saw that children were basically good and that society corrupted them. According to Rousseau, the child is like a flower that ought to be allowed to blossom at the appropriate time rather than a lump of clay to be shaped and moulded. Rousseau viewed children as moving through stages and learning through direct interaction with the natural physical environment. His ideas did not include females or poor children and are similar in this respect to Locke (Williams, 1999).

The pastor John Oberlin in France founded the earliest model of an early childhood programme around 1767. The school known as the “Knitting School” was set up on oral traditions where the teacher would gather children around and tell stories and share handicrafts (Spodek & Brown, 1993).

In the early 1800s, Johann Heinrich Pestalozzi (1746-1827), a Swiss educator focused on teaching the hearts, hands, and heads of children. In other words, it was about educating the whole child, physically, spiritually, and intellectually. He believed that education should follow the child's nature (Morrison, 2001). Pestalozzi took in poor children and believed that educating them would give a head start and is a way to transform society. He developed educational practices that were influenced by Rousseau's emphasis on interaction with natural materials.

In Scotland, Robert Owen (1771-1858), an English social reformer and factory owner, embraced Pestalozzi's ideas and his concern with providing opportunities for poor children. This prompted Owen to open the first "Infant School" in 1816 and another in London in 1818. Owen is perhaps one of the earliest to raise awareness about the importance of early childhood and societal improvements (Morrison, 2001; Spodek & Saracho, 1996).

Friedrich Froebel (1782-1852), a German educator, known as the father of kindergarten or children's garden, visited Pestalozzi and in 1837 opened the first kindergarten for three-to five-year olds. He was the first to establish training for teachers and contributed to areas in learning, curriculum and methodology. He introduced play as a 'major medium for instruction' (Williams, 1999). He also designed the first educational toys termed *gifts* and provided creative activities termed *occupations* that were used to enhance and expand the lessons of the *gifts*. He also introduced songs, games and finger plays. In a sense, Froebel expressed the essence of early childhood education (Krogh & Slentz, 2001). What remains today of his ideas are circle time and the songs (Morrison, 2001). His works later inspired Erikson and Piaget.

The first half of the twentieth century witnessed social and historical changes that influenced education. These changes led to the demise of Froebelian curriculum in favour of a progressive one, led by an American philosopher and educator, John Dewey (1859-1952) who found Froebelian kindergarten as being too spiritual, undemocratic, and un-American since it was imported from a totalitarian social philosophy (Spodek, 1991). John Dewey emphasized that education and democracy are linked and challenged the traditional practices in education. He saw classrooms as the ideal setting to develop and shape the democratic citizen. This tradition of progressivism led to new visions of schools as being sites for transforming society. The concept of meaningful and relevant experience gained momentum (Mooney, 2000). Schools became more child-centred.

About the same time in Italy, Maria Montessori (1879-1952), the first female Italian doctor and educator, opened her Children's House- *Casa dei Bambini*, in 1907 where she introduced her didactic teaching materials that were self-correcting and auto-educational. She developed the principles of first educating the senses and then educating the intellect (Morrison, 2001). She focused on the promotion of social competence in individuals. She was the first to suggest 'prepared environment' and introduce child-size furniture as well as mixed-age grouping. Montessori believed that the child is like a sponge, one who soaks up knowledge from the environment. Thus, the idea of the absorbent mind emerged. Montessori further wrote about sensitive periods. (Morrison, 2001).

That era also witnessed new conceptions of child development. The Child Study movement led by G. Stanley Hall (1846-1924), the father of child psychology who made the child development more scientific. Freud's (1856-1939) psychoanalytic theory focused on the emotional aspect of children's life and the development of a

'healthy' personality (Spodek, 1991). So, art and play were seen as emotional catharsis.

These theories resulted in a shift in how society saw children from a social being to one that included the child's physical and psychological growth patterns (Williams, 1999).

From the 1920s to the 1950s, several new theories dominated the field. American psychologist, Erik Erikson (1902-1994) published his first book in 1950 in which he emphasized the influence of culture and society on the child's psycho-social development. These influences formed the foundation for emotional and social development and mental health. His theory of psychosocial development presented the Eight Stages of man and gave us the term 'identity crisis'. Erikson added that the early childhood years were critical in children's development of trust, autonomy, and initiative (Mooney, 2000).

Whilst other theorists investigated what and when children know, Jean Piaget (1896-1980), a Swiss biologist, investigated how children arrive at what they know. By examining the nature of children's error he came up with the age- stage theory of cognitive development. The Russian psychologist, Lev Vygotsky (1899-1934), on the other hand, used a socio-cultural approach in understanding cognition. His approach was greatly influenced by the political regime in his country and its Marxist framework.

According to Vygotsky, social interaction between children and a more competent and knowledgeable adult is necessary for children to acquire the ways of thinking and behaving that make up a community's culture. Furthermore, he saw children using private speech as a way of self-regulation of behaviour whereas Piaget saw speech as egocentric attempts to communicate. Vygotsky said that there was a

zone of proximal development-ZPD that could be attained with guidance and modelling by more competent peers and adults. His ideas and works were taken up by the West after the 1970s and were the result of the social and political changes that swept that era (Williams, 1999).

It is worth noting that most of these theories originated in Europe between the 16th and 19th centuries and have been disseminated throughout the world. These theories either replaced or blended with the country's form of early childhood education (Spodek & Saracho, 1996). The countries adapted the models to their national conditions since "these countries had different conceptions of knowledge, different conceptions of development, and different cultural values" (Spodek and Saracho, 1996, p.5). In some cases, the programs were dispersed by Christian missionaries and scattered across the oceans. As early childhood programmes were established in other non-Western countries, the individual cultures modified both theory and practice (Spodek & Saracho, 1996, p.8).

There were lasting influences of the child development theories and research on early childhood curriculum and practice. Those theories served as primary foundation for curriculum model development. One such approach arose in 1945 from the rubble of World War II in the town of Reggio Emilia in Northern Italy. The citizens used the money from the sale of old tanks and horses to invest in their future by building quality preschools.

The principles of Reggio Emilia approach were a natural extension of the works of John Dewey, Jean Piaget and Lev Vygotsky among others. Reggio Emilia has gained worldwide recognition in recent years for its undisputed successes with young children. It became a source of inspiration for progressive educational reform

(New, 1990). The Italian educator, Dr. Loris Malaguzzi (1920-1994), was the philosophical leader for that approach (New, 1990).

Malaguzzi worked with the citizens to develop this child honouring approach that follows the children's interests. Malaguzzi (1998b) considered this approach a declaration against the betrayal of children's potential and a warning that children first of all had to be taken seriously and believed in. He put forth the idea that there are 100 languages (paint, clay, music, drama, etc...) in which expression can take place.

The key features of this approach included the role of the environment as 'third teacher', children's multiple symbolic languages, teacher as a researcher, the use of documentation as assessment and advocacy and the partnership with parents and community. The approach uses projects that are directly related to children's interests and in which children learn through them the principles of science, mathematics, and language (New, 1990). Furthermore, the curriculum is child-originated rather than child-centred and teacher framed.

Significant to Reggio Emilia was its powerful image of the child. The child is seen as capable, social, and full of intelligence, curious, inquisitive and marvelling at everything (Malaguzzi & Gandini, 1993). In such an approach, the role of the teacher is to be a researcher along with the children, a sensitive listener, observer, documenter and a guide as well. According to Malaguzzi (1998b) learning and teaching should not stand on opposite sides. Both should embark together through an active, reciprocal exchange whereby teaching can strengthen learning how to learn.

The United States was introduced to this approach at the annual conference of the National Association of Education of Young Children -NAEYC in 1987. Interest in this approach grew as American educators became inspired by the exhibition of the "Hundred Languages of Children".

Another approach that emerged due to the influence of the European and American theorists was the Developmentally Appropriate Practices (DAP). It is a philosophy that incorporates the thinking of theorists like Dewey, Erikson, Piaget, and Vygotsky as to how children learn (Bredekamp, 1987). The child is viewed as intrinsically motivated and self-directed. In the next section a more detailed discussion of DAP will shed light on the issue.

In summing up this section, the two major changes that took place over the 150 years of the field of early childhood education are emphasized. The first change has to do with the image of the child which shifted from that of a miniature adult, sinful child to a growing plant and finally to a child as a person with rights (Morrison, 2001).

The second change involved the teacher's role. During Rousseau's period, the role changed from that of a transmitter of knowledge to that of a protector who should be deflecting societal influences enabling the child to unfold. With Froebel, the role of the teacher was coaching, prompting, giving suggestions, as well as asking questions and modelling. Dewey involved teachers in teaching strategies like cooperative learning and problem solving for a democratic citizen.

In Montessori classrooms, the teacher was the 'directress' who also observed children's behaviour and facilitated their choices. Vygotsky redefined the role of the teacher as being more important for scaffolding children's learning. With Piaget, the role of the teacher was to assist the child in learning by creating situations where children can naturally develop their mental abilities and construct their own knowledge (Morrison, 2001, Williams, 1999). Teachers nowadays are expected to play a variety of roles in the classroom: an educator, motivator, guide, counsellor, coach and disciplinarian.

Most significant of all was Reggio Emilia's contribution to the field whereby it looked deeply at the image of the child, the role of the teacher and family, and the importance of the environment to establish a curriculum based on an approach, which is constructed and reflected through documentation and collaboration between teachers, parents, and children.

Overall, this suggestive review of literature has shed light on the diverse images of young children and changes in teachers' roles and has shown how the concept of childhood is socially constructed and culturally situated. From what has been discussed, different early childhood programmes have come to be associated with particular theoretical orientations regarding child development and learning. In addition, societal changes influenced the aims and purposes of schooling and teaching.

Recent Developments in the Early Childhood Development Field

The 1960s witnessed social and political upheavals that left their mark on the early childhood education field as well as on the research on teaching. The Soviet Union's launching of Sputnik in 1957 sparked fears among United States politicians and policy makers to the failure of the education system in developing critical thinkers and high achieving individuals in sciences (Elkind, 1986; 1998). There was a backlash on Dewey's progressive education and more calls for early academic training. Thus, kindergarten education focused more on the development of academic skills and less on socialization.

Furthermore, the civil rights movement, women's rights movement and the growing public awareness of the inequality of the education system in the United States led to development of early childhood programmes for the disadvantaged

children in which academic concepts were introduced early. The claim being that early academics are effective in raising the academic achievement of poor minority children.

All this encouraged educators like Carl Bereiter and Seigfried Englemann to introduce DISTAR- Direct Instructional Systems for Teaching, an early academic programme based on the learning theories of Edward L. Thorndike and B. F. Skinner. The Bereiter-Englemann (1966) program- uses didactic instructional approaches, which emphasizes recitation and memorization (Brewer, 2001).

In the late 1960's and early 70s, research in the early childhood education began investigating the nature of early childhood programmes by looking at programmes that yielded the greatest gain in children's performance on IQ and readiness tests (Katz, 1994).

In the early 1980s and up to the 1990s, several new programmes appeared. Two distinct groups emerged, one that advocated skill-based teaching and school subjects with early academics and the other advocated child-centred learning in which play is incorporated (Williams, 1999). Furthermore, child development was no longer seen as uniform and universal. It came to be seen in a new light through the lenses of social and cultural influences on children's development and learning.

Research on Types of Early Childhood Programmes

Early childhood programmes provide short-term and long-term benefits on children. In his review of 36 studies of preschool, Head start and child care programmes, Barnett (1995) found that the participation effects of children from low-income families produced significant short-term benefits on Intelligence Quotient

(IQ) and resulted in long-term benefits on school achievement, grade retention, placement in special education, and social adjustment.

Marcon (1999) compared the three different approaches and their effect on children's development and mastery of basic skills at the end of preschool. Her findings indicated that children whose preschool experiences had been child-initiated demonstrated greater mastery of basic skills at the end of preschool than did children in programs where academics were emphasized and skills were directly taught. At the end of preschool, children in the "combination" model did significantly poorer on all measures except self-help and development of social coping skills compared to children in either the child-initiated or academically directed models. Preschool girls outperformed boys in all areas except gross motor development and play/leisure skills.

In her quasi-experimental design, Marcon, (2002) found that children whose preschool experience were child- initiated fared better than their peers in the transition from the primary to the later elementary school grades. Not only were their overall grades significantly higher following the transition, but their school performance improved. Grades of children from academically directed preschool classrooms declined in all.

Researchers examined whether there is a well-defined, research-proven early childhood programme to follow. One such study was the High/Scope Perry Preschool Comparison study that began in 1969 and through a longitudinal study tracked children from 4 years of age and up to age 23 (Schweinhart & Weikart, 1998). This study compared three early childhood models for three- and four-year-olds.

One used a direct instruction model that stressed academic skills (DISTAR curriculum), the other a cognitively- oriented approach based on Piaget's theory

known as High/Scope curriculum. This model stresses child-initiated learning within a teacher-supported environment in which children engage in planning and evaluating their work. As for the third, it was the traditional child-centred nursery programme where children engaged in free play with a stress on social skills. The earlier results showed that although both DISTAR and High/ Scope curricula resulted in cognitive gains for children, these effects in the academic model tended to fade over time and had very different effects on social behaviour (Bredekamp, 1996).

The authors compared the subjects who experienced those models with respect to a number of factors: amount of higher education, length of significant relationships, and number of criminal arrests that the participants were engaged in. When compared to the control group, children who went to a “high-quality, cognitively oriented” preschool programme did significantly better in all areas.

Results also showed that children in the direct instruction model had more criminal arrests, were less likely to plan going to college, and had more social and emotional problems than their counterparts in the High/Scope model, (Schweinhart & Weikart, 1998). Some researchers have called for exercising caution when looking at the results of this comparison study (Frede, 1995). The questions about the results have to do with the fact that one of the curricula being tested in that study was developed by the research organization itself.

Frede (1995) in her examination of the role of program quality noted that high quality early childhood programs result in better cognitive and social development. She found that effective programs are characterized by the following: small class size, teachers support, and communication between home and school.

Thus, beginning in the 1980s, leading early childhood experts expressed concern about the wisdom of overly didactic, formal instructional practices for young

children (e.g., Elkind, 1986). They feared that short-term academic gains would be offset by long-term stifling of children's motivation, self-initiated learning, and willingness to take academic risks (Elkind, 1987) as well as for social behaviour and general school competence (e.g., Schweinhart & Weikart, 1998; Schweinhart, Weikart, & Larner, 1986).

Research into the quality of early childhood was not the only significant event during that period. Researchers became interested in literacy issues concerning young children. Philosophical and methodological differences had existed regarding how best to teach young children to read and write. In their extensive review of literature on literacy development, Teale and Sulzby (1986) noted that from the late 1800s to the 1920s, research on reading and writing focused solely on the elementary school years.

In the 1920s, however, researchers began to acknowledge the early childhood and kindergarten years as a 'period of preparation' for reading and writing. Thus, the term 'reading readiness' emerged and in the late 1950s and 1960s, the term meant that a certain level of cognitive, social, emotional, and physical maturity had to be attained before children can benefit from instruction. This perspective led to more direct instruction and structured curriculum in order to prepare young children for reading (Gambrell & Mazzoni, 1999).

Research into child development has also led to a new way of looking at children's literacy acquisition. Since the 1960's, researchers began to challenge traditional reading readiness attitudes and practices and thus a shift began toward a view of literacy as an emerging set of knowledge and skills that have their beginnings in very young children (Gambrell & Mazzoni, 1999).

One of the pioneers who examined young children's reading and writing was Marie Clay who in her 1966 dissertation introduced the term "emergent literacy". Her work also investigated children's writing (Clay, 1966; 1975); and emphasized the importance of the relationship between writing and reading in early literacy development. Clay (1975) reported that the developmental nature of writing suggests that preschool children should engage in writing activities.

Later, Clay's concept of emergent literacy evolved to include several elements. Among them was that literacy development begins long before children start formal instruction. For example, children by age 2 or 3 can recognize logos and environment print. Another element was that reading and writing are interrelated. Teale and Sulzby (1986) described 'emergent literacy' as a "paradigm shift" in understanding children's awareness of written language.

In the late 1980s and early 1990s, researchers began investigating preschool classrooms that support the emergence of early literacy (Neuman & Roskos, 1997). In her review of countless studies of reading instruction, Adams (1990) concluded that reading programs that included systematic phonics instruction led to better readers than programs that did not. In addition, programs that combined systematic phonics instruction with a meaning emphasis seemed to work best of all. She stressed the importance of phonemic awareness for later success.

These literacy issues led to different schools of thought; one that advocated a whole language approach to literacy and the other which focused on phonics instruction as a precursor to reading.

The above studies along with growing concerns over the push for more inappropriate academics (e.g., workbook/worksheet, drill and practice skills) and the

increasing use of retention practices in many early childhood programs, prompted the USA's NAEYC to publish its position statement in 1987.

Developmentally Appropriate Practices: Current Trends and Debate

The DAP statement defined early childhood education as the period from birth to age 8. In addition, the position statement included guidelines that clarified both the 'why' certain practices are appropriate and suggested 'how' appropriate practices should be implemented for each age.

The central principles of DAP are: wholeness of the child, active involvement, interaction with adults and peers, authentic experiences, appropriate learning activities, integrated curriculum, intrinsic motivation, authentic assessment and inappropriateness of grade retention (Vander Wilt & Monroe, 1998). This approach also advocates play as a vehicle for learning. It is through play that children learn language, as well as social, physical, and problem-solving skills. Through play, children learn initiative, autonomy, industry, and competence.

Piaget (1983, p.113) has cautioned that 'each time one prematurely teaches a child something he could have discovered for himself, that child is kept from inventing it and consequently from understanding it completely.

Wardle (1999) listed twelve beliefs in praise of DAP. Among them is the fact that DAP integrates information, skills, content and acquisition of knowledge into meaningful context for each child. Furthermore, DAP reflects educational values that include respect for children, democracy, support of self-esteem and self-control development, risk taking and active learning.

Developmentally Inappropriate Practices

The statement also provided in chart form examples of both appropriate and inappropriate practices for a number of features including, curriculum goals, teaching strategies, guidance of socio-emotional development, language development, and literacy, and cognitive development. For example, reliance on standardized testing; rote learning; direct teaching of discrete skills; prolonged seatwork for children and separating content areas with few hands-on experiences are inappropriate practices. In addition, worksheets that treat literacy in a vacuum, devoid of any spontaneity and real meaning leaving children bored were also considered 'inappropriate.'

There are practices that are clearly inappropriate for early childhood professionals - use of physical punishment or disparaging verbal comments about children. Teachers who use developmentally inappropriate practices (DIP) keep order by punishing students for unacceptable behaviour and offering extrinsic rewards for obedience. Wolfgang (2001) asserts that such behavioural techniques, which shape children's surface behaviours without placing the behaviours within a developmental context, may interfere with the child's developmental needs and cause much harm.

Burts et al. (1993) considered less appropriate classrooms as being ones where subject matter is taught as separate subjects and at scheduled times and whereby language is presented through worksheets and there is more stress on instruction in isolated skill development for most of the day. Time for play was also limited. Burts et al. (1992) noted that paper-and-pencil activities may have more negative consequences for males, since boys generally are less skilful at paper-and-pencil activities and they seem to enjoy them less than girls.

In conjunction with the International Reading Association-IRA, the NAEYC (1998) published its position statement specifically challenging pre-first grade reading instruction. Their statement focused on current issues and concerns about appropriate and inappropriate literacy practices. The statement recommended that early childhood teachers understand the developmental continuum of reading and writing and be skilled in providing a variety of strategies to assess and support individual children's development and learning across the curriculum. Early childhood teachers should also understand children's social and cultural background particularly when children are learning a second language. For example, formal reading instruction is a good example of inappropriate practice. Furthermore, engaging preschoolers in writing, even if the products do not conform to conventions of writing is considered appropriate and so is reading to children daily.

It included the fact that although letter/sound relationships and accurate word identification are basic components of the process of becoming literate, they need not assume a primary position at the expense of reading or writing meaningful and authentic text. In fact, knowledge gained from environmental print and repeated storybook readings, rather than attention to letters and letter/sound correspondence in isolation from familiar print, matches more closely the developmental level of the emergent reader and writer.

Debate

In spite of its constructivist approach, DAP continues to generate a lot of debate that dominates the research literature. Jipson (1991) through examining classroom journals and personal narratives of 30 early childhood educators, argued that DAP ignores the cultural variation when deciding what constitutes 'appropriate'. Lubeck (1998) challenged the view that DAP is for everyone suggesting that the

world is becoming more complex and interdependent which makes it harder to imagine that a simple solution exists that will fit everyone. She called for creating communities of practice, collaboration and cooperation so that these different views become a resource for new understandings.

Delpit (1988) went on to suggest that the very insistence that there is one right way can itself serve to 'silence' those who have another opinion. She adds that children from low socioeconomic backgrounds may need structure and conformity in order to succeed in the mainstream culture. Delpit (1995) went further to claim that the kind of exploratory learning advocated by the NAEYC is a luxury that children in poverty cannot afford and is mismatched with the teaching styles and goals of economically disadvantaged families. Low-income parents actually favour basic skills over exploration and creativity because of their belief that basic skills are necessary for success in school and in the dominant culture.

Kessler (1991) argued that by relying solely on child development theory; the statement obscures the political and philosophical issues involved in curriculum decisions. These views along with others drew attention and generated discussion about early childhood practices.

In defence of 'appropriate' practices, Gestwicki (1999) elaborated on the term. She suggested that it is misleading to place DAP on the good side and developmentally inappropriate practices (hereafter referred to as DIP) on the opposite side. These two are not two opposite poles but they are variations on a continuum. It may be true that some children will need more adult guidance and direct instruction, but in a DAP classroom that academic content is presented by integration with other classroom experiences. The claim that few skills are taught is one such misconception. Teachers do teach skills but the processes used and application of

skills are done in more authentic instruction and assessment cycles than in drills and worksheets or flashcards.

This is particularly true when children are engaged in literacy activities. From a DAP perspective; children would be encouraged to write using whatever letters they know. At first, they may only know the letters of their names, but as they learn more about the sound/symbol relationships and learn letters, they will incorporate these symbols into their writing. This contrasts with a traditional classroom where children are not encouraged to use the information they presently know, but are expected to wait until they know all the letters and all the sound/symbol relationships before they write.

Wasik (2001) suggested teaching the alphabet within developmentally appropriate practice guidelines, including beginning with the familiar, creating a context linking alphabet knowledge to reading/writing, providing writing opportunities, and using direct instruction when appropriate.

Instructional practices for beginning readers and writers have changed dramatically in the past fifteen years. There is less emphasis on the teaching of skills in isolation and practice drills. Therefore, there is a call for real literature and authentic writing experiences that would replace the myriad of worksheets that are so often used in kindergarten classrooms. The use of big books and shared reading experiences must abound in the early childhood classroom. Furthermore, writing instruction is no longer limited to handwriting exercises.

Elkind (1989, p.115), a foremost spokesman for the preservation of childhood clarified the use of the term 'appropriate' by stating that a developmental approach to education does not deny the importance of acquiring basic skills knowledge.

“The difference between the two approaches is a matter of which acquisition comes first.... From a developmental perspective, the creation of curious, active learners must precede the acquisition of particular information.... To put the difference more succinctly, the developmental approach seeks to create students who want to know, whereas the psychometric approach seeks to produce students who know what we want.”

Figuring out what does or does not constitute developmentally appropriate practice requires more than debunking the myths related to DAP. It involves teachers looking at every practice in context and making judgments about each child and the environment in which he or she is functioning (Pollard, 2001).

An outcome of the debate included considerable revision of the statements on DAP (Bredekamp & Copple, 1997). For example, the 1987 statement marked ‘inappropriate’ the following literacy position; “isolated skill development such as recognizing single letters, and reciting the alphabet are inappropriate practices. Furthermore, activities designed solely to teach the alphabet, phonics, and penmanship are much less appropriate (Bredekamp, 1987, p.55)”. The statement also noted that the typical formal reading and writing instruction of first grade is inappropriate for young children (Bredekamp, 1987) and so are worksheets that dominate the curriculum in kindergartens.

The 1997 revised statement suggested more of a both/and approach rather than an either/or approach. It indicated that “children have opportunities to develop print awareness.... and understanding of the various uses of the written word, while learning particular letter names and letter-sound combinations and recognizing words that are meaningful to them.” (Bredekamp & Copple, 1997, p.131)

Charlesworth (1998) added that DAP is for everyone and cites teachers from diverse ethnic groups and from low socioeconomic status- SES who asserted that DAP worked in their classrooms. Similar findings reported by Burts et al. (1993) supported developmentally appropriate practices for low SES children. Therefore, DAP works with the child's culture not against it (Charlesworth, 1998). Others like O'Brien (1996) concluded that there is no one set of DAP for every child. DAP needs to be considered in light of the culture, background, and other social issues.

Thus, DAP offers a balance between child control and teacher control (Wardle, 1999). Some useful skills like letter/word recognition may be effectively taught using didactic methods. Furthermore, Stipek et al (1995, p.220) suggested that "the debate about appropriate early childhood education be framed in less black and white terms than it is currently often framed in the literature". Furthermore, it is important to remember that DAP is not a prescription for how and what to teach "...rather, it is a framework, a philosophy, or an approach to working with young children" (Bredekamp & Rosegrant, 1992, p.4).

DAP has influenced both the academic focus with a more developmental orientation and has begun to inform the practice of teachers in the primary grades as well. Dunn and Kontos (1997) looked at the prevalence of DAP, teachers and parents views on DAP and the way these views influence teachers' practices and children's development. Their findings revealed that DAP is not the norm. Up to one third to one fifth of the programmes they studied exemplified DAP. Furthermore, though teachers endorse it, they struggle with implementation since they and the parents may not agree on the value of DAP (Dunn & Kontos, 1997).

To examine the extent of developmentally appropriate practices in kindergarten, Bryant, Clifford, & Peisner (1991) observed classrooms and found that

88% of the classes are involved in teacher-led activities. The use of ditto sheets and whole group work is dominant in about 83 % of the classes (Bryant et al., 1991).

Research on the Outcome of Different Programmes

Since its publication in 1987, several researchers have investigated the effects of DAP programmes on children's social, emotional, and cognitive achievement as well as teachers' implementation.

Diverse dependent measures have been studied, including child stress, interpersonal reasoning, and motivation for learning.

Social-emotional Outcome

Earliest studies on social-emotional development outcomes of different types of programmes showed that children in child-centred programmes perform better than those in direct instruction. In Hyson et al. (1990), preschool children in child-initiated programmes showed lower levels of test anxiety than children who were enrolled in academic programmes, regardless of parents' preferences for classroom approaches.

Instructional techniques that emphasize drill, worksheets, and pre-academics, while minimizing child choice and decision making, lead to higher levels of child stress (Elkind, 1986). Burts et al (1990) found that children in developmentally inappropriate kindergartens evidenced more stress behaviours than children in developmentally appropriate programmes.

With a larger sample of 204 kindergarten children, Burts et al, (1992) reported higher stress levels in developmentally inappropriate kindergartens for boys who are African American and from low SES, but not for girls. The boys stress behaviour was evident in inappropriate classrooms during whole group, waiting, and group transitions. In teacher-directed programmes there was emphasis on academics and a

negative social climate (Stipek, Daniels, Galluzzo, & Millburn, 1992). In such programmes, it is unlikely that there will be positive effects on children.

Compared to children whose kindergarten experience emphasized child-initiated learning, primary-grade teachers rated children from didactic, teacher-centred kindergartens lower in conduct and work-study habits, and perceived them to be more distractible, less willing to follow directions, and less pro-social. Moreover, first graders who were taught by teachers who had developmentally appropriate beliefs and practices were reported to have positive social skills as a result (Jones & Gullo, 1999).

Cognitive Development Outcome

Studies on cognitive development and academic achievement of children, (Marcon, 1992) showed that children in child-initiated classrooms exhibited better verbal skills and had more positive progress reports than those in teacher-directed classrooms or middle-of –the-road programs. However, children in child-centred and teacher-directed had similar math achievement. The ‘middle of the road classroom’ according to Marcon (1992) was detrimental to children, as children were found to be significantly lower in language, social and motor development, as well as their overall adaptive functioning and mastery of basic skills.

A study conducted by (Hyson et al. 1990) found no differences in terms of academic achievement. However, they reported that children in DIP classrooms were less creative and had more negative attitudes about school and scored higher on academic tests. Those children did not maintain the gains throughout their kindergarten year. In Hirsh-P, Hyson, & Rescorla (1990) study, children in DAP classrooms had higher measures on creativity and better language.

Frede and Barnett (1992) examined the effects of DAP on preschool children from low SES backgrounds and their later achievement. Their findings demonstrated that DAP for those children contributes to increased academic achievement at first grade. Similar findings by Burts et al (1993) demonstrated in a study of 166 first graders whether they attended a kindergarten, which was characterized as being DAP, or DIP. The findings show that those who came from DAP classrooms had higher reading averages than those in less appropriate programmes. In addition, gender, particularly males, and student's socioeconomic status were also found to affect overall averages and averages in each area.

Burts et al. (1993) concluded that children from low SES who are coming out of less developmentally appropriate kindergarten were off to a poorer educational start than any other group.

Furthermore, Jones and Gullo (1999) examined the effects of teachers' developmentally appropriate beliefs and practices on 293 first graders social skills and academic achievement in language and mathematics. They found that first graders taught by teachers with developmentally inappropriate beliefs had higher language achievement. Students whose teachers' practices were neither appropriate nor inappropriate had higher mathematics achievement.

Stipek et al. (1995) found that preschool and kindergarten children from highly structured programs performed better on standardized letter/reading achievement tests than children from child-centred programmes. However, those differences were not found on tests of mathematics achievement. According to Stipek et al. (1995), the justification for that could be that direct instruction of letter/sound relationship is beneficial for children.

Motivational Outcome

Motivational outcomes also vary as a function of instructional practices. In studying the effects of different instructional approaches on children's motivation and achievement, Stipek et al (1995) found that children in child-centred programmes were favoured on most of the motivational related measures. Children in child-centred programmes rated their abilities higher, had higher expectations for success on school-like tasks, selected more challenging math problems to complete, showed less dependency on adults for permission and approval, evidenced more pride in their accomplishments, and claimed to worry less about school.

There were two important recommendations from this study. Stipek et al. (1995) noted that the simple dichotomy between teacher-directed and child-centred is not adequate for characterizing the complexity of instructional practices in early childhood, and recommended that further research combining direct instruction with high nurturance is needed. There are varieties of child-centred approaches, and research shows they are not all equally effective. Yet at the same time, these researchers (Stipek et al, 1995) cautioned that early academic gains in reading skills in these classrooms 'come with some costs' that could have long-term negative effects on achievement.

Lilian Katz, co-director of the ERIC Clearinghouse on Elementary and Early Childhood Education and a professor Emerita of Early Childhood Education at the University of Illinois (Urbana-Champaign) called the drill in the basics of literacy and numeracy a sort of 'academic boot camp' approach to preschool teaching. She further suggested in her ERIC digest (1999) that "it is clearly not useful for a child to learn skills if, in the process of acquiring them, the disposition to use them is lost. Especially in the case of reading, comprehension is most likely to be dependent on

actual reading and not just on skill-based reading instruction. On the other hand, acquiring the disposition to be a reader without the requisite skills is also not desirable". Results from longitudinal studies suggest that curricula and teaching should be designed to optimize the simultaneous acquisition of knowledge and skills and desirable dispositions and feelings.

It is also important to consider what young children should or should not do at a particular time in their development (Katz, 1999). In many preschool programs and kindergartens, for example, young children are instructed in phonics and expected to complete worksheets and recite rhymes and other texts from memory. As Katz (1999) concluded, "Most young children willingly do most things adults ask of them. But their willingness is not a reliable indicator of the value of an activity. The developmental question is not only, 'what can children do? ,' but also, 'What should children do that best serves their development and learning in the long term?'"

To sum up, a growing body of research supported the efficacy of DAP to enhance learning. The studies have found positive outcomes for children in academic (Bryant et al., 1990; Marcon, 1992), social (Burts, et al., 1990; 1992; 1993), and motivation (Stipek et al., 1995). However, findings on academic outcomes remain somewhat conflicting (Stipek et al., 1995).

Just as the concern about appropriate instructional practices has grown among researchers so too has the interest in understanding teachers' beliefs about instruction (Clark & Peterson, 1986; Isenberg, 1990; Pajares, 1992; Spodek, 1988).

Teachers' Beliefs

The interest in teachers' beliefs was the result of paradigm shifts in the conception of social science research. The 1970s witnessed changes that were

influenced by radical ideas, Marxism, feminism, and anti-racism and thus the influence of methodological approaches to research (Hammersley, 2002). In the 1980s, there was a growing interest in ethnography and other qualitative approaches among different disciplines, such as psychology, political science, anthropology, and education.

The research on teaching shifted from a product-process approach to one that examined teacher's cognitive processing which was termed teacher thinking. Fang (1996) notes that previous research on teaching has concerned itself with causality and was conducted under laboratory or contrived conditions and describes it as follows:

[Such] research assumed that the relationship between teachers' actions and their observable effects is linear and unidirectional. Data analysis was relatively decontextualized and objectified in a search for positive, generalizable principles which can be used to formulate teaching and learning theories. Statistical procedures used in these studies were often correlations and analysis of variance. (p.48)

Fang (1996) added that contextual factors, administrative support and collegial attitudes, school climate, children's abilities and backgrounds, and government regulations can have powerful influences on teachers beliefs' and affect classroom practice.

Dan Lortie (1975) studied why people become teachers and what experiences affect learning to teach. He wrote extensively on how individuals develop beliefs about teaching that is based on their own experiences as students and he termed it 'apprenticeship of observation'. Lortie added that as children, those teachers were in

different types of apprenticeship. Some of them were casualties of bad instruction; others grew up with well- intentioned teachers. Lortie (1975) asserted that these experiences are bound to affect teachers' beliefs and values.

Richardson (1996) pointed to the importance of understanding the influence of teacher's beliefs in learning to teach and teaching. Furthermore, beginning teachers bring with them to teacher education programmes a plethora of often tacit and unexamined beliefs about schooling, teaching, learning and the self as teacher (Bullough & Gitlin, 2001).

Often, pre-service teachers select attributes and practices of their own former teachers and synthesize them into an idealized image or model of the teacher they want to become (Ross, 1987 cited in Cole & Knowles, 1993).

In addition, people who enter formal education programs bring with them many expectations that represent long-held beliefs about teachers' roles and practices, and about classrooms and schools. These preconceptions coupled with their pre-service education experience, come together in the creation of images and expectations of practice which strongly influence pre-service teachers' actual experiences of and in classrooms and schools (Cole & Knowles, 1993).

As personally held mental constructs, beliefs, unlike knowledge, do not require community consensus or agreement to establish their validity (Nespor, 1987).

Clark and Peterson (1986) noted that teachers' beliefs guide their personal thoughts and actions as well as their planning and decision-making. These beliefs are constructed from experience that an individual employs, often unconsciously, to interpret new experiences and information and to guide action (Pajares, 1992).

In their own classrooms, teachers create their own beliefs and reality (Kagan, 1992; Rust, 1994) and these beliefs become the foundation of their professional

behaviour, which Spodek (1988) termed 'implicit theories'. He suggested that these implicit theories that teachers hold are related to the type of teacher preparation, the personal nature of teaching and teacher's isolation from colleagues.

Kagan (1992, p164-165) acknowledged that the practice of classroom teaching remains forever rooted in personality and experience and that learning to teach requires a journey into the deepest recesses of one's self-awareness, where failures, fears, and hopes are hidden. Therefore, teachers' thinking and beliefs are integral to understanding the full picture of teaching (Isenberg, 1990, Richardson, 1996).

Connelly and Clandinin (1988) have used the term personal practical knowledge to highlight the teachers' knowledge of a classroom. This knowledge is composed of both theoretical and practical aspects. The theoretical relates to learning, teaching and curriculum whereas the practical deals with the knowledge of the schools they are in and the student population. These aspects are blended in by the personal background and characteristics of the teacher and expressed by him/her in particular situations.

In addition, Connelly and Clandinin (1988) reminded teacher educators about the need "to tell our own stories as we live our own collaborative researcher/teacher lives" (p. 12) and encouraged researchers to acknowledge the power of story in furthering an understanding of teacher knowledge.

Several scholars have examined the relationship between beliefs and practices. Fang (1996) described in his review of research on teacher beliefs and practices two competing theses (consistency versus inconsistency). He suggested that an accurate portrayal of teachers' beliefs, teaching behaviours and contextual factors will contribute to a more complete picture of teachers' cognitive activity, and ultimately improve teaching effectiveness.

Various approaches have been taken by researchers in their attempts to understand teacher beliefs.

Scholars like Feinman-Nemser and Floden (1986, p. 507) have turned their attention to teachers' descriptive beliefs and discussed the difficulty in defining the components of a teaching culture:

It is tempting to assume that teachers share a uniform teaching culture. The assumption of cultural uniformity is, however, untenable. Teachers differ in age, experience, social, and cultural background, gender, marital status, subject matter, wisdom and ability. The schools in which they work also differ in many ways, as do the group of students they teach. The problem facing the researcher is how to design studies and draw inferences in light of this diversity.

One of the more common approaches to studying teachers' beliefs is the use of Likert-type questionnaires to which teachers indicate agreement with direct statements on beliefs. Another approach is that of forced-choice options that require teachers to endorse or reject a particular option. These approaches along with dialogue journals and ethnography have led to a flurry of research on teachers' beliefs and practices.

DAP and Teachers' Beliefs and Practices

A great deal of attention in research has focused on teachers' knowledge about DAP, the development of their attitudes, beliefs, and practices, their educational background, years of experience as well as factors that facilitate or hinder their practices. These beliefs have a direct impact on teachers' implementation of programs and their work with young children.

The majority of research about DAP took place within preschool and kindergarten classrooms (Charlesworth et al., 1991; Charlesworth et al., 1993; Hyson et al., 1990; Smith & Shepard, 1988; Snider & Fu, 1990; Stipek et al., 1992). Recently, researchers have begun to examine early primary grades as well (Buchanan, Burts, Bidner, White, & Charlesworth 1998; McMullen, 1999; Vartulli, 1999). Other studies on primary grades were mainly to evaluate the long lasting effects of participation in developmentally appropriate preschool or kindergarten programs on children's achievement in first and second grade.

Relationship between beliefs and practices of teachers

Several researchers have examined the relationship between teachers' beliefs and practices. Previous research has shown small to modest correlations between teacher beliefs and developmentally appropriate practices (Bryant et al, 1991; Charlesworth et al., 1991; Charlesworth et al., 1993; Oakes & Caruso, 1990; Stipek & Byler, 1997; Vartulli, 1999). McMullen (1997) examined the beliefs and practices of 20 preschool and primary teachers. Her findings showed that DAP beliefs overall were strongly correlated with practices.

Smith and Shepard (1988) in their study of teachers' beliefs and practices concerning kindergarten readiness and retention found that congruence between beliefs and practices existed. Wing (1989) found that congruence between beliefs and practices existed when teachers had a clear set of theoretical principles and had administrative support. Charlesworth et al. (1991) found consistency between teachers' beliefs and instructional practices. Developmentally appropriate beliefs were moderately correlated with DAP whereas there was a stronger relationship between Developmentally Inappropriate Beliefs (hereafter referred to as DIB) and DIP. Charlesworth et al. (1993) conducted another study with a larger sample of 204

kindergarten teachers. The findings were similar. In both studies kindergarten teachers had more appropriate beliefs than actually practiced them, possibly because of situational factors.

By contrast, Doliopoulou (1996) found that there was a high correlation between DAB and DAP of Greek kindergarten teachers while moderate correlation was evident between DIB and DIP. However, Jones and Gullo (1999) found inconsistency between first grade teachers' beliefs and practices. They reported that teachers are more likely to say that they have beliefs that are consistent with DAP but do not use DAP.

According to Stipek et al. (1992), teachers' beliefs and practices fall along a continuum. A majority of teachers use some combination of instructional techniques in their classrooms rather than adhere to one theoretical approach (Marcon, 1992). Teachers' beliefs were also found to be more developmentally appropriate than their practices (Vartulli, 1999).

Researchers acknowledged the need to understand more about teachers' knowledge, how they change and how they relate to the structural, organizational and cultural contexts in which they work (Wood & Bennett, 2000). They looked at how teachers' practices may be subject to change and modification through such influences as experience, curriculum goals, and in-service courses as well as other factors that influence how teachers teach. These factors were school or classroom characteristics and teacher characteristics (Buchanan et al., 1998; Stipek & Byler, 1997; Vartulli, 1999). In addition to these characteristics, some studies looked at other influences such as parents, collegial and administrative support as well (McMullen, 1999; Rusher et al., 1992).

School Characteristics as Determinants to Teachers' Beliefs and Practices

School characteristics had to do with class size and grade level and included also school size, location, and the socioeconomic status of the school.

Class Size

The issue of class size and its effect on student achievement and teachers views has been a subject of a lot of research. Bredekamp and Copple (1997) recommended that the class size be 18 children to one adult and no more than 25 children with two adults. Frede (1995) suggested that smaller class size may be related to more developmentally appropriate practice. In some studies, class size could not predict developmentally appropriate practices (Buchanan et al., 1998).

Some studies noted that cultural values had the greatest effect on class size (Peach, 1994; Stevenson & Stigler, 1992; Tobin, Wu, & Davidson, 1989). Jin and Cortazzi (1998) found that the success in teaching large classes in China was partly due to the interactive techniques in classroom dialogue, whole-class scaffolding and peer monitoring. The main reason was also due to the underlying culture of learning that encompasses collectivist and Confucian values. In large classes, Jin and Cortazzi (1998) noted that there is a greater responsibility on the part of the learner in learning how to learn.

Similar findings demonstrated how large class size functioned effectively in non-Western cultures like Japan. Management of large group of preschoolers involved teaching techniques that included delegating more authority to children, intervening less in children's fights and relying more on the use of peer-group approval (Peach, 1994; Tobin, Wu., and Davidson, 1989).

By contrast, Doliopoulou (1996) found that teachers who taught large class sizes tended to have more inappropriate beliefs. Teachers in small classes tend to have

more DAP (Buchanan et al, 1998). In Bryant et al. (1991), no significant effects were found for class size.

Grade Level

Researchers looked at teachers of different grade levels from pre-kindergarten to third grade. Beliefs were found to be significantly more appropriate than practice at every grade level (Buchanan et al., 1998; Vartulli, 1999). As the grade level increased the frequency of self-reported developmentally appropriate beliefs and practices decreased. The same held true for observed practice. Vartulli (1999) concluded that teachers in first, second, and third grade did not rate developmentally appropriate practices as high as preschool and kindergarten teachers. The findings are also similar to Buchanan et al (1998) who examined the beliefs and practices of 277 teachers of first, second and third grade and found that agreement with DAP varies by grade level.

However, Stipek and Byler (1997) found that teachers in pre-kindergarten and kindergarten adhere to one set of instructional strategies whereas first grade teachers endorse a more diverse set of instructional strategies.

Socioeconomic Status of the School

The socioeconomic status of the school is another school characteristic that influenced teachers' beliefs and practices. Teachers in low socioeconomic schools rated knowledge as a more important goal of early childhood and agreed more with a basic-skills orientation (Stipek & Byler, 1997). Stipek et al. (1992a) noted that parents with less education tend to strongly endorse didactic methods of instruction for young children and that tendency appears greater for low-income and minority parents. In another study that looked at programs serving poor and middle class children, Stipek et al. (1992a) found that poor preschoolers did not receive poor

quality programs, instead they were more likely to be in the kind of child-centred program but they cautioned about generalizing the findings since their sample was small.

Location of the school also appeared to be a factor influencing beliefs and practices. According to a study by Rusher, McGrevin, & Lambiotte (1992), teachers and principals in urban and rural areas agreed more with an academic emphasis than those in suburban schools. Teachers' perceptions of the children in those areas are likely to influence decisions about classroom activities and instructional strategies.

Teacher Characteristics as Determinants to Teachers' Beliefs and Practices

Teacher characteristics were examined in research to determine the degree to which teachers embrace the field's currently held "best practices". There were teacher personal characteristics such as age, gender, and personality. Another variable had to do with teachers experience and education in teaching, salary pay, and the extent they believed they had influence on their classroom curriculum. Some looked at teacher self-efficacy and locus of control to determine whether teachers felt they were making a difference while others examined the external influences such as parents, principals and other contextual influences.

Teacher Level of Education

Several researchers have examined whether the general level of education, specialized training in early childhood, and experience were related to the quality of teachers' interactions with young children (Berk, 1985; Cassidy Buell, Pugh-Hoese, & Russell, 1995; Kontos & Wilcox-Herzog, 2001; McMullen, 1999; McMullen & Alat, 2002; Snider & Fu, 1990). The research literature on preschool settings suggested that teachers who have a high level of education are more likely to implement developmentally appropriate practice. However, research could not

establish that relationship in primary grades (Buchanan et al., 1998; Stipek et al., 1992; Vartulli, 1999).

The earliest studies on the relationship between teacher education and teacher behaviour toward children was conducted by Berk (1985). She found that teachers with college degrees are more likely than those without a degree to encourage children, make suggestions to them and promote children's verbal skills.

Similar findings were reported in Kontos, Howes, & Galinsky (1996) in which the level of formal schooling was significantly positively related to teachers' sensitivity and involvement with young children. There is a positive correlation between the level of education a teacher has and the self-reported developmentally appropriate belief scores. Teachers with a bachelor's degree or higher more strongly adopt DAP as a philosophy than their colleagues with less education (McMullen and Alat, 2002).

In a study examining the relationship between in-service training and program quality of 366 programs implementing High/Scope curriculum for children from two and a half to six years of age, Epstein (1993) found that teachers with college degrees, particularly those with early childhood degree implemented better quality programmes than teachers without degrees. Teachers with early childhood degrees offered better quality programmes than teachers who lacked specialized preparation and were better at supporting creative and social skills. Furthermore, holders of an early childhood degree were found to be less punitive and warmer towards children (Kontos and Wilcox-Herzog, 2001).

Teachers who either had an academic background in early childhood education or child development, or who had experience working in a preschool, were

found to be significantly more DAP in their actual classroom practices than those who had an elementary education degree and no preschool experience (McMullen, 1999).

Buchanan et al. (1998) reported that teachers who had an early childhood degree use DIP less frequently than those with an elementary degree. Vartulli (1999) reported that teachers with an early childhood degree expressed attitudes aligned with DAP more than teachers who had an elementary education major. These belief measures were moderately correlated and observed practices supported what teachers reported as their beliefs and practices. Similar findings about early childhood degree versus elementary education degree were reported by Smith (1997) in which he noted that student teachers beliefs vary by major. In particular, those who only majored in elementary education with no early childhood course work reported higher agreement with traditional practices.

Recently, pre-service teachers' beliefs about primary classroom practices have been examined. Of particular interest were the similarities and differences between the types of teacher education programs that were offered to student teachers majoring in early childhood and elementary education (File & Gullo, 2002). Their findings reported that those with an early childhood degree were more aligned with the DAP philosophy than students in elementary education major. However, those in early childhood were similar to elementary majors in their use of less developmentally appropriate behaviour management strategies.

Attempts at trying to explain the difference between elementary education teachers and early childhood teachers can be explained in terms of the type of training that those teachers receive. For example, historically most of the early childhood education programs were housed in departments of psychology, human development, and family studies whereas elementary education programs were in the education

department (Bredekamp, 1996). Furthermore, the courses taken in early childhood programs are more aligned with the field of psychology. In addition, elementary education programs prepare teachers to teach in settings where the values of conformity, uniformity, and accountability are underscored leaving them with little flexibility.

Specialized Courses/Training

Specialized education whether through college course work or training has an effect on the beliefs and practices of teachers of young children. In their quasi-experimental study, Cassidy et al. (1995) showed that there is causality between specialized education and practice. Those researchers found that teachers in their group demonstrated significantly more developmentally appropriate beliefs and practices after they were enrolled in an associate degree program in early childhood and completed 12-20 credit hours of course work. In addition, they found that the majority of the course work around 87% focused on child development or early childhood education.

On the other hand, Berk (1985) was unable to show that specialized education was superior to a degree in a non-child-related field. Although knowledge of children is necessary, it does not directly imply that good teaching will take place (Shulman, 1990). A lot has to do with teachers' theoretical endorsement of a behaviourist or a constructivist view about children, their background and ability (Daniels & Shumaw, 2003).

In her study on the importance for teachers to possess child development knowledge, Katz (1996) cited research that was done in England in 1994 as part of the Early Childhood Research Project. In that project, principals were asked about what they thought was the single most influential contributor to the professional

development of practitioners who work with children under eight years of age. Principals named 'knowledge of child development'. However, in acknowledging the value of child development knowledge as a prerequisite for teacher preparation, educators need to question which body of knowledge of child development is most relevant and useful in practice (Katz, 1996).

Teachers who receive training in DAP tended to use it moderately (Dunn & Kontos, 1997). However, the results reported by Snider and Fu (1990) showed that teachers who had training in early childhood education and took child development courses had greater knowledge of DAP. In addition, teachers who attended in-service training on DAP and used journal reflection also used DAP in their classrooms. Therefore, pre-service and in-service training according to Snider and Fu (1990) are important contributors to the prevalence of DAP in early childhood classrooms. Their findings stressed the fact that the level of education degree whether it is a high school or bachelor's degree was not a significant factor in the DAP scores but training is.

Several researchers have suggested that knowledge about child development strongly predicts DAP (Buchanan et al., 1998; McMullen, 1999; Stipek & Byler, 1997). McMullen (1999) found that teachers who had an academic background in early childhood education or child development or even experience in a preschool tend to be significantly more aligned with DAP in their practices than those who had elementary education but no preschool experience.

An important observation made by Stipek et al. (1995) where she and her team found that teachers in didactic programs tend to have lower education.

What these studies have demonstrated is that the level of education of teacher contributes to more positive outcome for children in terms of interaction and quality of practices. It is important to note that much of these studies were correlational and

did not allow for the determination of the direction of the effects (Kontos & Wilcox-Hertzog, 2001). As for specialized education, it may be causally related to overall classroom quality and correlated with effective teacher behaviour. The limitation of research on specialized education is that it failed to recommend which content is most important, who is likely to benefit from education, and what pedagogical methods were most effective in changing beliefs and behaviours of teachers (Kagan & Neuman, 1996).

What the research has succeeded in, was identifying the factors that influence philosophical beliefs adopted by teachers but has not determined with absolute confidence whether specialized courses can lead to better practices (McMullen & Alat, 2002).

Years of Experience

Teachers' years of experience may influence their beliefs and practices. The research on the relationship between teacher experience and their classroom practices were mixed. Some studies have established a relationship between experience and developmentally appropriate practices (Vartulli, 1999) while others did not find such a relationship (Buchanan et al., 1998).

New teachers were found to talk the talk but not walk the walk. This is due to the fact that they lack the resources and the coping skills (McMullen, 1999). Novice teachers are in the survival stage and haven't had the chance to implement what they have been taught. Beginning teachers are more concerned with the personal and social dimension of teaching rather than with their instructional ability (Rust, 1994). Furthermore, Rust (1994) noted that contextual constraints may lead to the development of beliefs that are substantially different from those beliefs held prior to beginning teaching.

The teacher's years of experience were a significant variable in the Buchanan et al. (1998) study. They found that newer teachers had more developmentally appropriate practices than those with more teaching experience. This was due to the fact that newer teachers have been exposed to DAP in their courses.

What's more, the difference in the strength of the DAB between novice and veteran teachers had nothing to do with the years of experience but rather with the training that veteran teachers received. McMullen (1997) added that it is the quality of the experience and not the quantity of it that strengthens DAP.

In Vartulli's study (1999), teachers with less teaching experience were observed to have more developmentally appropriate practices. This was partly due to their exposure to DAP in their courses. Moreover, teachers with fewer years of experience tended to be in didactic programs (Stipek, et al., 1995).

Brousseau et al (1988) found that years of experience had a significant effect on DAP beliefs in early childhood professionals but not in the way one might expect. The more experience the teachers in his study had, the more likely they were to believe that all students should be held to a common standard, and the more likely their sense of efficacy grows weaker.

In their review of research on teacher formal education and teaching experience, Kontos and Wilcox-Hertzog (2001) concluded that teachers' experience cannot be consistently linked to overall quality of classroom or effective teacher behaviour. Similar findings were reported in Bryant et al., (1991) where they examined teachers of 103 kindergarten classrooms and found that beliefs and knowledge about DAP was unrelated to teacher education or experience.

Contextual Influences on Teachers

High personal teaching efficacy and internal locus of control were significantly related to high DAP beliefs and predictive of DAP practices (McMullen, 1997). Teachers with a low sense of teaching efficacy used less DAP than those with high self-efficacy. Teachers who felt that they were making a difference in the lives of their students and had more confidence in themselves were more effective at practicing DAP (McMullen, 1999).

Teachers who felt they have less influence on their classroom tended to have more DIP (Buchanan et al, 1998). Oakes and Caruso (1990) noted that teachers in kindergarten rarely use DAP and that those who believed in shared decision making and autonomy for children were more likely to use DAP than teachers who believed in controlling the class.

Research has also suggested parents and school principals influenced teachers' practices (Stipek & Byler, 1997; Vander Wilt & Monroe, 1998). Principals, particularly males, tend to be less supportive of developmentally appropriate practices than teachers (Rusher et al., 1992). As for parents there was some evidence to indicate that parents with low incomes and relatively poor education are more likely to endorse rigidly structured, basic skills-oriented programs for young children (Stipek et al., 1992; Stipek & Byler, 1997).

Doliopoulou (1996) on the other hand noted that parents tend to influence teachers towards making their Greek kindergarten children engaged in more developmentally appropriate practices. Factors that had more influence on the practices of Greek kindergarten teachers were the government regulations, and the parents.

McMullen (1999) found that the discrepancy between beliefs and practices was related to environmental and work stress factors. If the teacher felt no support from parents, colleagues, or administrators they were less likely to engage in DAP. In addition, McMullen (2001) interviewed twelve teachers who were chosen from an earlier study done on 144 k-primary teachers. Teachers considered parents, the curriculum, lack of resources, and children as barriers to their implementing appropriate practices.

In a longitudinal study (Rust, 1994) that examined the beliefs and practices of two beginning teachers in their first year of teaching, findings suggested that new teachers are affected by the conditions of the workplace and by the degree of acceptance from the principal.

Cross-Cultural Research on Teachers and DAP

Several researchers have examined the philosophy of DAP in different cultures. Cross-cultural research has examined the different views held by teachers about early childhood, parent-teacher relationship, nature of teaching, and teacher-child interaction (Carlson, Zvagina, & Sjolom, 1997).

Research conducted by Carlson et al., 1997 through in-depth interviews with sixteen early childhood teachers from each of the three countries showed the following: US teachers voiced their need for parent support whereas in Sweden and Russia teachers saw themselves as the experts in providing information to parents and having better communication with parents. As for the values that teachers fostered, Swedish and Russian teachers emphasized group work and peer learning while US teachers focused more on individuality.

In addition, there were marked differences among teachers regarding their views about early childhood education. Swedish teachers spoke more about fostering

creativity and placing less emphasis on academics with a focus on project approach while Russian teachers assumed a more teacher- directed approach stressing the importance of obedience and preparation for labour force participation. US teachers had mixed views on the degree of control.

Another study surveyed teachers, administrators and parents of preschoolers to obtain an international perspective on DAP (Parmar & Hoot, 1995). The surveys included four countries: the People's Republic of China, Ecuador, Finland and the US. Results showed that administrators in both Finland and the US were almost in similar agreement with many of the DAP standards whereas administrators in China favoured subjects being taught separately and emphasized recitation and rehearsal of alphabets, and Ecuador administrators relied a lot on textbooks and workbooks. Another finding was that teachers in all those countries used more teacher-directed activities and relied on workbooks. Teachers in China and Ecuador taught in large classes and used tests more. As for parents, only those parents from Finland were the most supportive of DAP. Parents in the US, Ecuador and China preferred the use of workbooks and extrinsic rewards.

Other influences on teacher characteristics that have not been the subject of research and are relevant to this study are salary pay and role of religious beliefs in early childhood. Teachers in early childhood programs receive poor wages which would lead to higher turnover especially among better educated teachers who have other work alternatives that pay better.

Teachers' beliefs are also affected by the religious values they hold (Holloway, 1999). In her qualitative study on Christian and Buddhist programs in Japan, she noted that there are differences in how teachers in those schools provide instruction and interaction with children. Teachers in Christian schools provide more

free play, encourage creativity and cater to individual needs. On the other hand, Buddhist preschools use more teacher-structured activities with emphasis on direct teaching of skills and rote memorization.

To sum up the research review on the correlates of teachers' beliefs and practices, it can be stated that personal characteristics and educational background of teachers are important factors to examine. Additionally, the context of teaching that has to do with the type of students that teachers have, the class size, richness or lack of instructional resources, and the dominant views about the best way to teach are factors that influence how teachers teach.

Teachers generally use practices that are consistent with their beliefs. However, teachers' practices are less developmentally appropriate than their beliefs. Furthermore, teachers who use DAP have similar supports and barriers to their teaching as teachers who use DIP. Teachers who use DAP are more autonomous, have higher educational efficacy, and higher personal teaching efficacy than teachers who use DIP.

Teachers with certification in kindergarten or with early childhood training had more developmentally appropriate beliefs than teachers who did not have such training. The success of DAP rests on administrative support, teacher ownership for change, collaboration between administrators and teachers, and substantive training (Vander Wilt & Monroe, 1998). Research showed that environmental factors have an effect on teachers' practices. Successful teachers tend to be in supportive environments where their developmentally appropriate practices are encouraged by their colleagues, administrators and the parents of their students (Rust, 1994; Vander Wilt & Monroe, 1998).

Teachers' beliefs and practices vary for students of different socioeconomic backgrounds. Working class and poor children usually receive more drill and practice instruction where their tasks are redundant and highly structured. In addition, teachers with no early childhood training tend to align themselves with an elementary school philosophy that focuses on worksheets, testing, seatwork and academics.

Summary

This chapter has reviewed the history of early childhood education, the philosophies that have guided images of childhood, and the role of adults in the learning process. The chapter has described in detail the current trends in educating young children, DAP and cited the growing body of research on the outcome of such programmes on children that support the efficacy of DAP to enhance learning. Also presented is a summary of previous research findings on teachers' beliefs and practices as they relate to the currently held view of 'best practices' as well as their explanatory variables such as teachers and school characteristics.

Chapter Three

Research Methodology

This chapter provides an overview of the research methods used in data collection and the statistical methods employed in data analysis. It presents the research design, instruments and procedures utilized. The chapter examines the features of the selected schools and describes the background characteristics of the participants in the study. In addition, the chapter discusses the rationale for the use of specific statistical analyses and how these are used to interpret the data.

Study Design

This study attempts to discover whether a significant relationship exists between the developmental appropriateness of the beliefs and practices of Lebanese early childhood teachers. Furthermore, it seeks to explore teacher characteristics and school characteristics as factors influencing the beliefs and practices of teachers. There has been a considerable diversity of approaches to investigating teachers' beliefs.

Surveys are widely used in educational research for descriptive and explanatory purposes. The data obtained at a particular point in time can be used to identify relationships between events or variables (Cohen, Manion, & Morrison, 2000). Among the data gathering techniques in surveys is the use of questionnaires and interviews. Using self-administered questionnaires can help in gathering a broad range of information from a large number of respondents in a relatively short time and is cost efficient.

Some researchers (Fang, 1996; Kagan, 1992; Pajares, 1992) have highlighted problems in using only self-reported instruments. Yet, according to Pajares (1992,

p.327) the use of inventories can help to detect inconsistencies and areas that merit attention, but additional measures such as interviews, responses to vignettes and observation of behaviour should be included, if richer and more accurate inferences are to be made. Thus, there is a need to use a multi-method approach.

Since this study is dependent largely on self- report data through the use of self- administered questionnaires. These provide what is often called the 'hard data' (Verma & Mallick, 1999). Therefore, interviews and classroom observation are used as a consistency check for the self-reported beliefs and practices obtained from the questionnaire and as a supplementary method to corroborate the findings of the survey.

The use of semi-structured interviews makes it possible to examine in greater detail and in depth some particularly important aspects covered by the questionnaire or related topics that did not lend themselves to a questionnaire approach (Verma & Mallick, 1999).

In approaching observation, the aim is to produce descriptive information about a particular population of cases (Foster, 1996). In this case, it is the teacher's classroom life. It is only through observation of children and teachers as they function in a setting that one can judge the implementation of the curriculum, the tone of interpersonal interactions that take place and the responsiveness of the physical environment. Observation assists the researcher in understanding the meaning that people are constructing in their everyday situations (Foster, 1996; Walsh, Tobin, & Graue, 1993). The observation in this study helps in exploring whether self-reported practices are congruent with actual practices.

The observer may use checklists or field notes. Field notes contain a mixture of summary descriptions of events and some verbatim records of conversations. The

decision to use field notes is guided by the need to record those events that were relevant to the focus of the research questions (Foster, 1996).

Sampling Method

The study targeted private schools whose language of instruction is mainly English. This category represents about a third of the private schools, or some 350 schools. A purposive sampling method was used to select 21 schools. Despite the fact that this method may not be representative of the whole population and lack generalizability (Cohen et al., 2000), yet it can provide in-depth understanding of specific needs.

For the purpose of the study, schools were selected according to school size, i.e., number of students enrolled, and the socioeconomic status of the school's student population. In the process of selection, schools that represent different systems of education were included. To ensure confidentiality of information provided by the participating teachers, as pledged to them in writing by the researcher, selected schools will be referred to by alphabetic letters such as School A, School B, etc.

The socioeconomic status of the school's population was determined by the amount of the annual tuition fees paid by parents. 'Low' schools were defined as those schools whose annual tuition is less than 1000 dollars. As for 'high', it denotes schools that charge more than 3000 dollars per year. Schools whose tuition ranges between 1000-2000 dollars were considered as serving low to lower-middle income families while those between 2000-3000 dollars serve the 'middle' class families.

It is worth mentioning that some of the selected schools have been in operation for more than 100 years like Schools C & M. Five of the schools in the sample (Schools A, F, O, S, U) are part of a large educational institution that also has an education history that spans more than 100 years. The other schools have had

varied yet much shorter periods of operation. Table 3.1 presents a detailed description of the selected schools.

Six of the schools in the sample, or 26%, serve low-income families. In addition, five of the twenty-one schools (24 %) have both French and English programs while the rest have only English. Most of the targeted schools are in Beirut (52 %) and the suburbs (29%). The remaining schools are outside the Beirut area. Geographic distance, time and the prevalence of substantially more French schools than Anglo-Saxon schools in those areas are factors that limited the access to a greater number.

As for school size, it should be remarked that all the small schools in the sample (or 24 % of the total sample) are elementary schools that serve children preK-6. Small schools enrol up to 500 students and large schools have over 1500 students. As for medium size schools, the average number of students enrolled ranges between 500- 1500.

On the other hand, the data show a clear positive association between class size and socioeconomic status of the school. In the sample, schools that were considered as 'low' had on average larger class sizes of 30 students, while 'lower-middle', 'middle' and 'high' SES schools had 23, 20, and 19 students, respectively.

As for the participants, no sampling was employed to select them. All prek-k teachers in the selected schools, whose number was 149, fell into the survey sample.

Table 3.1- Description of the Selected Schools

School	SES	School size	Available grades	Location/ Region	Special features	Languages Available
A	Low	Small	Prek-6	Beirut	Religious, part of a large institution	English and Arabic
B	High	Large	Prek-12	Beirut	Secular, established in the early 1900's	English and Arabic
C	Middle	Medium	Prek-12	Beirut	Secular, established in the early 1900's	English and Arabic
D	Low	Large	Prek-12	Suburb	Religious, established in the 1980's	English, French and Arabic
E	Middle	Medium	Prek-12	South	Secular, established in the 1980's	English and Arabic
F	Low	Small	Prek-6	Beirut	Religious, part of a larger institution	English and Arabic
G	Middle	Small	Prek-6	Beirut	Secular, established in the 1970's	English and Arabic
H	Lower-middle	Small	Prek-6	Suburb	Secular, established recently	English and Arabic
I	Lower-middle	Medium	Prek-12	Suburb	Secular, established in the 1980's	English and Arabic
J	Middle	Large	Prek-12	South	Secular-established recently	English and Arabic
K	Lower-middle	Medium	Prek-12	Suburb	Religious, recently established	English and Arabic
L	Low	Medium	Prek-12	Beirut	Religious-part of an institution and a recent one	English, French and Arabic
M	High	Large	Prek-12	Beirut	Secular-founded more than 100 years ago	English, French and Arabic
N	Middle	Medium	Prek-12	North	Secular-started in 1996	English and Arabic
O	Middle	Medium	Prek-12	Suburb	Secular- started in 1993 and is part of a chain of schools	English, French and Arabic
P	Lower-middle	Medium	Prek-12	Suburb	Secular, recently established	English and Arabic
Q	Middle	Medium	Prek-12	Beirut	Secular-established in the late 1970's	English and Arabic
R	Low	Large	Prek-12	Beirut	Religious- part of a large institution	English and Arabic
S	Low	Small	Prek-3	Beirut	Religious-part of a large institution	English and Arabic
T	Lower-middle	Large	Prek-12	North	Secular-began in the 1970's	English, French and Arabic
U	Lower-middle	Large	Prek-12	Beirut	Religious- part of a larger institution	English and Arabic

Instrument

Researchers examining teachers' beliefs and practices have used several instruments. Smith and Shepard (1988) used an ethnographic method to examine the

relationship between kindergarten teachers' beliefs and practices regarding retention. Others have used in-depth interviews (Carlson et al., 1997; McMullen, 1999; 2001), questionnaires (Smith, 1997) and classroom observation or a combination of both (Buchanan et al., 1998; Stipek et al., 1995; Vartulli, 1999).

Given that the current trend in early childhood education is towards developmentally appropriate practices (DAP), it was of great relevance to select an instrument that embodied the principles of DAP. To examine these guiding principles of how children learn best and the appropriateness of teacher practices, the Teacher Questionnaire which was developed by the Louisiana Studies University team (LSU), Charlesworth et al., (1991, 1993) was used. The instrument is based upon DAP guidelines as outlined in the first National Association for the Education of Young Children (NAEYC) policy statement (Bredekamp, 1987).

The Teacher Questionnaire is a widely used and popular instrument with early childhood researchers (Burts et al, 1992; Charlesworth et al, 1991; Charlesworth et al, 1993; Charlesworth, 1998; Doliopoulou, 1996; Jones et al., 2000; Vartulli, 1999) and in some doctorate dissertations (Lu, 1993 and Nassif, 1999).

The original sample used by Charlesworth and her team to validate the Teacher Questionnaire consisted of 113 kindergarten teachers in four States in the U.S. (Charlesworth et al., 1991). A larger sample, 204 kindergarten teachers as well as 20 classroom observations were used to further validate the instrument (Charlesworth et al., 1993). The classroom observations validated the good psychometric properties of the Questionnaire.

Using this instrument in a non-Western culture can be enlightening and informative. According to Borg and Gall (1989), the process of repeating a research study with a different group of participants, using similar methods or different ones, is

a very powerful and useful tool. Replication can help confirm or disconfirm the validity of the findings of a major study. In addition, replication can help in determining the degree to which the research findings can be generalized across populations.

Dr. Roz Charlesworth was contacted through e-mail and asked for permission to use the instrument. On February 19, 2002 she granted her permission through an email.

No problem for you to use our instruments. Unfortunately I only have hard copy which I would be glad to send. Diane Burts may have the material in emailable format--try her at <dburt1@lsu.edu>

Moreover, on June 24, 2002, Dr. Charlesworth also provided an extensive list of research studies and doctoral dissertations that have employed that instrument.

The questionnaire used in this study was divided into five major categories: demographic and background information about teachers, statements concerning teachers' views on school climate, goals of the early childhood program, and influences on their practices, and the Teacher Questionnaire.

The Teacher Questionnaire consists of two subscales: Teachers' Beliefs Scale (hereafter referred to as TBS) and Instructional Activity Scale (hereafter referred to as) IAS. The items represent several areas as specified in the NAEYC guidelines (Bredekemp, 1987): curriculum goals, teaching strategies, guidance of socio-emotional development, language development and literacy, cognitive development, physical development, aesthetic development, motivation and assessment of children.

The Teacher Beliefs Scale

The TBS assesses the self-reported beliefs of teachers; it consists of 36-items and uses a 5-point Likert scale ranging from not important at all (1) to extremely

important (5). Each item is a statement which describes either a developmentally appropriate belief (e.g. It is ____ for children to know their letters and letter-sounds before they learn to read) or a developmentally inappropriate belief (e.g. It is _____for children to experiment with writing by inventing their own spelling). Appropriate belief items reflect teacher's views on the active involvement of the child, the nature of interaction between children and adults as well as peers and manipulation of materials. The appropriate belief items describe authentic experiences for children and appropriate learning activities that include projects, explorations.

The inappropriate belief items include statements about extrinsic motivation, emphasis on teaching isolated skills and a didactic view that sees the adult as in control.

Questionnaire items 1 and 2 concern evaluation strategies and reflect the inappropriate beliefs concerning use of tests and the heavy reliance on pencil and paper tasks. According to Moyles (2001), workbooks are tasks divorced from a context in which children can see any purpose and meaning (Table 3.2).

Table 3.2- Questionnaire Items-Beliefs about Evaluation

Item No.	Questionnaire Statement: How important is it....
1	for tests to be used to evaluate children.
2	to use worksheets and workbooks in evaluating children.

In a DAP classroom, language development and emerging literacy are encouraged through the use of whole language approaches, which drive learning throughout the day in meaningful activities. The questionnaire items 22, 23, 25, and 28 in Table 3.3 reflect a constructivist approach to literacy learning guided by the emergent literacy research on how children learn to read and write. These items reveal

the appropriateness of teachers' beliefs. While questionnaire items 7, 13, 14, 17, 20, and 24 in the same table reflect a traditional approach to language development and literacy and considered by DAP guidelines as inappropriate when they are taught in isolation.

Table 3.3- Questionnaire Items-Language Development and Literacy Beliefs

Item No.	Questionnaire Statement: How important is it....
7	for children to receive instruction in letter and word recognition.
13	for teachers to use flashcards to teach reading.
14	for children to read from basal books daily in teacher-directed groups.
17	for children to know their letters and letter-sounds before they learn to read.
20	for children to write letters on the line.
22	for children to write, or scribble.
23	for children to have stories read to them daily, individually and/or in groups.
24	for children to be good readers.
25	for children to dictate their own stories to the teacher.
28	for children to experiment with writing by inventing their own spelling.

Teachers have beliefs about the type of activities and classroom interaction they provide in the classroom. In Table 3.4, questionnaire items 6, 8, 10, 15, 26, and 34 concern the beliefs about the importance of engaging children in choices and hands-on materials as part of teaching. Questionnaire items 19 and 30 refer to beliefs seen by teachers as 'inappropriate' about how learning should be demonstrated.

Table 3.4- Questionnaire items- Teaching Strategies Beliefs

Item No.	Questionnaire Statement: How important is it....
6	for children to select their own activities.
8	to provide a variety of concrete learning materials in centres (writing centre, science centre, math centre, etc.).
10	for children to learn by actively exploring relevant and interesting materials.
12	for children to work on worksheets and ditto sheets individually and silently.
15	for teachers to move among groups and individuals, offering suggestions, asking questions, facilitating children's involvement with materials and activities.
19	for children to colour within the lines.
21	for teachers to prepare children for change before a change of activities.
26	for children to participate in art, music, dance, drama (ex. Dramatizing favourite stories).
30	for children to observe teacher demonstrated experiments to learn science concepts.
34	for children to work in small groups on projects that they plan and conduct themselves.

Integration of curriculum reflects the interrelatedness of the developmental domains of children. The themes link content from various subject areas to make learning relevant and meaningful. Questionnaire item 5 sees curriculum subjects in isolation which is in opposition to the DAP guidelines. Questionnaire items 31, 32, 36, and 37 are appropriate curriculum beliefs (Table 3.5).

Table 3.5- Questionnaire Items- Curriculum Beliefs

Item No.	Questionnaire Statement: How important is it....
5	for each curriculum area to be taught as separate subjects at separate times.
31	to teach health and safety with a variety of projects throughout the school year.
32	for children to experience multicultural and non-sexist activities and materials.
33	that outdoor activities are planned daily.
36	to use parent input in curriculum.
37	that children do activities that integrate multiple subject areas (reading, math, science, social studies, etc.).

Thoughts, emotions, imagination, and predispositions are interrelated in a DAP classroom. Thus, an appropriate socio-emotional and motivational climate is a key to creating a community of learners. Therefore, questionnaire items 21, 27, and 29 represent appropriate beliefs in establishing a positive social climate. Teachers also have beliefs about how children's behaviour should be guided. DAP strongly recommends that teachers use intrinsic rewards in order for children to be able to self assess and allow children to share in decision making so that they develop a sense of classroom ownership. Questionnaire items 18 and 35 reflect those beliefs whereas questionnaire item 16 expresses an 'inappropriate' belief. According to Kohn (1994, p.50) "...rewards and punishments are not opposites at all; they are two sides of the same coin. " (Table 3.6)

Table 3.6- Questionnaire Items-Beliefs concerning Socio-Emotional Guidance

Item No.	Questionnaire Statement: How important is it....
16	for teachers to use stickers, treats, and/or stars to encourage appropriate behaviour.
18	for children to establish rules for their classroom.
27	for children to talk informally with adults in class.
29	to provide many daily opportunities for developing social skills with peers in the classroom.
35	for strategies like setting limits, problem solving, redirection to be used to help guide children's behaviour.

Much of teachers' beliefs have to do with what they expect children to be able and capable of doing. Thus, questionnaire items 9 and 11 value children's ability. Questionnaire items 3 and 4 show how teachers cater appropriately to individuals needs by the nature and structure of activities for children (Table 3.7)

Table 3.7- Questionnaire Items- Child Expectation Beliefs

Item No.	Questionnaire Statement: How important is it....
3	for activities to be responsive to children's individual differences in interest.
4	for activities to be responsive to individual differences in children's development.
9	for children to create their own learning activities (e.g. cut their own shapes, plan their own art, or writing experiences).
11	for children to learn by interacting and working cooperatively with other children.

To establish the reliability of the Teachers Beliefs Scale for this study, reliability analysis was performed. This analysis yielded a Cronbach's alpha of 0.78, an indicator of a high level of reliability.

Instructional Activities Scale

The IAS is designed to inventory the reported instructional practice. It consists of 34 items. Each of these items describes an activity that the respondents have to rate its frequency and availability in his or her own classroom using a 5-point Likert scale from almost never (1; less than monthly) to very often (5; daily).

The items included in the IAS represent the same areas as those mentioned in TBS. However, the IAS items describe various activities rather than statements and ask about the frequency of children's participation in them. Each item describes an activity that is either a developmentally appropriate practice (e.g. colour and cut freely self-drawn shapes) or a developmentally inappropriate practice (e.g. colour and/or cut pre-drawn shapes).

The items are grouped into three clusters. The first one deals with social-emotional guidance, the second has to do with appropriate activities and practices and the last one deals with inappropriate practices.

Questionnaire items 23, 24, and 26 indicate the inappropriateness of these guidance techniques (Table 3.8).

Table 3.8- Questionnaire Items- Social-Emotional Guidance

Item No.	Questionnaire Statement: How often do children in your class do the following?
23	receive tangible rewards for good behaviour /performance.
24	lose special privileges (trips, recess, free time) for misbehaviour.
26	get placed in time-out chair.

Providing children with several opportunities for hands-on experience with pegboards, blocks, and materials for counting and measuring and others is considered appropriate practices. These are part of the effective teaching strategies that are

considered appropriate and represented in questionnaire items 1, 2, 6, 7, 11, 18, and 22.

Questionnaire items 3, 4, and 5 deal with appropriate literacy practices. Integrated curriculum practices which also include physical and aesthetic development practices are reflected in the following items 8, 9, 10, 27, 28, 30, 31, and 32 (Table 3.9).

Table 3.9-Questionnaire Items- Appropriate Activities

Item No.	Questionnaire Statement: How often do children in your class do the following?
1	build constructions with purchased and /or recycled materials.
2	select centre (reading, math, science, writing, etc.).
3	participate in dramatic play activities.
4	listen to recordings of stories.
5	do creative writing (combining symbols/invented spelling and drawing, and conventional spelling).
6	play with games and puzzles.
7	explore life science materials such as animals and plants, and/or physical science materials such as wheels and gears.
8	sing and/or listen to music.
9	move creatively as a planned activity.
10	colour and cut freely- self –drawn shapes.
11	use manipulatives (like pegboards, puzzles, Legos, tangrams, etc.).
18	participate in hands-on projects.
22	coordinate their own activities in centres.
27	participate in specifically planned outdoor activities.
28	participate in multicultural and non-sexist activities.
30	do health and safety activities.
31	draw, paint, work with clay, and use other art media.
32	solve math problems that are incorporated into other subject areas.

Inappropriate practices are ones that require more seatwork, worksheet tasks, copying and pencil-paper tasks, and fragmented learning. Items 12, 13, 15, and 17, 20 describe the inappropriate literacy activities. Items 14 and 25 concern traditional assessment while items 16, 19, 21, 29 present teaching practices (Table 3.10).

Table 3.10- Questionnaire Items- Inappropriate Activities

Item No.	Questionnaire Statement: How often do children in your class do the following?
12	do phonics activities.
13	read in ability level groups.
14	circle, underline, and/or mark items on worksheets.
15	use flash cards with sight words and/or math facts.
16	participate in rote-counting.
17	practice handwriting on lines.
19	colour and/or cut pre-drawn shapes.
20	copy from chalkboard.
21	participate in whole-class teacher-directed instruction.
25	take tests.
29	play competitive math activities to learn math facts.

The reliability of the 32-item IAS was established when the reliability analysis yielded a Cronbach's alpha of 0.80.

Classroom Observation Checklist

One of the major problems with the questionnaire is the accuracy of the self-reporting of respondents; therefore classroom observation becomes an accuracy check. Researchers have used observation checklists in their examination of actual instructional practices (Bryant et al., 1991; Rusher et al., 1992; Stipek et al., 1992). Some have used the Classroom Practices Inventory (CPI) (Vartulli, 1999). The CPI was developed by Hyson et al, 1990. It adheres to the developmentally appropriate and inappropriate practices relating to seven components of the NAEYC guidelines

(Bredekemp, 1987): teaching strategies, guidance of socio-emotional development, language development, cognitive development, physical development, aesthetic development, and motivation and is used in classrooms for children 4- and 5-years old. The CPI contains 26 items, 20 of which deal with the nature of the program and the remaining six deal with the social and emotional climate. This checklist uses a 5-point Likert scale, ranging from “not at all like this classroom” to “very much like this classroom.” The internal consistency of the individual scales was high, with a correlation coefficient ranging from 0.88 to 0.96 as indicated by Hyson et al. (1990).

Given that observations may be subject to bias by the observer, Hyson et al. (1990) examined the inter-observer reliability of the CPI. The results showed that scores on CPI correlated strongly across pairs of raters (correlation coefficient= 0.86). Thus, this instrument demonstrated excellent internal consistency and good levels of inter-observer reliability, even when observers were not present at exactly the same time (Hyson et al, 1990, p.488). To determine the statistical reliability of the CPI for this study, a reliability analysis was conducted, generating a Cronbach's alpha of 0.67.

The CPI Checklist as published in the study of Hyson et al. (1990, pp. 493-494) is presented.

Table 3.11 lists the items that a classroom observer is likely to see taking place for most of the day. It is a classroom that sees the child as an active constructor of learning and where the teacher is a questioner who encourages critical thinking and problem solving skills.

Table 3.11-Checklist Items- Appropriate Program/Activity Focus

Item No.	Checklist Observation Statement
	To what extent does each statement reflect this classroom?
1	Children select their own activities from a variety of learning areas the teacher prepares.
3	Children are involved in concrete, three-dimensional learning activities, with materials closely related to children's daily life experiences.
5	Children are physically active in the classroom, choosing from activities the teacher has set up and spontaneously initiating many of their own activities.
6	Children work individually or in small, child chosen groups most of the time. Different children are doing different things.
8	Teacher asks questions that encourage children to give more than one right answer
11	Teachers use activities such as block building, measuring ingredients for cooking, and drawing to help children learn concepts in math, science, and social studies.
12	Children have planned lessons in writing with pencils, colouring pre-drawn forms, tracing, or correct use of scissors.
13	Children use a variety of art media, including easel, finger painting, and clay in ways of their choosing.
15	When teachers try to get children involved in activities, they do so by stimulating children's natural curiosity and interest
16	The classroom environment encourages children to listen to and read stories, dictate stories, notice print in use in the classroom, engage in dramatic play, experiments with writing by drawing, copying, and inventing their own spelling.
19	Children have daily opportunities to use puzzles, Lego, markers, scissors or other similar materials in ways the children choose.

Classrooms in which the observer is likely to see inappropriate activities are the ones where lecturing is seen more frequently, children are busy working on several worksheets at a time and literacy instruction is devoid of any meaningful context (Table 3.12).

Table 3.12- Checklist Items-Inappropriate Program/Activity Focus

Item No.	Checklist Observation Statement
	To what extent does this statement reflect this classroom?
2	Large group, teacher directed instruction is used most of the time. Children are doing the same things at the same time.
4	The teacher tells the children exactly what they will do and when. The teacher expects the children to follow her plans.
7	Children use workbooks, ditto sheets, flashcards, and other abstract or two-dimensional learning materials.
9	Teacher expects children to sit down, watch, be quiet, and listens, or do paper and pencil tasks for major periods of time.
10	Reading and writing instruction emphasizes direct teaching of letter recognition, reciting the alphabet, colouring within the lines, and being instructed in the correct formation of letters.
14	Teachers expect children to respond correctly with one right answer. Memorization and drill are emphasized.
17	Art projects involve copying an adult-made model, colouring pre-drawn forms, or following other adult directions.
18	Separate times or periods are set aside to learn material in specific content areas such as math, science, or social studies.
20	When teachers try to get children involved in activities, she does so by requiring their participation, giving rewards, disapproving of failure to participate.

The third set in this inventory deals with the social-emotional climate. There are four positive items; 21, 22, 24, and 26 and additional two that would be considered as negative; items 23, and 25 (Table 3.13).

Table 3.13- Social-Emotional Climate

Item No.	Checklist Observation Statement
	To what extent does this statement reflect this classroom?
21	Teacher shows affection by smiling, touching, holding, and speaking to children at their eye level throughout the day, but especially at arrival and departure times.
22	The sound of the environment is marked by pleasant conversation, spontaneous laughter, and excitement.
23	The teacher uses competition, comparison as guidance and discipline techniques.
24	The teacher talks about feelings. She encourages children to put their emotions (positive and negative) and ideas into words.
25	The sound of the environment is characterized either by harsh noise or enforced quiet.
26	The teacher uses redirection, positive reinforcement, and encouragement as guidance or discipline techniques

In addition to this checklist, field notes were used to examine other aspects of the classroom dynamics such as child-child and teacher-child interaction and the physical environment.

In-Depth Interviews

To gain in-depth understanding of a teacher's classroom life, semi-structured interviews were conducted in few schools. The purpose of the interviews was to explore in some depth their experiences, motivation and reasoning. Many teachers declined because they claimed it was difficult to find free time. The participants

interviewed represented a variety of degree levels, years of experience, grade level that represented the different socioeconomic levels of schools.

Six teachers were willing to sit down for up to 45 minutes and answer questions posed by the researcher. Four of the teachers had more than 8 years of teaching experience. The interviews were conducted in the schools. The teachers did not agree to being taped. Further inquiry revealed that they had bad experience with previous researchers who were untrustworthy, misrepresented what they said and did not adhere to research ethics. However, they welcomed the opportunity to talk to someone who is interested in their views and in what they are doing.

The interview questions asked teachers about the motives behind teaching, the changes they have witnessed in children through their teaching history and how or whether their teaching practices have changed and why they thought so. The teachers were also asked to reflect on their experiences and address one thing they would like to change in their teaching life (Questions appear in Appendix D).

The Pilot Test

The questionnaire was tested with a sample of 10 teachers who represented part of the diversity of Lebanese schools. Discussion followed as participants completed the questionnaire and talked about confusing items and identified misunderstandings. The key items addressed in piloting were the clarity of items and the format. In addition, the pilot study looked at the time requirement and teachers' understanding of certain terms (Anderson and Arsenault, 1998). Results of the pilot test can be summarized as follows.

Changes in the Background Section

Questionnaire item 10 before read as follows:

Are you a classroom teacher who teaches all subjects? Yes or No.

The pilot respondents explained that their schools consider them as classroom teachers but they don't teach all subjects. Therefore, another sub-item was added

*If **not** all subjects, please specify:* _____

Questionnaire item 14

Do you have a Teaching Diploma?

This item was a bit confusing for some teachers. In Lebanon, the term diploma unfortunately has several connotations. A diploma can be something one gets from attending a workshop, to going to a vocational school, to attending a simple two-year teacher training after ninth grade. So some teachers who do not have a university degree indicated that they have a teaching diploma. As a result, the item had to be changed to read as follows:

*Do you have a Teaching Diploma (**a teaching diploma is above the BA level**)?*

As for the rest of the questionnaire, most were satisfied except for one teacher who found the terms, manipulatives in item 11 in the IAS and time-out chair in item 26 of the IAS as alien terms to her. Given that this teacher had less than high school education and was teaching at preschools, the researcher decided to keep these items since these are frequently used terms in many schools and made sure to check with school principals and coordinators as to whether their teachers are familiar with these terms.

There were comments on the length of the questionnaire. Some said it was a bit long and it took them 15 to 20 minutes to complete. However, many of them felt that the items were relevant to them and deserved responding to.

Fieldwork Observations

The study was conducted in 21 schools from late March to the end of May 2002. In some schools, the principal identified the preK and kindergarten teachers

and the classrooms for the study. Some schools gave teachers the option to volunteer but in other schools, the principal required all early childhood teachers to respond to the questionnaire and allowed the researcher to observe in their classrooms. Of the schools sampled, 18 classrooms were observed using the CPI checklist (Hyson et al, 1990) as well as field notes. The duration for each classroom observation averaged three hours.

The researcher attempted to observe those teachers whose responses on the questionnaire indicated extreme ends of being too inappropriate or appropriate. However, this was not easy to achieve given that some teachers did not want to be observed because according to them they had finished their material and were not teaching then; instead, they were training children to the end of year show which required a lot of time, preparation and rehearsals for children. Three of the teachers observed did not have a university degree, and the years of experience ranged from one year to 26 years. Classroom visits ranged from two visits to one and for duration of three hours. Table 3.14 summarizes the classes observed.

Table 3.14: Characteristics of the Schools and Teachers Selected for Observation

School	SES	No. of classes observed	Grade Level and Teacher education background with years of experience level
School A	Low	1	KGI - High school and 2 years
School B	High	1	KGII -BA Elementary and 15 years
School C	Middle	1	KGII -High School and 4 years
School H	Lower-middle	2	KGI –MA- History and seven years KGII -BA-Interior Design and three years
School L	Low	4	KGI 1. BA-Elementary and two years 2. High School and five years KGII 1. Less than high school and 10 years 2. BA-Political Science and 20 years
School M	High	8	KGI 1. BA Public Administration and 12 years. 2. BS-Nutrition and six years 3. BA-Early Childhood and 11 years 4. BA-Psychology and 8 years KGII 1. BA-Elementary and 8 years 2. BA- Psychology and 11 years 3. BA-TEFL and 16 years 4. BA-Early Childhood and 15 years
School Q	Middle	1	KGII - BA Early Childhood and 3 years

Data Collection

The covering letter (Appendix A) identified the significance and major purpose of the study. It is this researcher's belief that the cover letter had a significant effect on the response rate because it provided motivation, assured confidentiality, and provided a promise of sharing the summary of results with interested participants (Gorard, 2001).

The same can be said about the letters that were sent to school administrators requesting their approval (Appendix B). One large school requested a copy of the thesis proposal; another requested a formal letter from the University of Leicester. My advisor, Dr. Roger Merry, appreciatively wrote this letter. The researcher visited several schools and hand delivered the questionnaires (Appendix C) and reviewed

with the school principal the purpose as well as the procedure for distributing, collecting and returning the questionnaire. Some school principals decided to take charge of the procedure and make sure that each teacher fill it out and return it in two days. Others opted to have a general meeting for all early childhood teachers and ask them to respond to the questionnaire at the same time. The school principal then collected all the completed questionnaires and handed them over to the researcher. In schools where principals did not indicate to the teachers their support for this research, the response rate was much lower.

Participants

All the prek-k teachers in the 21 selected schools were contacted. Of the 149 questionnaires distributed, a total of 135 were completed and returned, yielding a response rate of 90.6%. Of the 135 teachers, 43.7 % are kindergarten teachers and 53.8 % are preschool teachers who teach either nursery or KGI. The remaining 4.4% are teachers who teach at all levels of the early years. In few schools, teachers of English for example teach all levels.

The term 'classroom teacher' has different meanings in different schools. In some schools, English teachers are considered classroom teachers while in others the Arabic teachers are considered classroom teachers. Of the respondents, 51% said they are classroom teachers while the rest are considered as subject teachers. Those who indicated they are classroom teachers teach all other academic subjects. As for art, music and physical education, children have other teachers. Table 3.15 details the characteristics of teachers in each school.

Table 3.15-Characteristics of Participants in Each School

School	SES	Number of teachers who participated	Number of Teachers with a university degree	Range of years of experience
A	Low	4	2	2 to 20
B	High	2	2	12 to 26
C	Middle	6	4	2 to 6
D	Low	18	3	1 to 10
E	Middle	12	11	3 to 11
F	Low	4	2	3 to 21
G	Middle	4	None	2 to 16
H	Lower-middle	3	2	1 to 5
I	Lower-middle	9	2	3 to 14
J	Middle	3	None	3 to 8
K	Lower-middle	5	2	10 to 14
L	Low	13	9	1 to 6
M	High	14	13	5 to 28
N	Middle	4	2	3 to 17
O	Middle	7	5	1 to 12
P	Lower-middle	4	1	3 to 19
Q	Middle	4	2	3 to 19
R	Low	8	5	1 to 23
S	Low	1	None	11
T	Lower-middle	2	None	7 to 14
U	Lower-middle	8	4	2 to 19

Data Analysis

The researcher utilized SPSS 11.0 for Windows to assist in the data analysis of the survey data. Descriptive statistics were employed to describe the sample characteristics. Cronbach alpha was used to determine the reliability of the dimensions of the items.

Several statistical methods were used to analyze the responses to the research questions. In the lines below, the method(s) used with regard to each of these questions is described.

Research Question 1: How do teachers' beliefs and practices align with current theory about early childhood education, mainly DAP?

Factor analysis was used to analyze responses to this question. Several studies on beliefs and practices have used that method (Buchanan et al, 1998; Burts et al, 1992; Charlesworth et al., 1991; 1993; Doliopoulou, 1996; Hyson et al, 1990; Smith, 1997; Vartulli, 1999).

Factor analysis is used as a data-reduction technique (Cohen et al., 2000) to identify and validate variables that are moderately or highly correlated with each other (Borg & Gall, 1989). Factor analysis seeks to explain an entire variable set, and searches for a structure among a set of variables (Hair et al., 1995) with the eigenvalue representing the amount of variance accounted for by a factor. Factor analysis defines a set of common underlying dimensions known as factors.

Each set of variables that had common elements forms a factor. The first factor represents the variables that are mostly intercorrelated with each other. Once the factor is identified, then interpretation of the pattern of correlation to determine the conceptual meaning of the underlying factor is labelled (Borg & Gall, 1989). If the researcher wants a 'pure' set of factors, with each measuring a construct that does not overlap with constructs measured by other factors then an orthogonal solution is desirable (Borg & Gall, 1989, p.623).

Decision concerning how many factors are needed to measure the important dimensions in the data is guided by the use of a Scree plot. This is done by looking at the plot of the eigenvalues against their associated factors and looking for a sharp change or *elbow* in the plot that occurs when a steep drop gives way to a shallower slope (Hair et al, 1995).

The factors that emerged in this study were grouped into appropriate and 'inappropriate' beliefs and practices. Two dependent variables from the TBS were identified: Developmentally Inappropriate Beliefs (DIB) and Developmentally Appropriate Beliefs (DAB). From the IAS, two dependent variables emerged: Developmentally Inappropriate Practices (DIP) and Developmentally Appropriate Practices (DAP).

Research Question 2: What is the nature of the relationship between teachers' self-reported beliefs and self-reported practices?

Correlation analysis was used to test the statistical significance and the strength of the relation between self-reported beliefs and self-reported practices. This method was used because all the variables are continuous (Agresti & Finlay, 1997).

Research Question 3: Are teachers' self-reported beliefs and practices consistent with their actual practices?

Classroom observation using the CPI classroom Inventory was used to answer this research question. Correlation analysis was used to ascertain the significance and strength of the relationship between self-reported beliefs and practices and actual practices.

Research Question 4: What is the nature of the relationship between teachers' self-reported beliefs and self-reported practices on the one hand, and teacher characteristics on the other?

Beliefs and practices are represented by four dependent variables: DAB, DAP, DIB, DIP. Teacher characteristics include the following independent variables: teacher's educational degree, marital status, gender, age, years of experience, and amount of monthly salary paid. In addition, the following external influences are considered part of teacher characteristics: administrative support, collegial attitudes, school climate, parents influence as well as the richness or lack of instructional resources.

The relation between each of the dependent variables and the set of independent variables is examined using analysis of variance (ANOVA). This method is appropriate because of the nature of the dependent and independent variables. The former is a continuous variable while the latter is a set of categorical and continuous variables (Cohen et al, 2000). Furthermore, ANOVA is preferred to linear regression because it does not assume linearity of the relation between the dependent and independent variables (Agresti & Finlay, 1997).

Research Question 5: *What is the nature of the relationship between teachers' self-reported beliefs and self-reported practices on the one hand, and school characteristics on the other?*

School characteristics include the independent variables: socioeconomic status of the student population, school size, class size, grade level, and region. ANOVA was used to test the significance of the relationship between these factors and beliefs and practices of teachers. The rationale for using ANOVA is the same one stated in research question 3.

Research Question 6: *What is the nature of the relationship between teachers' self-reported beliefs and self-reported practices on the one hand, and teacher and school characteristics on the other?*

After testing the significance of the relationship between the dependent variables and each of the two sets of independent variables- teacher characteristics and school characteristics, a full statistical, multivariate model is examined using the three sets of independent variables. Analysis of variance was the statistical method implemented in the analysis for the reasons stated earlier.

In addition, both field notes and interviews were used to corroborate the quantitative data. Field notes were transcribed and grouped into major themes that reflected the type of children's experiences in those classrooms as well as the teacher-

child interaction. As for the semi-structured interviews, data analysis involved categorization and reorganization of the data, seeking patterns that have a bearing on the research questions.

Limitations of the Study

The study was subject to the following limitations:

- 1- The study is a non-probability sample and thus the findings cannot be generalized to the total population of schools.
- 2- Because of unforeseen problems in commencing the study on time, the observed data had to be collected in a relatively short period from the end of March to May of 2002. Consequently, only 18 cases were observed. This small sample size is not adequate enough to check the accuracy of the data collected in a self-administered questionnaire.
- 3- Two factors limited the number of in-depth interviews. The first had to do with the timing of the study, which in many schools coincided with preparation for the end of school year. The second factor was the lack of cooperation of some teachers.
- 4- Despite pilot testing, some subjects had some problem understanding terms like time-out chair.

Summary

Chapter three presented the methodology and procedures used in this study. The population and sampling method was described. The sample utilized in this study was purposively selected using 21 schools and 135 preschool and kindergarten Lebanese teachers.

The questionnaire used the existing instruments, TBS, IAS, and the CPI. In addition, a set of questions on school climate and other influences were included in the questionnaire.

Methods of data collection and data analysis were stated. Statistical procedure mainly factor analysis was explained. ANOVA and MANOVA were used to evaluate the effects of the independent variables; school characteristics and teacher characteristics and contextual factors on the dependent variables of teachers' self-reported beliefs and their practices.

Chapter Four

Reported and Observed Beliefs and Practices:

Findings and Discussion

This chapter is the first of two consecutive chapters that present and discuss the findings of the study in relation to the research questions and hypotheses presented in chapter one. Six research questions guided the study and six hypotheses were tested. The first three research questions are tackled in this chapter while the remaining three are the subject of chapter five.

The first objective of the study was to find out whether a significant relationship exists between the developmental appropriateness of the self-reported beliefs and self-reported practices of Lebanese early childhood teachers. To examine this relationship, the chapter identifies the factors that comprise the appropriate and inappropriate beliefs and then the factors that comprise the appropriate and inappropriate practices. Subsequently, it examines the nature of the relationship between self-reported beliefs and practices then explores whether these beliefs and practices are consistent with the actual observed practices. Throughout the chapter, statistical analysis is followed by a substantive discussion of the findings. These discussions are supported by evidence from classroom observation field notes and interviews with teachers. As a backdrop to the analysis and discussion, the chapter begins with a description of the characteristics of the participants.

Background Data

Characteristics of Participants

About half the teachers in the sample are quite young (19-29 years of age), married, teach preschool, and are classroom teachers. Almost 60 % of those teachers earn less than 530 US dollars per month, an income that can barely support a single

adult in Greater Beirut. The majority of the respondents, 64.8%, have at least five years of classroom experience, including some with over 15 years of experience. Over a third of the teachers have less than four years of experience. Slightly more than half, 53.4 %, indicated that they have a university degree. Of those, 17.8 % have a degree in education, and 51 % have a teaching diploma. Pertinent to developmentally appropriate beliefs and practices are certain courses that are offered at universities and taken by the teachers. These are shown in table 4.1. The table also shows the percentages of college degree holders who have taken a course in each of the following subject matters: introduction to early childhood education (45.8 %), teaching reading (34.7 %), child development (56.9 %), classroom management (43 %), practicum in early childhood education (26.4 %), and methods and materials in early childhood (33.3 %).

Table 4.1: Background Characteristics of Participants

Characteristic	Percent	Number of cases
Marital Status		
single	46.7	135
married	50.4	
divorced	2.2	
widowed	0.7	
Age group		
20-24	18.5	130
25-29	32.3	
30-34	15.4	
35-39	18.5	
40+	18.5	
Monthly Salary in US dollars		
Under 330	16.0	130
330-430	26.7	
431-530	22.1	
above 530	35.2	
Years of teaching experience		
0-4	35.6	135
5-9	24.4	
10-14	23.7	
15+	16.3	
Classroom Teachers	51.1	135
Highest Education Level		
No University Degree	46.7	
BA/BS or higher		
Early Childhood	8.9	135
Elementary Education	8.9	
Other Majors	35.6	
Degree holders with a TD	51.8	72
Courses taken by degree holders		
Introduction to Early Childhood	45.8	72
Teaching Reading	34.7	
Classroom Management	43.0	
Practicum in Early Childhood	26.4	
Child Development	56.9	
Methods and Materials in Early Childhood	33.3	
External Influences		
<i>Parents</i>		
Certain	74.8	
Great	25.2	
<i>School Principal</i>		
Certain	24.4	135
Great	75.6	
<i>Availability of Resources</i>		
Satisfied	87.4	
Not satisfied	12.6	

School Characteristics

Slightly over half the selected schools are located in the Beirut area, and the overwhelming majority (81%) in the Greater Beirut area, i.e., Beirut and suburbs. The rest of the schools lie in north and south Lebanon. Based on their tuition fees, the schools can be classified into four strata of socioeconomic level (hereafter referred to as SES): low (tuition below 1000 US dollars), lower middle (1000-1500 US dollars), middle (1500-2500 US dollars), and high (above 2500 US dollars). The highest proportion of schools falls in the middle status category (38%) followed by the lower status (29%) then the lower middle (24%). As to their size in terms of the number of enrolled students, the majority is either large with over 1500 students (38%) or of medium size (38%), while about a quarter of the schools is small (under 500 students) as shown in (table 4.2).

Table 4.2: School Characteristics

Characteristic	Percent	Number of cases
Region		
Beirut City	52.4	21
Beirut Suburbs	28.6	
South Lebanon	9.5	
North Lebanon	9.5	
Socioeconomic Status		
lower	28.6	21
lower middle	23.8	
middle	38.1	
upper	9.5	
School Type		
Private	92.6	21
Semi private	7.4	
Size		
Small- under 500 students	23.8	21
Medium-500-1500 students	38.1	
Large – over 1500 students	38.1	
Available grades		
K-6	23.8	21
K-12	76.2	
Average Number of Students/Class		
0-19	27.8	133*
20-25	20.3	
26-30	27.8	
31+	22.6	
Grade level		
KGII	43.7	135*
Preschool (KGI + Nursery)	53.8	
KGII + Preschool	4.4	

* The percentages are based on teachers' reports.

The overwhelming majority of schools is private (93%) and serves grades K-12 (76%). The average number of students per class, as table 4.3 shows, varies from one school to another with a substantial difference between the high SES status schools (M=19.4) and the low SES status schools (M=30.2).

Table- 4.3: Distribution of the Schools by Socioeconomic Level and Average Class Size

SES level	Average Number of Students
Low SES	30.2
Lower Middle SES	23.4
Middle SES	20.4
High SES	19.4
Total	24.5

The findings also showed that 73 % of teachers who do not have a university degree tend to teach in low and lower middle SES schools as compared to 43 % of those with a university degree. Furthermore, almost 86 % of the lowest salaried teachers teach in low and lower middle SES schools. The highest salary bracket goes to teachers who teach in middle and high SES schools.

Other findings of the questionnaire:

- The majority of teachers considered self-esteem as the most important goal of early childhood programmes, thus focusing on the social aspect of the programme whereas 79% saw knowledge as the primary goal.
- Teachers' views on school climate indicated that they received support from staff and colleagues who were open to new ideas. Furthermore, 77.8% of them felt that parents were supportive. A substantial minority felt that the following factors interfered with their job of teaching:
 - Thirty-five percent of them felt that the level of child misbehaviour (for example, noise, horseplay, or fighting in the halls or cafeteria) in the school interferes with their teaching.
 - Twenty-five percent of them felt that routine administrative duties and paperwork interfere with their job of teaching.

- Teachers' level of satisfaction with school features ranged from a high level of 93% for school building and facilities to a low 55% for the salary.
- Teachers noted that they had the greatest degree of influence (93.3 %) over the curriculum followed by school coordinator (78.5 %), school principal (75.6 %), and then parents (25.2 %). Only a small percentage of teachers, (7.4 %) felt that the government had the greatest degree of influence on their curriculum.
- The overwhelming majority 98.5% of teachers felt that they were making a difference in children's lives and 87.3% would choose teaching again if they had to start over.

Data Analysis

In presenting the findings, each of the research questions is examined in the order it appears in Chapter One. The statistical methods used are mentioned without elaboration, but cross-reference is given to facilitate further reading or description of those methods.

Research Question 1: *How do teachers' self-reported beliefs and self-reported practices align with current theory about early childhood education, mainly DAP?*

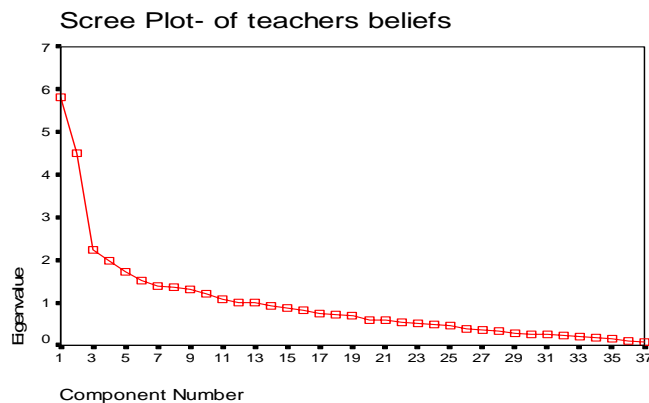
To answer this question, factor analysis was used for both the Teacher Beliefs Scale (TBS) and the Instructional Activity Scale (IAS) items. Item means for the TBS ranged from 2.54 to 4.70 on a scale from 1 to 5 (average SD = 0.89).

Factor Analysis of Teacher Beliefs Scale

To identify the factors or components underlying the Teacher Beliefs Scale (TBS), factor analysis was employed. The TBS questionnaire items were rotated using Varimax orthogonal rotation that seeks loadings that maximizes the variance (Hair et al, 1995). Principal component analysis yielded 13 factors. Some factors were

not logically related or conceptually sound with DAP. Thus, an examination of the scree plot (figure 4.1) identified 7 factors. The criteria for inclusion of the factors were twofold: each factor had an eigenvalue of above 1.0 (Kaiser, 1960) and a Cronbach's alpha α of 0.40 and above (Hair et al, 1995). Seven factors emerged from this and the scale reliability was expressed by Cronbach's alpha. This rotation accounted for 51.8 % of the variance and yielded moderate to high item loadings (ranging from 0.40 to 0.84) on the designated factors with cross-loading of some items.

Figure 4.1-Scree Plot of Teacher Beliefs



Variables with higher loadings are considered important and have greater influence on the label selected to represent a factor. Thus, labelling accurately reflects the variables loading on that factor (Hair et al, 1995).

The first factor (F1), “inappropriate activities” comprised ten items (Cronbach's alpha, $\alpha=0.82$) and accounted for 15.7 percent variance (eigenvalue, $e=5.81$). The second factor (F2), ‘appropriate social climate’ was composed of seven items ($\alpha= 0.75$) and accounted for 12.1 per cent variance ($e= 4.50$). The third factor (F3), ‘appropriate activities’ consisted of eight items ($\alpha= 0.74$) and accounted for 6.0 per cent variance ($e=2.25$). The fourth factor (F4), ‘appropriate teaching strategies’ consisted of six items ($\alpha= 0.66$) and accounted for 5.3 per cent variance ($e=1.98$). The

fifth factor (F5), 'appropriate literacy activities' consisted of four items ($\alpha = 0.69$) and accounted for 4.7 per cent variance ($e = 1.73$). The sixth factor (F6), 'inappropriate curriculum' consisted of four items ($\alpha = 0.43$) and accounted for 4.1 per cent variance ($e = 1.52$).

The seventh factor (F7) accounted for 3.8 per cent variance ($e = 1.39$), which consisted of two items ($\alpha = 0.34$). This factor was difficult to label since the two items had nothing in common. There are some instances according to Hair et al (1995, p. 388) where it is not possible to assign a name to the factor and thus a label of "undefined" may be used.

Tests of reliability were run on each of the seven factors. The results are reported in table 4.4 along with the item means and standard deviations.

Table 4.4- Factor Analysis of the Teacher Beliefs Scale

Factor 1- Inappropriate Activities			
Eigenvalue 5.81			
	Factor Loading	Mean	Standard Deviation
(19) colour within the lines	.84	3.14	1.20
(12) work on worksheets	.73	2.98	1.19
(2) use of worksheets in evaluating children	.71	3.41	1.07
(20) write letters on the lines	.67	3.15	1.19
(14) read from basal books	.63	3.25	1.19
(13) use flashcards to teach reading	.62	4.13	0.95
(7) instruction in letter and word recognition	.52*	3.70	0.95
(16) use stickers, treats, and/or stars	.48	4.02	1.04
(17) know their letters and letter-sounds	.42*	4.16	1.00
(30) observe teacher demonstrated experiments	.42	3.98	1.12
Cronbach's alpha	.82		
Factor 2- Appropriate Social Climate			
Eigenvalue- 4.50			
(10) actively exploring	.77	4.62	.61
(9) create own learning activities	.72	4.57	.63
(29) social skills with peers	.57	4.46	.76
(18) children establish rules	.56	4.55	.68
(11) interacting with other children	.49	4.69	.59
(22) write, or scribble	.44*	4.09	.83
(26) participate in art, music, dance, drama	.41*	4.68	.68
Cronbach's alpha	.75		
Factor 3-Appropriate activities			
Eigenvalue 2.25			
(3) individual differences in interest	.77	4.36	.73
(4) individual differences in development	.75	4.40	.78
(33) outdoor activities are planned daily	.52*	4.00	.91
(26) participate in art, music, dance, drama	.50*	4.68	.68
(6) select own activities	.46	3.78	.84
(32) multicultural and non-sexist activities	.45	3.90	1.04
(34) work in small groups	.40*	4.24	.81
(11) interacting with other children	.40	4.69	.59
Cronbach's alpha	.74		

Table 4.4- Factor Analysis of the Teacher Beliefs Scale - continued

Factor 4- Appropriate teaching strategies			
Eigenvalue- 1.98			
	Factor Loading	Mean	Standard Deviation
(31) health and safety throughout the year	.62	4.66	.61
(34) work in small groups	.62*	4.24	.81
(37) activities that integrate multiple subject areas	.60	4.55	.60
(8) concrete learning materials in centres	.51	4.64	.75
(23) stories read daily, individually and/or in groups	.49	4.66	.61
(33) outdoor activities are planned daily	.42*	4.00	.91
Cronbach's alpha	.66		
Factor 5- Appropriate Literacy Activities			
Eigenvalue - 1.73			
(24) be good readers	.78	3.89	.96
(25) dictate their own stories to the teacher	.74	4.13	.87
(28) invented spelling	.49	4.03	1.03
(22) write, or scribble	.40*	4.09	.83
Cronbach's alpha	.69		
Factor 6- Inappropriate Curriculum			
Eigenvalue- 1.52			
(1) Use of tests	.67	2.70	1.17
(21) teachers behaviour/change	.56	4.40	.80
(7) Instruction in letter and word recognition	-.46*	3.70	.95
(5) Curriculum in separate subjects	.43	2.54	1.30
Cronbach's alpha	.43		
Factor 7- Undefined			
Eigenvalue- 1.39			
(36) parent input in curriculum	.67	3.54	.96
(17) Knowledge of letters and letter-sounds	.55*	4.16	1.00
Cronbach's alpha	.34		

* refers to items that cross-loaded on more than one factor.

Seven items of the TBS cross- loaded on more than one factor.

Item 7: *for children to receive instruction in letter and word recognition* cross-loaded on both factors 1- inappropriate activities and factor 6- inappropriate curriculum.

Item 11: *for children to learn by interacting and working cooperatively with other children* and

Item 26: *for children to participate in art, music, dance, drama (ex. Dramatizing favourite stories)* cross- loaded on both factors 2 – appropriate factor 3- appropriate activities.

Item 17: *for children to know their letters and letter-sounds before they learn to read* cross- loaded on factors 1- inappropriate activities and factor 7-the undefined factor.

Item 22: *for children to write, or scribble* cross- loaded on factors 2- appropriate social climate and factor 5- appropriate literacy activities.

Items 33: *that outdoor activities are planned daily* and Item 34: *for children to work in small groups on projects that they plan and conduct themselves* both cross-loaded on factors 3-appropriate activities and factor 4- appropriate teaching strategies.

There were three items that did not load on any of the factors:

Item 15: *for teachers to move among groups and individuals, offering suggestions, asking questions, facilitating children's involvement with materials and activities*

Item 27: *for children to talk informally with adults in class*

Item 35: *for strategies like setting limits, problem solving, and redirection to be used to help guide children's behaviour*

From the seven factors, two belief subscales were created by summing up the appropriate and inappropriate items separately: 'developmentally appropriate beliefs'

(DAB) which included 21 items with a Cronbach's alpha of 0.82, and 'developmentally inappropriate beliefs' (DIB) which included 13 items with a Cronbach's alpha of .80. The value of DAB ranged from 66 to 104 with $M=91.03$ and $SD=7.62$. The value of DIB ranged from 24 to 60 with $M= 45.12$ and $SD= 7.91$ (table 4.5).

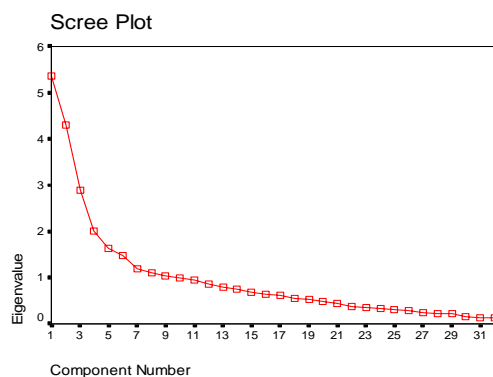
Table 4.5- Descriptive Statistics for DAB and DIB

	N	Minimum	Maximum	Mean	Std. Deviation
DAB	129	66.00	104.00	91.03	7.62
DIB	128	24.00	60.00	45.12	7.91

Factor Analysis of Instructional Activity Scale

A similar analysis was utilized for the IAS. Item means ranged from 1.72 to 4.67 (average $SD = 1.12$). Principal component analysis yielded 11 factors. Further examination of the scree plot (figure 4.2) identified 8 factors. This rotation explained 62.31 % of the variance and yielded item loadings (ranging from 0.40 to 0.83) on the designated factors and with cross-loading of some items.

Figure 4.2- Scree Plot for Instructional Activity Scale



The same criteria used for the inclusion of the factors for TBS were also used with IAS.

The first factor (F1), 'appropriate activities' comprised 8 items (Cronbach's alpha, $\alpha=0.82$) and accounted for 16.8 percent variance (eigenvalue, $e=5.36$). The second factor (F2), 'inappropriate literacy activities' was composed of six items ($\alpha=$

0.81) and accounted for 13.4 per cent variance ($e= 4.30$). The third factor (F3), 'inappropriate instruction' consisted of four items ($\alpha= 0.70$) and accounted for 9.0 per cent variance ($e=2.89$). The fourth factor (F4), 'appropriate teaching strategies' consisted of six items ($\alpha= 0.57$) and accounted for 6.24 per cent variance ($e= 2.00$). The fifth factor (F5), 'inappropriate learning' consisted of three items ($\alpha= 0.61$) and accounted for 5.1 per cent variance ($e=1.63$). The sixth factor (F6), 'appropriate curriculum activities' consisted of three items ($\alpha= 0.57$) and accounted for 4.6 per cent variance ($e=1.47$). The seventh factor (F7), 'appropriate learning' consisted of three items ($\alpha= 0.50$) and accounted for 3.8 per cent variance ($e=1.20$). The eighth factor (F8), 'inappropriate classroom management' consisted of two items ($\alpha= 0.43$) and accounted for 3.4 per cent variance ($e=1.09$).

Tests of reliability were run on each of the eight factors. The results are reported in table 4.6.

Table 4.6-Factor Analysis of Instructional Activity Scale

Factor 1-Appropriate Activities			
Eigenvalue 5.36			
	Factor Loading	Mean	Standard Deviation
(6) play with games and puzzles	.78	4.43	.91
(2) select centre	.74	4.13	1.17
(8) sing and/or listen to music	.69	4.67	.70
(9) move creatively	.67	4.06	.90
(11) use manipulatives	.67	4.12	1.08
(10) colour and cut freely self drawn shapes	.65	4.10	.85
(22) coordinate their own activities in centres	.49*	3.56	1.04
(3) participate in dramatic play activities	.43	3.72	1.08
Cronbach's alpha	.82		
Factor 2-Inappropriate Literacy Activities			
Eigenvalue 4.30			
(5) do creative writing	.76	3.70	1.30
(20) copy from chalkboard	.72	2.70	1.50
(12) do phonics activity	.67	3.67	1.40
(13) read in ability level groups	.66	3.17	1.53
(4) listen to recordings of stories	.62	3.54	1.00
(17) practice handwriting on lines	.60	3.06	1.60
Cronbach's alpha	.81		
Factor 3- Inappropriate Instruction			
Eigenvalue 2.89			
(14) worksheets	.80	4.02	1.28
(15) use flashcards	.65	4.00	1.17
(19) colour and/or cut predrawn shapes	.63*	3.40	1.10
(23) rewards for good behaviour	.46*	3.90	1.06
Cronbach's alpha	.70		

* refers to items that cross-loaded on more than one factor.

Table 4.6- Factor Analysis of Instructional Activity Scale- Continued

Factor 4-Appropriate teaching strategies			
Eigenvalue 2.00			
	Factor Loading	Mean	Standard Deviation
(30) do health and safety activities	.61	3.50	1.00
(1) build constructions	.54	3.32	1.05
(16) rote counting	.51*	3.80	1.28
(27) outdoor planned activities	.45	3.40	1.00
(22) coordinate own activities in centres	.41	3.56	1.04
(31) draw, paint, and use other art media	.40*	4.30	1.00
Cronbach's alpha	.57		
Factor 5- Inappropriate Learning			
Eigenvalue 1.63			
(21) teacher directed instruction	.82	3.70	1.34
(16) rote counting	.59*	3.80	1.28
(19) colour and/or cut pre drawn shapes	.40*	3.40	1.10
Cronbach's alpha	.61		
Factor 6- Appropriate curriculum activities			
Eigenvalue 1.47			
(28) multicultural and non-sexist activities	.65	2.80	1.13
(32) integrated math problems	.59	3.30	1.27
(29) math activities to learn math facts	.53	3.50	1.16
Cronbach's alpha	.57		
Factor 7- Appropriate Learning			
Eigenvalue 1.20			
(18) participate in hands on projects	.77	3.52	1.01
(31) draw, paint, and use other art media	.53*	4.30	1.00
(23) rewards for good behaviour	.50*	3.88	1.06
Cronbach's alpha	.50		
Factor 8- Inappropriate Classroom Management			
Eigenvalue 1.09			
(26) get placed in time out	.83	2.40	1.00
(24) lose special privileges	.72	2.10	1.13
Cronbach's alpha	.43		

* refers to items that cross-loaded on more than one factor.

Five of the items relating to the frequency of the activities cross- loaded:

Item 16: *participate in rote-counting* cross- loaded on factors 4-appropriate teaching strategies and factor 5- inappropriate learning.

Item 19: *colour and/or cut pre-drawn shapes* cross- loaded on factors 3- inappropriate instruction and factor 5- inappropriate learning.

Item 22: *coordinate their own activities in centres* cross- loaded on factors 1- appropriate activities and factor 4- appropriate teaching strategies.

Item 23: *receive tangible rewards for good behaviour /performance* cross- loaded on factors 3- inappropriate instruction and factor 7-appropriate learning.

Item 31: *draw, paint, work with clay, and use other art media* cross- loaded on factors 4- appropriate teaching strategies and factor 7- appropriate learning..

There were two items that did not load on any of the factors.

Item 7: *explore life science materials such as animals and plants, and/or physical science materials such as wheels and gears*

Item 25: *take tests*

From these eight factors, two activity subscales were created by summing the appropriate and inappropriate items of each factor separately: ‘developmentally appropriate practices’ (DAP), which included 17 items with a Cronbach’s alpha of .80, and ‘developmentally inappropriate practices’ (DIP) which comprised 13 items with a Cronbach’s alpha of 0.74. The value of DAP scores ranged from 36 to 78 with M=64.15 and an SD=8.55, while the value of DIP scores ranged from 18 to 59 with M=43.32 and an SD=8.32 (table 4.7).

Table 4.7- Descriptive Statistics for DAP and DIP

	N	Minimum	Maximum	Mean	Std. Deviation
DAP	127	36.00	78.00	64.15	8.55
DIP	130	18.00	59.00	43.32	8.32

Discussion

The two instruments Teachers Belief Scale (TBS) and the Instructional Activity Scale (IAS) gave specific descriptions of teachers' views about children, curriculum, instruction, and learning in early childhood classrooms. The factors that emerged from both the TBS and the IAS were fairly strong and independent and were conceptually logical. In a way they fit with the theory of DAP. The two inappropriate belief factors showed that teachers strongly believed in the importance of providing a structured approach to teaching literacy and reliance on tests. The factors that received the highest loading dealt with inappropriate beliefs and activities.

The first factor in the TBS included many inappropriate literacy activities such as the use of flash cards, letter recognition, and colouring within lines. A similar factor was identified in the study done by Charlesworth et al., (1993). Teachers do believe in a more skill-based approach to teaching reading and writing. Classroom observation highlighted teachers' emphasis on worksheets rather than whole language orientation. Story time is an important component of an emergent literacy classroom and provides opportunity for talking about print, its features, and for constructing meaning. Yet, teachers perceived it as less important than having children receive instruction in letter and word recognition and using worksheets.

The second inappropriate factor had to do with the use of tests as a way of assessing children and using curriculum content as separate subjects rather than an integrated whole. Given that several respondents indicated that they do not teach all the subjects, it was only natural for them to endorse a more subject-based approach rather than thematic teaching.

In examining the five appropriate factors on TBS, teachers strongly believed in the importance of providing a positive social climate for children. This was evident

in the second factor that explained 12.1 % of the variance. Interviews with teachers clarified that factor further. Some teachers did voice their belief that children nowadays are in more need of emotional and social support given the changes in family structure and dynamics.

On the other hand, teachers believed in the importance of providing extrinsic rather than intrinsic rewards to motivate children. It is worth noting that the item that dealt with appropriate guidance beliefs 'for strategies like setting limits, problem solving, redirection to be used to help guide children's behaviour' did not load on any factor. This may be due to the fact that teachers placed less value on that item.

This issue has been explored by Al-Banna (1984). In her study, she found that early childhood Lebanese teachers tend to use more democratic approaches in managing children in secular schools. However, in general, teachers exhibited more autocratic attitudes towards children than democratic ones. A lot of the classroom management aspect has to do with the cultural attitudes towards children and child rearing. The dominant cultural image of the child in Arab cultures is that of the quiet child or the polite one who obeys without questioning.

Teachers who are not trained in the new techniques of classroom management will often repeat what other generations have done before or rely on their own experiences at home, school community (Al-Banna, 1984).

The most appropriate beliefs reported as important by teachers were in their encouragement of children to communicate with their peers, allowing children to select their own activities and making them work in small groups.

In their self-reported practices on the IAS scale, there were more variations in teachers' responses. Eight factors in this study emerged accounting for 62.31% of the variance. These results are similar to the findings of Charlesworth et al. (1993), where

the factor analysis produced seven factors accounting only for 57.9% of the variance. In their study, three factors included developmentally appropriate activities and four included developmentally inappropriate activities.

Of the eight factors in this study, four were inappropriate having to do with literacy activities, teaching strategies, classroom management, and learning activities. Teachers reported that they engage in many teacher-directed literacy activities such as using worksheets, colouring within the lines, copying from chalkboard, using flashcards more frequently than providing children with opportunities to engage in creative writing activities. Classroom observation substantiated these findings where in almost all classrooms teachers introduce worksheets or colouring pages. Furthermore, among the least appropriate activities was the use of penmanship which teachers tended to do more frequently.

Much of the activities remain centred on the isolated, technical teaching of the basic three R's that are teacher-framed. In most classrooms observed, teachers assign the centres to be used for that day. During calendar time, the teacher reviews the days of the week, weather, and the plan of the day. In one classroom, the teacher holds the worksheet on a certain letter and explains it and divides the children into small groups. One group works with her on the worksheet while the others are among pre-assigned groups working in the 'centres open today'. The same procedure is done for explaining math concepts.

Reading to children is one of the best ways to model literacy skills and enhance concepts of print and literacy conventions. Books on any given day can also be used to introduce or reinforce a theme or concept that is being taught, for enjoyment and as a filler or calming activity. In most classrooms, story reading was limited and took place usually after recess or just before children go home. This

deprives the child from interacting with the book or even giving the child a sense of what the reading process is all about. Furthermore, teachers do not use story reading as a springboard or even extension for other classroom activities.

Teachers frequently engaged their children in appropriate practices such as playing with puzzles, manipulative, and using of dramatic areas. Teachers also encouraged children to communicate. This was evident in one classroom in a low SES school where the dramatic centre was well designed with plenty of materials and props for children to develop oral communication skills. During free play and group time, children were observed to practice a lot of their language skills.

Although teachers believed in fostering the social and emotional needs of children yet in their reported practices, they rely a lot on the use of rewards in disciplining children. Teachers do provide free-play but within a structured academic activity.

Therefore, the beliefs teachers have about children are embedded in how they respond to children's ideas and behaviours. These beliefs are most influential in the choices that teachers make in relation to curriculum content and choice of activity. For example, classroom practices such as the use of stickers as rewards clearly demonstrate that the traditional conceptions of power and authority still dominate teachers' beliefs. This finding is similar to what was reported about Lebanese early childhood teachers attitudes concerning issues of discipline (Al-Banna, 1984). Cross-cultural studies on teachers' beliefs and practices have also demonstrated the role of social and cultural views on discipline (Carlson et al., 1997; Parmer & Hoot, 1995).

Research Question 2: *What is the nature of the relationship between teachers' self-reported beliefs and self-reported practices?*

To investigate the nature of the relation between reported beliefs and practices, a correlation analysis was performed. In table 4.8, the Pearson correlation coefficient showed that there is a moderate relationship between developmentally appropriate beliefs and developmentally appropriate practices ($r=0.47$, $p=0.001$) and a somewhat stronger relationship between developmentally inappropriate beliefs and practices ($r=0.62$, $p=0.001$). These findings reveal that the consistency in self-reported beliefs and practices is stronger among teachers who endorse a developmentally inappropriate approach to educating young children.

Table 4.8- Correlations between self-reported beliefs and self-reported practices

		DAP	DIP
DAB	Pearson Correlation	.472**	-.071
	N	122	125
DIB	Pearson Correlation	.057	.615**
	N	121	124

** Correlation is significant at the 0.01 level (2-tailed).

These findings were consistent with previous USA studies (Charlesworth et al. 1991), which indicated a moderate, statistically significant correlation between developmentally appropriate beliefs and practices ($r=0.63$, $p=0.001$) and a stronger relationship between inappropriate beliefs and practices ($r=0.71$, $p=0.001$). In a later study based on a larger sample, Charlesworth et al. (1993) confirmed their earlier findings about the moderate correlation between teachers' appropriate beliefs and practices ($r=0.53$, $p=0.001$) and the strong correlation between inappropriate beliefs and practices ($r=0.66$, $p=0.001$).

Research Question 3: *Are teachers' self-reported beliefs and practices consistent with their actual observed practices?*

To determine whether teachers' self reported practices correlate significantly with the actual observed practices, the scores of the Classroom Practices Inventory (CPI) were summed up into two scores: teacher directed programme with inappropriate social climate focus and child-centred programme with appropriate social climate focus. The teacher-directed index is composed of 11 items from the CPI, while the child-centred index is composed of 15 items.

Descriptive statistics for these variables are shown in table 4.9 which shows that DAB and DAP have higher means than DIB and DIP but lower variation (lower standard deviations).

Table 4.9: Descriptive Statistics for Self-Reported and Observed Beliefs and Practices, Teacher-Directed and Child-Centred Indices

	Mean	Std. Deviation	N
DAB	93.83	5.42	18
DIB	39.89	9.35	18
DAP	66.44	6.06	18
DIP	40.56	8.20	18
Child Centred	42.89	6.01	18
Teacher-Directed	33.89	7.80	18

Table 4.10 shows a strong association between reported developmentally inappropriate beliefs (DIB) and observed teacher-directed practices ($r = 0.71$), which reflect the developmentally inappropriate practices.

Table 4.10- Correlations between Self-Reported Beliefs and Practices and Observed Practices

		DAB	DIB	DAP	DIP	Child	Teacher
DAB	Pearson Correlation	1	.188	.400	-.085	-.304	.371
DIB	Pearson Correlation	.188	1	-.083	.669**	-.390	.706**
DAP	Pearson Correlation	.400	-.083	1	-.352	.190	.086
DIP	Pearson Correlation	-.085	.669**	-.352	1	-.129	.295

** Correlation is significant at the 0.01 level (2-tailed).

In other words, teachers who endorse a teacher-directed approach tend to practice what they believe in. Inappropriate beliefs have been found to be consistent with observations of practice in previous research studies (Chralesworth et al., 1993; McMullen, 1999; Smith & Spodek, 1988; Stipek & Byler, 1997). However, there was no significant association between self-reported and observed appropriate practices, an expected finding since respondents prefer to self-report more appropriate than inappropriate practices.

A close examination and comparison between the self-reported practices and the actual observed practices of the eighteen teachers revealed some of the inconsistencies between the reported and the observed items. Table 4.11 reveals the wide discrepancy between most of the observed items on the CPI and the corresponding teachers' self-reported appropriate practices on the IAS. The field notes compiled during classroom observations, which provided a wider lens into classroom life, also corroborates these inferences.

Table 4.11 -Observed Classrooms with Appropriate Practices Versus Self-Reported Practices

Observed Practices Using CPI			Corresponding Reported Practices Using IAS	
CPI Item No.	Item	Percentage of classrooms	IAS Item No.	Average Percentage of classrooms
1	Children select their own activities from a variety of learning areas the teacher prepares.	17 %	2, 22	67 %
3	Children are involved in concrete, three-dimensional learning activities, with materials closely related to children's daily life experiences.	44 %	1, 11	72 %
5	Children are physically active in the classroom, choosing from activities the teacher has set up and spontaneously initiating many of their own activities.	22 %	3, 9, 27	67 %
6	Children work individually or in small, child chosen groups most of the time. Different children are doing different things.	39 %	1,3, 22	46 %
8	Teacher asks questions that encourage children to give more than one right answer.	56 %	N.A.	
11	Teachers use activities such as block building, measuring ingredients for cooking, and drawing to help children learn concepts in math, science, and social studies.	22 %	31, 30	67 %
12	Children have planned lessons in writing with pencils, colouring pre-drawn forms, tracing, or correct use of scissors.	33 %	5	94 %
13	Children use a variety of art media, including easel, finger painting, and clay in ways of their choosing.	6 %	10, 31	89 %

Table 4.11 -Observed Classrooms with Appropriate Practices Versus Self-Reported Practices- Continued

Observed Practices Using CPI			Corresponding Reported Practices Using IAS	
CPI Item No.	Item	Percentage of classrooms	IAS Item No.	Average Percentage of classrooms
15	When teachers try to get children involved in activities, they do so by stimulating children's natural curiosity and interest.	56 %	N.A.	
16	The classroom environment encourages children to listen to and read stories, dictate stories, notice print in use in the classroom, engage in dramatic play, experiments with writing by drawing, copying, and inventing their own spelling.	11 %	3, 4, 8	74 %
19	Children have daily opportunities to use puzzles, Lego, markers, scissors or other similar materials in ways the children choose.	22 %	6, 11	97 %
21	Teacher shows affection by smiling, touching, holding, and speaking to children at their eye level throughout the day, but especially at arrival and departure times.	33 %	N.A.	
22	The sound of the environment is marked by pleasant conversation, spontaneous laughter, and excitement.	22 %	N.A.	
24	The teacher talks about feelings. She encourages children to put their emotions (positive and negative) and ideas into words.	50 %	N.A.	
26	The teacher uses redirection, positive reinforcement, and encouragement as guidance or discipline techniques	33 %	N.A.	

N.A. = relevant item(s) are not available in the IAS questionnaire.

In a DAP classroom, language development and emergent literacy are encouraged through the use of whole language approaches which surround learning throughout the day in meaningful activities. In some of the teachers' self-reported practices, the items that had the highest loading on appropriate practices did not correspond to actual practices.

For example, table 4.11 indicates that 74 % of those teachers reported that they engage children in story reading, creative writing and dramatic play. However, only 11 % of the observed classrooms engaged in such activities. Furthermore, 67 % of the teachers indicated that they allow children to select their own activities whereas only 17 % of classrooms were observed doing that. In these classrooms, teachers focused on the teaching of isolated skills. The following vignette illustrates the practice of one teacher and how children make sense of their literacy learning.

Class C- KGII-High SES- other major

The teacher was explaining the letter 'c'. She asked students to give her words that begin with the letter 'c'. She allowed children to experiment writing the words they say and then she wrote the correct word under what they have written.

One student said: kitten

Teacher said: No, kitten does not begin with the letter 'c'. She continued saying that "letter 'c' plays tricks on us. Sometimes it is a soft 'c' and other times it is a hard 'c'".

The student insisted that kitten and cat begin with the same sound and pointed to the alphabet chart to prove his point. It just happened that the picture under the letter K is kitten and the one under the letter c was that of a cat. This explains the child's reasoning in trying to make sense of what he understood while the teacher was focusing on the letter sound aspect. The child was thinking globally while the teacher was emphasizing parts.

In addition to literacy practices, the inter-relatedness of developmental domains in a DAP classroom is reflected in how the curriculum is integrated whereby themes and projects link together content from various subject areas. Classroom

observation showed that calendar time is a daily ritual in every classroom and grade level. The amount of time spent on the calendar activity varied between 15 to 30 minutes. All classes had similar 'plan of the day' clearly posted. The plan emphasized English, Math, and Arabic. None of the classrooms observed included any allotment to science.

This practice demonstrates how children would come to see that subjects are separate rather than connected and meaningful.

Play is an important curricular tool that promotes learning through providing children with opportunities for concrete, hands-on experiences. Vygotsky stressed the value of play as leading to development whereby written language grows out of oral language through the vehicle of symbolic play. Therefore, teachers need to intervene to extend the play and elaborate on children' ideas so that they help children move beyond their Zone of Proximal Development- ZPD (Brewer, 2001). Thus, the type of play experience observed can to a certain extent determine the practices of teachers.

In their self-reported practices, 97 % indicated that they provide children with daily opportunities to use concrete materials in learning. In actual observed practice, only 33 % of classrooms engaged in such activities.

The following example shows how one teacher did not interfere with their free play or elaborate on the valuable interaction that took place. Yet, she acknowledged their feelings of disappointment.

Class F-KGII, Middle SES-At Block Area

As the boys are playing, they start talking. Only one girl is now playing with them.

St 1-“ We will build a big house and put 30 animals”

St 2- 30 is not big, 100 is

St 3- No infinity is

St 1 - We will make a place to park the cars and to have water for animals.

Just then the teacher announces that it is time to switch centres. The boys say please we don't want to stop. One boy is about to cry. His friend says: Tomorrow, we have free play; we can build it better. The teacher sees the disappointment on their faces and says: "Okay. Those who will play next in the block area please pay attention to M.... work, he wants to save it.

The teacher was busy with other small groups that she missed on what was taking place during block play. Children were negotiating their understanding of math, using a lot of social and language skills, experimenting with their ideas and engaging in planning and carrying out their plans. Though the teacher provided opportunities for free play with concrete materials, yet she did not make use of these experiences for her instruction.

Teachers may have more appropriate beliefs than they actually practice them (Jones & Gullo, 1999), possibly because of contextual factors. These factors relate to the organizational and cultural context in which they work (Charlesworth et al., 1991; 1993; Wood and Bennett, 2000).

An interview with one of the teachers who had an early childhood degree provided more insight into why she reported appropriate beliefs but did not practice them.

T- 39: My students are going to first grade next year. Teachers there expect them to read, write, do math and even dictation. First grade teachers rely on me to make those children ready. Also, I do not have the opportunity to engage them in activities because for example they have an art teacher and a music teacher so these activities are not done by me but by that subject teacher

who teaches from k-12. I would have loved to make art and music part of my classroom activities especially that my major was interior design but the school has a different agenda.

As for the inappropriate practices, table 4.12 shows the most relevant items between the CPI and the self-reported practices of the eighteen teachers where the discrepancy between the two sets is generally much less wide than the discrepancy noticed in table 4.11. For example, teachers reported that they conduct large-group instruction for only 33 % of the time while in actual practice it was done in 50 % of the classrooms (table 4.12). When teachers try to get children involved in activities, 56% of them claimed that they do so by requiring their participation, giving rewards, disapproving of failure to participate. In reality, this was observed in only 45% of the classrooms.

Table 4.12- Observed Classrooms with Inappropriate Practices Versus Self-Reported Practices

Observed Inappropriate Practices Using CPI			Corresponding Reported Practices Using IAS	
CPI Item No.	Item	Percentage of Classrooms	IAS Item No.	Average Percentage of classrooms
2	Large group, teacher directed instruction is used most of the time. Children are doing the same things at the same time.	50 %	21	33 %
4	The teacher tells the children exactly what they will do and when. The teacher expects the children to follow her plans.	67 %	N.A.	
7	Children use workbooks, ditto sheets, flashcards, and other abstract or two-dimensional learning materials.	89 %	14 15	61 %
9	Teacher expects children to sit down, watch, be quiet, and listens, or do paper and pencil tasks for major periods of time.	33 %	N.A.	
10	Reading and writing instruction emphasizes direct teaching of letter recognition, reciting the alphabet, colouring within the lines, and being instructed in the correct formation of letters.	50 %	12, 13, 16, 17, 20	64 %
14	Teachers expect children to respond correctly with one right answer. Memorization and drill are emphasized.	6 %	N.A.	
17	Art projects involve copying an adult-made model, colouring pre-drawn forms, or following other adult directions.	17 %	19, 20	28 %

Table 4.12- Observed Classrooms with Inappropriate Practices Versus Self-Reported Practices -Continued

Observed Inappropriate Practices Using CPI			Corresponding Reported Practices Using IAS	
CPI Item No.	Item	Percentage of Classroom	IAS Item No.	Average Percentage of classrooms
18	Separate times or periods are set aside to learn material in specific content areas such as math, science, or social studies.	83 %	N.A.	
20	When teachers try to get children involved in activities, she does so by requiring their participation, giving rewards, disapproving of failure to participate.	45 %	23	56 %
23	The teacher uses competition, comparison as guidance and discipline techniques.	28 %	23, 24	34 %
25	The sound of the environment is characterized either by harsh noise or enforced quiet.	6 %	N.A.	

N.A. = relevant item(s) are not available in the IAS questionnaire.

It is noteworthy that there were several similarities and differences among the eighteen classrooms observed. Regardless of the SES of the school, all classrooms were rich in print and provided rich display of children's own work. Differences became apparent in the learning centres available for children. In two of the low SES schools, the dramatic area as well as the reading area was a major visible component of the preschool programme. However, in other low SES, and due to the small size of the class, learning centres were few. In middle and high SES schools, block areas and manipulatives were within easy access to children but many did not have a dramatic play area.

Summary

This chapter identified the factors that comprise the beliefs and practices of Lebanese early childhood teachers and determined the extent to which they align with the DAP theory. Factor analysis produced a host of factors from which four dependent variables were composed: developmentally appropriate beliefs, developmentally appropriate practices, developmentally inappropriate beliefs, and developmentally inappropriate practices. Examination of the relationship between teachers' self-reported beliefs and practices revealed a strong correlation between the inappropriateness of teachers' beliefs and practices and a moderate correlation between appropriate beliefs and practices. Exploration of these beliefs and practices with the actual observed practices identified a strong association between the self-reported inappropriate beliefs and actual observed practices. No association was found between self-reported appropriate beliefs and practices and actual practices. A substantive discussion of these findings made use of the field work observations and notes and in-depth interviews of some teachers. There are several factors that could be promoting or impeding teachers' implementation of their appropriate beliefs and practices. These will be discussed in chapter five.

Chapter Five

Determinants of Teachers' Beliefs and Practices: Findings and Discussion

This chapter is the second of two consecutive chapters that present and discuss the findings of the study in relation to the research questions and hypotheses presented in chapter one. It deals with the three research questions that were not tackled in chapter four and that centre around the factors that determine teachers' self-reported beliefs and practices. More specifically, the chapter identifies the teacher and school characteristics that significantly influence the self-reported beliefs and practices of Lebanese early childhood teachers. Subsequently, the nature and strength of the association between the identified teacher and school characteristics on the one hand and beliefs and practices on the other are examined. Throughout the chapter, statistical analysis is followed by a substantive discussion of the findings using relevant literature as well as field notes and interview transcripts.

The interpretation of the results of any study draws on the characteristics of the population intended for analysis. Hence, a brief description of the unique characteristics of the participants and the schools they teach in is presented in table 5. This table sheds light on the teachers' education background, age, years of experience, the amount of monthly salary and the type of school they work in. The subsequent discussions will refer to this table to highlight key ideas.

The data indicated that the majority of teachers who teach in low SES schools tend to have lower education. About 56.3% of teachers who teach in low SES have no bachelor's degree. Schools with high SES have the following characteristics: their teachers' average age is 37.4, and the average years of teaching experience is 13.2 years. None of their teachers is a novice teacher; the minimum years of experience is

5 years. This is in contrast with teachers from all the other SES schools where there are novice teachers with only one year of experience and teachers' average age is less than 32 years.

Furthermore, all teachers in the high SES schools earn above 730 US dollars whereas none in the low or lower middle earn that much. About one-third of the teachers in lower middle SES schools earn 330-430 US dollars. In low SES schools, teachers earn fewer than 330 US dollars (25 %). The largest percentage of teachers with early childhood qualifications (18.75%) teaches in high SES schools and also those with elementary education (25%) teach in high SES schools. Most of those who have other majors tend to teach in middle, lower middle and low SES schools.

Table 5.1- Distribution of Teachers' Characteristics by School SES

	High SES	Middle SES	Lower middle SES	Low SES
Number of teachers	16	40	31	48
Average age	37.4 (SD=5.14) (Range: 31- 50)	29.88 (SD=9.94) (Range: 21- 47)	31.47 (SD=5.01) (Range: 20- 55)	28.77 (SD=6.91) (Range: 20- 44)
Years of experience	M=13.19 (SD=6.68) (Range: 5- 28)	M=8.35 (SD=5.78) (Range: 1-26)	M=8.39 (SD=5.02) (Range: 1- 19)	M=7.02 (SD=6.34) (Range: 1- 23)
Salary in dollars				
Under 330 \$		8%	21.4%	25%
330-430 \$		4.7%	35.7%	6.24%
431-530 \$	-	23%	28.6%	25%
531-630 \$	-	26%	14.3%	18.8%
Above 630 \$	All above 630	13%	-	4.17%
Highest Education Level				
No degree	6.25 %	40%	61.29%	56.3%
Early childhood	18.75%	15%	3.23%	4.2%
Elementary education	25%	5%	—	12.5%
Other majors	50%	40%	35.48%	27.1%

Research Question 4: *What is the nature of the relationship between teachers' self-reported beliefs and self-reported practices on the one hand, and teacher characteristics on the other?*

Teacher characteristics have to do with several aspects: personal, educational, social and economic as well as external influences such as influence of coordinator, parents, school principal and government regulations. Teacher variables included marital status, age, salary, years of experience, major, the type of degree (high school or above), teaching diploma, relevant courses taken in college (of special significance are: introduction to early childhood, teaching reading, classroom management, child development, practicum in early childhood), and whether or not they were classroom teachers. As for gender, it was not included because all teachers were females. Operational definition and descriptive characteristics of each of these variables was presented earlier in table 4.1.

In examining the nature of the relationship between each of these independent variables and each of the four dependent variables on reported beliefs and practices- DAB, DIB, DAP, and DIP, a one-way analysis of variance (ANOVA) was conducted. Each of the independent variables that showed statistical significance became part of the set of independent variables that entered a MANOVA model with each of the dependent variables. The end result is the following four models represented in the ANOVA tables 5.2-5.5.

In explaining the nature of the association between each independent and dependent variable in any given statistical model, the means of categories of that independent variable is used. To avoid crowding the chapter with details, these means are placed in the Appendix. There were some significant findings:

- Marital status was not significantly related to beliefs or practices.

- Teacher's age, which was collapsed into three groups, showed a significant relationship at the 0.05 level with both DIB and DIP. For young teachers (19-29) and old teachers (40+), the DIB and DIP scores were high whereas teachers whose ages fell between 30-39 years tended to have much lower values of DIB and DIP.
- The relationship between having a university degree and DIB was significant at the 0.05 level. Further examination of the means of the categories of the university major variable showed that teachers who had an early childhood degree had the lowest DIB followed by those with elementary degree and other majors. Teachers who had no university degree tended to have the highest DIB.
- DIB and DIP were significantly correlated at the 0.05 level for teachers who held both a university degree and a teaching diploma. Those teachers had DIB and DIP lower than other college degree holders who had no teaching diploma.
- As for the courses taken, only those courses that had to do with the early childhood major were examined. The findings for these courses showed that:
 - The child development course and the practicum in early childhood course were significantly related to both DIB and DIP at the 0.05 level.
 - Courses like: introduction to early childhood education, classroom management, teaching reading, and methods and materials in early childhood were all significantly related only with DIB at the 0.05 level.
- In examining the salary of the teachers, there was a significant negative relationship between this variable and both DIB and DIP. Both DIB and DIP decrease with increasing salary.
- Whereas years of experience did not bear any significant relationship with DIP and DIB, the variable 'classroom teacher' did at the 0.05 level.

- As for external influences, teachers who felt that the school principal had a great influence on their implementation of the curriculum had DIB scores that were significantly higher than those whose principal had limited influence. The role of the coordinator had no significant impact on DIB.
- Parents' role was seen by teachers as having a great deal of influence. This role showed a statistically significant association with scores of DIB, DAB, and DAP.
- Fringe benefits were significantly related to DAP at the 0.05 level. Teachers who were satisfied with the fringe benefits that the school offered were using more developmentally appropriate practices than those who were not satisfied.
- Satisfaction with the availability of resources for instruction had a significant effect on both DAB and DAP at the 0.05 level.

All of these variables in teacher characteristics were analyzed together using MANOVA to come up with the set of characteristics that significantly impact the beliefs and practices of Lebanese early childhood teachers.

DAP and Teacher Characteristics

The DAP model in table 5.2 is significant at the 0.001 level, and the independent variables combined explain 16 % of the variation in DAP. Teacher's education level as well as two external influences significantly affects the frequency of their appropriate practices.

Table 5.2- ANOVA table for the Developmentally Appropriate Practices (DAP) and Teacher Characteristics

Source	df	Mean Square	F	Sig.
Corrected Model	5	299.64	4.70	.001
Intercept	1	140376.77	2201.93	.000
Highest Education Level	3	179.12	2.81	.042
Parent Influence	1	499.10	7.83	.006
Availability of Resources for Instruction	1	374.36	5.87	.017
Error	121	63.75		
Total	127			
Corrected Total	126			

R Squared = .163 (Adjusted R Squared = .128)

Teachers who hold a degree in early childhood education had the highest frequency of developmentally appropriate practices ($M=67.72$) while those who held a degree in elementary education had the lowest frequency of developmentally appropriate practices ($M=58.05$). The DAP scores for teachers who had other or no university degrees lied between these two bounds ($M=63.82$ and 63.15 respectively).

The two external influences that had a positive effect on DAP were: parents' influence and availability of resources for instruction. Teachers who felt parents had a great rather than a limited influence on their teaching scored higher on DAP, as did those who were satisfied with the instructional resources available to them.

DAB and Teacher Characteristics

The DAB model for teacher characteristics in table 5.3 is significant at the 0.001 level. The independent variables explained only 8 % of the variation in DAB. Two variables: influence of parents and availability of instructional resources significantly influence the frequency of appropriate beliefs of teachers.

Table 5.3: ANOVA table for the Developmentally Appropriate Beliefs (DAB) and Teacher Characteristics

Source	df	Mean Square	F	Sig.
Corrected Model	2	297.48	5.48	.005
Intercept	1	377597.15	6960.92	.000
Parents Influence	1	269.92	4.98	.027
Availability of Resources for Instruction	1	257.94	4.76	.031
Error	126	54.25		
Total	129			
Corrected Total	128			

R Squared = .080 (Adjusted R Squared = .065)

Teachers who felt parents had a great rather than a limited influence on their teaching scored higher on DAB, as did those who were satisfied with the educational resources that the school made available to them.

DIB and Teacher Characteristics

The DIB model in table 5.4 is significant at the 0.001 level, and the independent variables combined explain 41 % of the variation in DIB. Salaries, influence of the school principal, being a classroom teacher, and three specific courses taken in college all have significant effects on the frequency of inappropriate beliefs.

Salary bears a negative association with DIB. As the teacher's income increases, her beliefs tended to be less inappropriate, and where the influence of the school principal is great, the beliefs are more inappropriate than when that influence is limited. By contrast, being a classroom instead of a subject-matter teacher is associated with a lower frequency of inappropriate beliefs.

As for specialized courses, teachers who took a course in introduction to early childhood were inclined to have more inappropriate beliefs than those who did not, while teachers who took a child development course or a practicum course in early childhood had lower scores on DIB than those did not take such courses.

Table 5.4: ANOVA table for the Developmentally Inappropriate Beliefs (DIB) and Teacher Characteristics

Source	df	Mean Square	F	Sig.
Corrected Model	8	401.45	10.00	.000
Intercept	1	82570.87	2056.95	.000
Salary	3	379.72	9.46	.000
School Principal Influence	1	259.67	6.47	.012
Classroom Teacher	1	191.93	4.78	.031
Course-Child Development	1	172.72	4.30	.040
Course- Introduction to Early Childhood	1	276.45	6.89	.010
Course- Practicum in Early Childhood	1	444.13	11.06	.001
Error	115	40.14		
Total	124			
Corrected Total	123			

R Squared = .410 (Adjusted R Squared = .369)

DIP and Teacher Characteristics

The DIP model in table 5.5 is significant at the 0.001 level, and the independent variables combined explain 23 % of the variation in DIP. Age, salary, and a certain course taken in college are significant determinants of inappropriate practices.

The oldest age group of teachers (40 years and over) showed the most frequent inappropriate practices ($M=46.36$) followed by the youngest age group 19-29 years of age ($M=42.85$). The middle-age group 30-39 years, however, uses the least frequent inappropriate practices ($M=40.61$). As for salary, it varies negatively with DIP in a monotonic manner. As the teacher's income increases, her practices tend to be less inappropriate. Furthermore, teachers who took a practicum course in early childhood in college scored significantly lower on DIP than those who did not take this course.

Table 5.5: ANOVA table for the Developmentally Inappropriate Practices (DIP) and Teacher characteristics

Source	df	Mean Square	F	Sig.
Corrected Model	6	328.50	5.87	.000
Intercept	1	84616.86	1511.18	.000
Salary	3	280.09	5.00	.003
Age of the Teacher	2	207.11	3.70	.028
Course-Practicum in Early Childhood	1	220.09	3.93	.050
Error	116	55.99		
Total	123			
Corrected Total	122			

R Squared = .233 (Adjusted R Squared = .193)

Discussion

The data indicates that teachers' beliefs and practices are influenced by the following teacher characteristics: age, teacher's education background, specialized courses, salary, and the external influences of administrators, parents, and availability of resources for instruction.

Age of the Teacher

Teachers whose ages fell between 30-39 years of age appeared to have the least inappropriate practices. Many of these teachers have had more than five years of teaching experience. Classroom reality and daily interaction with children may have influenced their practices. An interview with T-108 who is 35 years of age illustrates how classroom life has altered her practices:

T 108- Middle SES- with more than 10 years experience, elementary major.

I do not teach today the way I used to teach when I first started. Now, I find myself listening more and observing children as they play. I'll give you an example, in the past children used to imitate me teaching and they would use desks and chairs to role-play teacher. In the last two years, I noticed that they do imitate me but now they sit on the floor in a circle and hold a book

and ask “what do you see?” You see, I read them Bill Martin’s book of Brown Bear, Brown Bear, what do you see? And also I always ask them prediction questions about the story before we read. They are the reason I changed.

Young teachers engaged more frequently in inappropriate practices despite the fact that many of them may have been exposed to the latest best practices in their courses. An interview with one young teacher shed further light on that issue. The teacher has an education major and this is her second year in teaching in a low SES school. This is what she said:

I never realized how much of what I took in my courses and student teaching experience was insignificant to what I encountered in my actual teaching. Nothing in my courses prepared me to what I experienced in my first two years. For example, I learnt about the importance of providing appropriate guidance techniques and thought I had an answer to any problem that might arise in class. I even saw some good guidance techniques in the school I was placed in during my student teaching. However, the school I am currently in is different. I still remember the feeling of helplessness that came over me on my first day of school as I was getting a very active boy to sit down and do his work. I asked him nicely to sit down and this five-year-old cute boy looked at me defiantly and said: “you can’t make me; my father said boys don’t take orders from girls.” That really put me off. With time, I learned to go with the flow so to speak.

This finding can be attributed to what previous research has reported about young teachers. They are in their ‘survival stage’ where they tend to be more concerned with the social and personal dimension of teaching rather than with their instructional ability (Rust, 1994). These dimensions may lead the novice teachers to

develop beliefs that are different from the beliefs they held prior to beginning teaching (McMullen, 1999).

Similarly, Kagan (1992) noted that novice teachers, with little knowledge of pupils and teaching, 'tend to grow more authoritarian and custodial. Obsessed with classroom control, they may also begin to plan instruction designed not to promote learning, but to discourage children's misbehaviour (p. 145).

This finding is in contrast to others who have found that novice teachers had more developmentally appropriate beliefs and practices. This was due to the fact that novice teachers were exposed to DAP in their courses (Buchanan et al., 1998; Vartulli, 1999).

As for the older teachers who were 40 years and above, their significant inappropriate practices may reflect the fact that these teachers have matured enough that they were more likely to hold all students to a common standard and their own self-efficacy has grown weaker (Brousseau et al., 1988). In Al-Banna's study (1984), teaching years of experience did not show any significance in terms of early childhood teachers' attitudes towards children and how they learn.

Highest Education Level

Teachers' educational background explained the influence on teachers' practices. Teachers who have an early childhood education degree tend to have the most appropriate practices whereas those with no degree have the least appropriate practices. Teachers with an early childhood degree are better in providing quality programmes, supportive of creative and social skills and tend to be less punitive of children (Epstein, 1993; Kontos & Wilcox-Hertzog, 2001; McMullen, 1999).

However, findings also showed that teachers who had an elementary education degree and taught early childhood classrooms tended to engage in less appropriate

practices. One possible explanation for this is that teachers with an elementary education major are not exposed to the best practices for teaching young children. So when in charge they rely on the methods and knowledge they acquired in their course preparation. These courses usually prepare teachers for a more structured approach to teaching (Buchanan et al., 1998; Files & Gullo, 2002, Smith, 1997; Vartulli, 1999).

In one classroom, the basic skill orientation and the insistence on one right answer is demonstrated:

Class E- KGII lower-middle SES, teacher with elementary education

All children were working on the same task, which was a review of the beginning letter sounds they now know. Several students were using mirror writing. Interestingly, two children approached one item in different ways. There was a picture of what appeared to be that of a fairy godmother. Children were supposed to write the letter 'f' next to -airy. However, a boy wrote the letter 'k' and a girl wrote the letter 'g'. When asked by the teacher to explain their error, the boy said 'queen' and the girl said 'girl'.

Specialized Courses/Training

The level of specialized course work showed that they contributed to teachers' beliefs and practices. Teachers who have taken child development courses, introduction to early childhood, or took a practicum course had different beliefs and practices.

Teachers' exposures to early childhood theories appear to influence the beliefs of teachers but not in the way one might expect. Teachers who took an introductory course in early childhood had more inappropriate beliefs than those who did not. It seems that college course work in introduction to early childhood did not alter the pre-existing beliefs teachers had about teaching young children.

These beliefs are often influenced by teachers' own views and cultural beliefs about the development of children. There are those who hold a didactic view where it is the adult who determines what the child needs to know. There are also those who agree with the constructivist view that emphasizes the child's strong tendency to gather information and construct ideas. The last group of teachers are those who use a socio-cultural approach, which proposes that children learn to construct ideas through social interaction with a more knowledgeable adult and peers (Daniels & Shumow, 2003). Given the views teachers may have, it is quite unlikely that one course has been able to challenge their beliefs.

However, those who took a practicum course in early childhood education tended to have less inappropriate beliefs and engaged in less inappropriate practices. Teachers who took the practicum course believed it was not important to have children colour within the lines or write within the lines nor did they believe in using worksheets to evaluate children.

Since this course has a practical component, those teachers combined theory and practice in their course work. They were able to observe their cooperating teachers at work and they were confronted with classroom reality. This student teaching experience enabled them to confront the realities of classroom and equip them with techniques once they became teachers of young children. These teachers knew first hand what worked and did not work in early childhood classrooms.

In the following vignette, the lack of specialized courses is reflected in how the teacher used inappropriate practice while engaging children in 'invented spelling'

Class D- KGI Low SES, less than high school

Children were working on a worksheet about animals and writing in their journals as they were drawing. The teacher was with that small group observing

what they wrote. She then wrote the correct spelling for the word they wrote.

Children then erased their own written word and copied the word supplied by the teacher.

Teachers who took child development courses at the college level had less inappropriate beliefs. Taking this course allowed teachers to understand how children learn and what is appropriate for their development.

The following interview that was conducted with one teacher provides significant insight into the impact that education level and specialized courses have on the beliefs and practices of teachers. *T48- Middle SES, 26 years old* said:

I was 19 years old when I entered the classroom as a teacher for the first time. Maybe I was not qualified enough to carry out the responsibility of teaching, or you can say that maybe I could not give those children what they really were supposed to take from formal instructions and methods. But what I am sure of is that I gave them the love that made them happy and eager to come to class daily. I was doing it without any previous experience or education. Last year I took the decision that changed my life. I was studying political science and I recognized that it is for somebody else. My place is there with them, with my sweethearts.

So I took courses in early childhood education, which taught me how to observe children. I learned that elephants are not only grey sometimes they are pink. The sky is not always blue sometimes it is red. I have learnt that things are not stable and they are always changing and growing. I can't express by words the teacher's feeling when her first student reads his first word. The courses have made me feel more responsible of the things I do to the children, because now I know more. I feel I am closer to them too.

Salary of the Teacher

Teachers' beliefs and practices are also influenced by the amount of salary they get. The teachers who were paid the lowest (under 330 dollars) had the most frequent inappropriate beliefs and practices whereas the highest paid (over 530 dollars) exhibited the least frequent inappropriate beliefs and practices. Although no other study, to the best of my knowledge, has examined the effect of salary level on teachers' beliefs and practices, its statistical significance in this study highlights its substantive importance in Lebanon and other Arab countries.

Lebanese teachers are generally underpaid in comparison with holders of similar college degrees who work in non-educational settings of the private sector notably business and engineering. There is considerable variation in the salaries of teachers within and among schools (see table 5) that are due to differences in both academic qualifications of teachers and their social and political status and community network. In the interviews with some teachers, it was clear to me that salaries meant a lot to them and that they felt bitter about the school administration when their salaries were low.

Contextual Influences

The parents, administrative support and availability of resources influenced teachers' beliefs and practices. The more resources teachers had the more likely they were to have developmentally appropriate beliefs and practices. The same can be said about parents support. Interviews with teachers revealed that parents in some low SES schools were very supportive and appreciative. Many of those parents are illiterate and were pleased to see that their children learning so much particularly English.

However, teachers who felt that the principals and not they had the greatest influence tended to use more inappropriate practices. Research has indicated that

school principals tend to have more inappropriate beliefs and practices than teachers, particularly if they were males (Rusher et al., 1992). When administrative support is a source of barrier, teachers engage in more inappropriate practices (Jones et al., 2000).

To sum up, these univariate models attempted to provide a profile of Lebanese teachers who have appropriate and inappropriate beliefs and practices as it relates to teacher characteristics. Lebanese teachers who have developmentally appropriate beliefs and engage in appropriate practices are college graduates who are classroom teachers and whose ages fall between 30-39 years. They have also taken specialized courses related to the field and they earn above 530 US dollars. These teachers are also influenced by external factors. Teachers' beliefs and practices tend to be inappropriate as the salary decreases and the school principal exerts great influence on their planning and implementation of the curriculum. Whenever teachers feel they have no control over their teaching they tend to have inappropriate beliefs (Jones et al., 2000; McMullen, 1999).

Research Question 5: What is the nature of the relationship between teachers' self-reported beliefs and self-reported practices on the one hand, and school characteristics on the other?

School characteristics included the following independent variables: type, region, socioeconomic status, school size, and available grades. Classroom characteristics such as grade level and class size were also included as part of school characteristic. Operational definition and descriptive characteristics of each of these variables was presented earlier in table 4.2.

In examining the nature of the relationship between each of these independent variables and self-reported beliefs and practices- DAB, DIB, DAP, and DIP, a one-way analysis of variance (ANOVA) was conducted. The findings showed the following:

- The socioeconomic status (SES) of the school was significantly correlated at the 0.001 level with DAP, DIB, and DIP. Teachers in the low SES schools have a higher frequency of inappropriate beliefs (MEAN DIB = 48.2) and practices (MEAN DIP = 47.23) than the rest of the teachers with those in the high SES schools scoring the lowest (MEAN DIB = 32.8; MEAN DIP = 35.43). However, another significant finding is that teachers in the low SES schools use more appropriate practices (MEAN DAP = 67.49) than their counterparts in schools of other SES levels especially the high SES (MEAN DAP = 63.53).
- School size showed a significant association with DAP at the 0.001 level. Teachers in schools that are large with more than 1500 students engage in more appropriate practices (M=67.00) than teachers in smaller schools, both the under 500 students category and the 500-1500 students category.
- Available grades in schools also made a difference with regard to the frequency of developmentally inappropriate practices. Higher DIPs were observed in K-6 schools than in K-12 schools.
- Classroom characteristics also showed a significant impact on beliefs and practices of teachers. Class size was significantly related to DIB, DIP, and DAPS at the 0.001 level. Large class sizes (31+ students) were associated with a higher frequency of inappropriate beliefs and practices. However, in examining the means for DAP with class size, considerable variation is evident. Teachers in schools that have small class sizes (0-19) engaged in more appropriate practices (M= 65.27) than their counterparts in the other schools. Yet schools that have the largest class sizes (31+) which were mostly from low SES schools had teachers who exhibited the highest frequency of appropriate practices (M=68.39).

- The grade level was significantly related to DIB and DIP at the 0.001 level. Beliefs and practices were least inappropriate at the preschool level (MEAN DIB = 43.76; MEAN DIP = 39.99) versus the kindergarten level (MEAN DIB = 47.22; MEAN DIP = 47.66).

Each of these independent variables that showed statistical significance became part of the set of independent variables that entered a MANOVA model with each of the dependent variables. The end result is the following four models represented in the ANOVA tables 5.6-5.8.

DAB and School Characteristics

The data showed that none of the variables representing school characteristics showed any statistically significant relationship with DAB.

DAP and School Characteristics

The DAP model in table 5.6 is significant at the 0.001 level, and the independent variables combined explain 25 % of the variation in DAP. School size, class size, and socio-economic status have significant effects on the dependent variable.

Appropriate practices decrease in frequency with socio-economic status rather monotonically, while such practices decrease from small school size (under 500 students) where (M= 59.21) to middle and then to large school sizes (M= 66.06). More appropriate practices (M= 67.93) were reported in small class size (under 20 students) whereas schools with large class sizes (31+) exhibited the least frequent use of developmentally appropriate activities (M= 58.23).

Table 5.6: ANOVA table for the Developmentally Appropriate Practices (DAP) and School Characteristics

Source	df	Mean Square	F	Sig.
Corrected Model	8	290.76	4.94	.000
Intercept	1	179480.81	3047.3	.000
Class Size	3	333.96	5.67	.001
School Size	2	239.37	4.06	.020
SES of the School	3	374.54	6.36	.000
Error	116	58.90		
Total	125			

R Squared = .254 (Adjusted R Squared = .203)

DIB and School Characteristics

The DIB model in table 5.7 is significant at the 0.001 level, with the two independent variables socio-economic status and grade level as explanatory factors. Together, the independent variables explain 43 % of the variation in DIB.

Table 5.7: ANOVA table for the Developmentally Inappropriate Beliefs (DIB) and School Characteristics

Source	df	Mean Square	F	Sig.
Corrected Model	4	784.54	22.07	.000
Intercept	1	167368.60	4709.08	.000
SES of School	3	925.73	26.05	.000
Grade level	1	211.37	5.95	.016
Error	117	35.54		
Total	122			
Corrected Total	121			

R Squared = .430 (Adjusted R Squared = .411)

The socio-economic status and DIB show that the least frequent inappropriate beliefs occur in high SES schools (M=32.16) while the most frequent inappropriate beliefs occur in low and lower-middle SES schools (M=48.31 and 48.48 respectively). Grade level also explains part of the variation in DIB whereby preschool teachers have less frequent inappropriate beliefs than KG2 teachers.

DIP and School Characteristics

The DIP model in table 5.8 is significant at the 0.001 level, and the independent variables combined explain 40 % of the variation in DIP. Socio-economic status and grade level are significant predictors of DIP.

Table 5.8: ANOVA table for the Developmentally Inappropriate Practices (DIP) and School Characteristics

Source	df	Mean Square	F	Sig.
Corrected Model	4	832.670	20.401	.000
Intercept	1	172486.881	4225.998	.000
SES of the School	3	482.230	11.815	.000
Grade level	1	1663.449	40.755	.000
Error	121	40.816		
Total	126			

R Squared = .403 (Adjusted R Squared = .383)

Socio-economic status bears a negative association with DIP such that the teachers in low SES show the most frequent inappropriate practices ($M=47.38$), while teachers in high SES show the least frequent inappropriate practices ($M=36.53$). As to grade level, preschool teachers have less frequent inappropriate practices than KG2 teachers.

Discussion

The data indicated that the most significant variables in school characteristics were the socioeconomic status (SES) of the school and its size. As for classroom variables that were part of the school characteristics, the most significant were grade level and class size. Schools do have a powerful socializing influence on teachers' beliefs and practices.

Size of the School

School size greatly explained developmentally appropriate practices. Teachers in large schools had more appropriate practices than those in small schools. One reason may be due to the provisions of more space and building facilities. Small

schools have fewer classes, less teachers, and in some cases that I observed more students. An interview with one teacher in a small school showed how difficult it was for the teacher to use appropriate practices. The teacher indicated that she would have loved to have a bigger class in order to include two important areas that she strongly believes are important. These areas were the dramatic play area and the reading corner. She also wished that there were more kindergarten teachers so that she could have exchanged ideas with them.

SES of the School

Schools with a high SES background exhibited the most appropriate practices. Teachers in low SES schools exhibited the most inappropriate beliefs and practices. In low SES schools, teachers' preconceived views about children's background may lead to the adoption of a didactic, basic-skill orientation (Stipek & Byler, 1997).

Grade Level

The grade level teachers teach in also influences their beliefs and practices. Teachers of kindergarten have more inappropriate beliefs and practices than preschool teachers. Preschool teachers in high SES schools had the least inappropriate beliefs and practices. This could be because many teachers see kindergarten as preparation for elementary grades. As a result of these inappropriate practices, children are more likely to be spending more time in whole-group instruction, using ditto sheets and less hands-on activities (Bryant et al., 1991). This finding is also consistent with previous studies where as the grade level increased, the frequency of self-reported developmentally appropriate beliefs and practices decreased (Buchanan et al., 1998; Vartulli, 1999). Kindergarten teachers tend to focus more on basic skills and knowledge as their goals whereas preschool teachers consider independence and positive self- concept as more important goals. Furthermore, school administrators

and principals tend to exert pressure on kindergarten teachers more than they do on preschool teachers (Stipek & Byler, 1997).

Kindergarten is a special time for children. It is the time when children should develop positive attitudes toward school and learn about social responsibility and engage in activities that promote problem-solving and critical thinking skills (Edson, 1994). Unfortunately, providing more direct instruction and emphasizing basic skills according to many kindergarten teachers would ensure that those children achieve success and are ready for formal schooling (Spodek, 1988). Therefore, kindergarten curriculum goals changed from being play-centred to one that is academic. This is bound to result in developing negative attitudes towards school and causes children undue stress (Burts et al. 1990; 1992; 1993) or as Elkind (1987) described it "miseducation". This means putting the child at risk for no purpose. The short-term risk involves stress, distractibility, and attention deficit. The long-term risks involve lack of motivation, achievement and social outcome. Consequently, children will lack self-direction, be more dependent on adult's approval and direction. Socially, children learn early on that one is smarter than others through social comparisons and emphasis on grades.

Class Size

Teachers who taught small classes reported more appropriate practices. This finding is in line with the recommendation that class size be kept small (Bredekamp and Copple, 1997). Frede (1995) reported that small class size leads to the use of more appropriate practices.

Research Question 6: *What is the nature of the relationship between teachers' self-reported beliefs and self-reported practices on the one hand, and teacher characteristics and school characteristics on the other?*

To answer this question, all the independent variables from the two sets (teacher characteristics and school characteristics) that were significantly associated with any of the dependent variables were entered into a new full model. Because of the strength of the correlation between some of these independent variables, the new full models did not retain all the variables that appeared in the earlier models as two criteria were applied to keep any independent variable in a model: statistical significance at the 0.05 level and contribution to the coefficient of determination (R^2). The goal was to end up with a succinct model that is significant at the 0.001 level with all independent variables significantly related to the dependent variable.

DAB's Full Model

The DAB's full model is its model with teacher characteristics that was presented earlier.

DAP's Full Model

The DAP model in table 5.9 is significant at the 0.001 level, and the independent variables combined explain 38 % of the variation in DAP. Salary, class size, grade level, socio-economic status of school, influence of parents, availability of resources, and two specific courses taken in college- teaching reading and child development- significantly influence the frequency of appropriate practices.

Appropriate practices increased in frequency with salary: the higher the income the higher the DAP score. Class size influenced the appropriate practices whereby it is the highest among teachers in the smallest class size schools ($M=63.88$) followed by those in the largest class size schools ($M=60.67$). School's socio-

economic status bears a negative relationship with DAP, with the DAP score highest in the low SES schools ($M=66.81$).

Teachers who felt a great influence from parents scored significantly higher on DAP than those who felt little influence, and the teachers who were satisfied with the availability of instructional resources tended to use more appropriate practices than those who were dissatisfied. Furthermore, taking a course in child development generated a higher score on DAP, while taking a course in teaching reading decreased the frequency of appropriate practices.

Table 5.9: ANOVA table for the Developmentally Appropriate Practices (DAP), Teacher and School Characteristics

Source	df	Mean Square	F	Sig.
Corrected Model	13	261.71	4.98	.000
Intercept	1	100503.26	1911.38	.000
Salary	3	144.65	2.75	.046
Class Size	3	243.04	4.62	.004
SES of the School	3	349.11	6.64	.000
Parents' influence	1	333.52	6.34	.013
Availability of Resources	1	387.69	7.37	.008
Course-Child development	1	201.85	3.84	.053
Course-Teaching Reading	1	475.76	9.05	.003
Error	107	52.58		
Total	121			
Corrected Total	120			

R Squared = .377 (Adjusted R Squared = .301)

DIB's Full Model

The DIB's full model in table 5.10 is significant at the 0.001 level, with a coefficient of determination of 0.51. The independent variables in the model are: salary, grade level, school's socio-economic status, and influence of the principal.

Salary is negatively related to DIB. The most frequent inappropriate beliefs were found among teachers who receive the lowest salary; whereas the highest paid

teachers had the least frequent inappropriate beliefs. As to grade level, preschool teachers had less frequent inappropriate beliefs than KG2 teachers.

Socio-economic status bears a negative association with DIB such that the teachers in low SES showed the most frequent inappropriate beliefs ($M=47.56$), while teachers in high SES showed the least frequent inappropriate beliefs ($M=34.52$). Furthermore, principals who exerted a great deal of influence on teachers generated a higher frequency of inappropriate beliefs than the principals who had little influence on teachers.

Table 5.10: ANOVA table for the Developmentally Inappropriate Beliefs (DIB), Teacher and School Characteristics

Source	df	Mean Square	F	Sig.
Corrected Model	8	454.69	13.95	.000
Intercept	1	118780.66	3644.24	.000
Salary	3	104.42	3.20	.026
Grade Level	1	158.42	4.86	.030
School SES	3	419.68	12.88	.000
School Principal Influence	1	202.80	6.22	.014
Error	109	32.59		
Total	118			
Corrected Total	117			

R Squared = .506 (Adjusted R Squared = .470)

DIP's Full Model

The DIP's full model in table 5.11 is significant at the 0.001 level, and the independent variables combined explain 46 % of the variation in DIP. Salary, grade level, and school's socio-economic status are significant predictors of DIP.

Salary is negatively related to DIP such that the lowest-paid teachers scored the most frequent inappropriate practices. As to grade level, preschool teachers had less frequent inappropriate practices than KG2 teachers. Socio-economic status bears

a negative association with DIP such that the teachers in low SES schools showed the most frequent inappropriate practices.

Table 5.11: ANOVA table for the Developmentally Inappropriate Practices (DIP), Teacher and School Characteristics

Source	df	Mean Square	F	Sig.
Corrected Model	7	531.869	13.922	.000
Intercept	1	144254.09	3776.04	.000
Salary	3	118.80	3.11	.029
Grade level	1	1633.99	42.77	.000
School SES	3	275.45	7.21	.000
Error	114	38.20		
Total	122			
Corrected Total	121			

R Squared = .461 (Adjusted R Squared = .428)

Discussion

All but the DAB full models that included both teacher and school characteristics have explained a substantial percentage of the variance in teachers' developmentally appropriate and inappropriate beliefs and practices. Some of these characteristics that were significantly related to beliefs and/or practices were dropped from the final full models because they did not meet the criteria for inclusion in the models. These variables were moderately to strongly correlated with other independent variables, which rendered their F values in the ANOVA tables insignificant at the 0.05 level. Nevertheless, they are substantively important as determinants of beliefs and practices and will thus be included in the concluding remarks.

The use of developmentally appropriate practices is determined to a large extent by a number of teacher and school characteristics. An interesting finding concerns class size. In the presence of teacher characteristics, appropriate practices were highest in small classes and very large classes. The data showed that large classes are present only in low SES schools. Large class sizes can function well depending on

how teachers make use of peer group work (Stevenson and Stigler, 1992; Tobin et al., 1987).

Classroom observations in these schools with large class sizes showed that teachers relied a lot on making children accountable for their own learning and relying on their peers. A recurrent phrase by some teachers in these classrooms was “Ask three before me”. This supports Jin and Cortazzi (1998) finding that large class size is affected by cultural values that stress cooperation and group responsibility.

Teachers in the low SES as table 5.1 showed are a heterogeneous group representing the extremes of educational backgrounds, teaching experience and ages. Spodek (1988a) points out how teachers at the same age level with similar background training and even teaching in the same school may have different implicit theories. Some of those low SES schools are religious schools in which teachers' own religious and cultural beliefs influence their interaction and the type of learning experiences they provide for children. According to Holloway (1999), religious beliefs play a role in providing either creative or didactic learning activities.

Teachers in low SES schools reported different problems in their teaching young children. One teacher gave an example of how the child's family life impacted her teaching.

T 97- My major challenge was in getting one student to talk and sit still for more than 6 minutes. This child's father has two wives and his home environment is really awful. I remember once when we were doing a unit on family and I asked each child how many brothers and sisters they had. That child said two even though I know that he has six siblings in school. Upon probing deeper, I discovered that the four were from the other wife and the child who is 5 years old does not want to admit that they exist. Every time the

father comes home, the very next day that child is a mess for a whole week. I worked a lot on making him trust me and I think I was successful.

Satisfaction with resources is a support for teachers implementing appropriate practices as well as parents influence. Jones et al. (2000) stated that external influences can support or hinder teachers' use of developmentally appropriate practices. In this model, these were sources of support and thus allowed teachers to use appropriate practices.

Course work was important for teachers using appropriate practices. Teachers who took a child development course used more appropriate practices.

However, teachers who did not take a course in teaching reading were found to use more developmentally appropriate practices. It could be that the content of the course was not related to early childhood. In observing a teacher with elementary education, this finding became clearer.

Class L-middle KG II, teacher with a major other than early childhood

The task was a worksheet on the letter 'r'. Children were supposed to write words that begin with the letter 'r' under each picture. One child wrote *stone* instead of the word *rock*. Another student asked the teacher how the word *street* is spelled. The worksheet did not have that word but it had the picture of a long *road*. For that child, the picture was that of a street.

The example above is representative of how several kindergarten teachers in Lebanon teach letters of the alphabet. Ray Reutzel (1992) believed that in-depth teaching of a letter-a-week is not necessary. Once children begin to understand the alphabetic principle by learning a few letters, they begin to generalize to others without further training. Teaching the alphabets should be an enjoyable experience where children

learn and practice their understanding of the alphabetic principle in authentic reading and writing events and not through worksheets.

In relation to grade level, it was a significant determinant of teachers' inappropriate beliefs and practices. Most inappropriate practices took place in kindergarten. For many teachers, free play is almost non-existent in their classroom and is often replaced by play with a purpose. Teachers feel that there are academic domains of reading and mathematics that children need to master if they are to succeed in later grades. The beliefs about what and how children learn and the type of instruction they need influences the decisions teachers make as they plan and implement instruction. In some classrooms, academic component is pushed down to preschool.

The following vignette represents what was observed in terms of teacher's understanding of children's development and literacy activities in a preschool classroom:

Class A- KGI- High SES, teacher with major other than early childhood

Using calendar time, the teacher asked students to note similarities between their calendar and the other one on the board. She kept on asking as children provided incorrect responses until finally she said: "the word May (referring to the month). At this point one boy protested saying they are not the same. To that child MAY and May were different. He was looking at the shape while the teacher was looking at the word itself.

The profile of Lebanese teachers who use inappropriate beliefs and practices included the grade level teachers are in, their monthly salary, and the SES of the school as well as the influence of the school principal on their beliefs. Again, teachers

who receive the lowest salary, and teach kindergarten tend to have more inappropriate beliefs and practices.

The findings in this study underscore the importance of higher education and teaching preparation in early childhood education. Indeed, the DAP teachers reported is related to their level of education and major. These findings are consistent with previous research on the relationship of teachers' level of education and use of DAP (Kontos & Wilcox-Herzog, 2001; McMullen & Alat, 2002). Epstein (1993)'s study supports the value of college degrees in early childhood education as well as having highly organized in-service training as a substitute for specialized pre-service training.

Furthermore, the findings highlighted the continuing trend in emphasizing early academics in the early childhood classroom. Similar studies (Dunn & Kontos, 1997) reported that only about one-fifth to one-third of the early childhood classrooms fully demonstrate DAP. Although some basic skills may require drill-and-rote practices, these should not dominate kindergarten life. According to Edson (1994, p.73)

“Extending a child’s knowledge doesn’t just mean working on more and more workbook pages. Sheer knowledge is just one part of the growth that kindergarten teachers develop. The experience in kindergarten is designed to develop all of the aspects of the child who walks in my classroom-the child as a literate being, a computer, a recorder, a decoder, a social being, a creator, and a friend.”

Summary

The chapter examined the nature of the relationship between teachers' self-reported beliefs and self-reported practices on the one hand, and teacher characteristics then school characteristics on the other. Subsequently, the nature of the relationship between both sets of independent variables on the one hand, and

beliefs and practices on the other were examined. Statistical analysis using analysis of variance showed that the determinants of developmentally appropriate beliefs are: parents influence and availability of resources for instruction; and the determinants of developmentally appropriate practices are: class size, the SES of the school, external influences such as parents influence and availability of resources. In addition, teachers specialized courses: teaching reading and child development were other determinants of developmentally appropriate practices. For both developmentally inappropriate beliefs and practices there were the following predictors: SES of the school, grade level and salary. There was an additional factor for developmentally inappropriate practices and that had to do with the school principal influence.

These findings were discussed and related to relevant literature, theoretical perspectives, and triangulated with classroom observations and teachers' interviews.

Chapter Six

Summary and Conclusion

This study explored the beliefs and practices of early childhood teachers in Lebanon. It investigated the relationship between the self-reported beliefs and self-reported practices as well as determined the variables that influence the degree to which teachers embrace the field's currently held 'best practices'. Perhaps there is no other profession that has had and still does that much dispute as education has. In the field of early childhood education, the never-ending debate of what is 'the best practices' for children to experience still lingers.

Early childhood education in Lebanon has had its roots in European and American early childhood education. Mainly Christian missionaries disseminated the philosophies and theories of early childhood education. The aim of which was to modernize the Lebanese society. These programmes affected the learning experiences as well as values that children were provided with. Thus, examining the role that teachers play can provide significant understanding as to how teachers teach and what beliefs influence their practices.

The study asked six research questions that have a bearing on the beliefs and practices of early childhood teachers in Lebanon. Twenty-one schools that are representative of the diversity that characterizes the educational system in Lebanon were included in the sample. From these schools, 135 preschool and kindergarten teachers participated. Each teacher was administered a questionnaire and eighteen teacher were observed in their classrooms. In-depth interviews were conducted on six teachers.

Mixed methodology was used in this study for several purposes. The use of quantitative and qualitative methodology allowed the researcher the opportunity to examine and compare beliefs and practices through the use of numerical and narrative data. Thus, areas of agreement and disagreement were identified and analyzed.

In using this multi-method approach, the researcher was able to obtain a better, more substantive picture of the current beliefs and practices of early childhood teachers. Triangulation had hopefully improved the quality of the inferences made from the findings. Each method utilized revealed several broader aspects of the problem under study, reducing discrepancies and incongruities between the quantitative and qualitative data.

Based on the responses of the participants, factor analysis was used to identify the beliefs and practices factors of the teachers. The results of the study indicated that teachers have beliefs and practices that are not always consistent. Factor analysis of the participants' responses on the instrument showed that there is a strong relationship between teachers' inappropriate beliefs and practices, and a moderate relationship between teachers' appropriate beliefs and practices. Teachers tend to have more appropriate beliefs than they practice it. A good deal of the inappropriate beliefs and practices had to do with literacy activities and discipline strategies. Much of the information from interviewing and observing participants showed that teachers used these because they want to give children a better start on schooling.

The results also determined the nature of the relationship between teachers' self-reported beliefs and self-reported practices on the one hand, and teacher characteristics then school characteristics on the other. The teacher characteristics that were predictors for appropriate beliefs and practices were the degree of support teachers received from parents, the resources made available for them, whether or not

they have a university degree, particularly if they have an early childhood or an elementary degree as well as the type of courses they had taken. The school characteristics that were determinants of beliefs and practices of teachers had to do with the SES of the school, class size, and the grade level. Significant findings in this study were the influence that salary has on the beliefs and practices of teachers. Another surprising finding was that teachers in large classes used appropriate practices.

Therefore, young children are more likely to have an effective education when taught by teachers who have had specialized college preparation to work in early childhood education settings. The lack of adequate compensation would likely lead to high teacher turnover making it impossible to recruit and retain well qualified, well – educated teachers.

The instrument itself, though developed in a Western country appears to have been effective in instigating responses from teachers. An unexpected finding had to do with how teachers reacted to the questionnaire itself. These comments served as themes about their world of teaching. It appeared that the questionnaire itself prompted some teachers to directly reflect on their own beliefs and practices.

In their written comments on the questionnaire some teachers noted that it was a “psychological test”, others referred to it as a “checklist” while few saw it as a fun activity. However, for several others the comments provided in-depth views and richer stories. As one other teacher noted: *T 3- I like to thank you for this questionnaire because it gave me an opportunity to check myself if I was teaching correctly/up to date with my children.*

(For further details, see *Excerpts from Teachers' Comments on the Questionnaire* in the Appendix).

One teacher added in her own words the item “children themselves”, in the section that asked about who has the greatest influence on your teaching. That item was unanticipated by the researcher.

Conclusion

Even though DAP may not have met with universal acceptance, there is a need to think of the cultural values and society's expectations as they can provide sources for decisions about appropriate educational experiences for young children. The research literature has highlighted the value of DAP to enhance learning. Though the findings on academic outcomes remain contradictory, the social and motivational outcomes provide a solid assertion.

Dewey (1938) pointed out that education has always been plagued with an either/or mentality. He urged educators to move beyond the dualities of progressive/traditional and to outline a philosophy of experiences and its relation to education.

This study has served to initiate the process of gathering information about early childhood teachers' beliefs and practices in Lebanon. The results of this study can serve as a starting point for further quantitative and qualitative research that attempts to identify and compare teachers' beliefs to their actual instructional practices. The findings raise important questions as to what teachers say they believe and what they are actually observed implementing in the classroom. Equally important is the policy implications of this study which is presented in the form of recommendations to policy makers in schools, Ministry of Education, and teacher training programmes.

Recommendations

Schools

It is recommended that school principals:

- Ensure that those who teach young children have an early childhood education degree.
- Acknowledge that kindergarten is a special time for children to grow and ensure smooth transition to primary grades.
- Offer better salaries in order to recruit highly educated teachers.
- Provide teachers with continuous training on how children develop and equip them with the best ways of observing children. Teachers are too busy teaching and not enough learning. In order to learn from children, teachers need to slow down and watch and listen to them carefully.
- Provide teachers with opportunities for self-examination and self-improvement, through release time, workshops, observing other teachers and classrooms, engaging in peer coaching and mentoring.
- Provide teachers with training and awareness about the use of DAP.
- Encourage parents' involvement in their children's school life. When teachers and parents share the same beliefs and values about what is best for children, everyone benefits.
- Establish an electronic inter-school network in all of Lebanon in which all early childhood teachers can exchange lesson plans, ideas, and activities. Teachers in schools from all socioeconomic backgrounds can share information, discuss similar areas of concern, and develop their teaching skills.

Ministry of Education

It is recommended that policy makers at the Ministry of Education:

- Change the low status image that early childhood teachers hold and form something like a Lebanese Early Childhood Teachers Association. Early childhood teachers need to have their own professional identity. They need to see that their role is not just the traditional nurturing role of the mother but that of an educator.
- Introduce a regulation that only allows holders of a university degree in early childhood education to teach young children, given that teachers play an important role in the education of the future generation.
- Think of DAP beyond the preschool and kindergarten and look at how it can be implemented up to grade 3 particularly since the new definition of early childhood encompasses birth to age 8.

Teacher Education Programmes

It is recommended that teacher training programmes:

- Address directly the beliefs of teachers in training. Teachers' beliefs are important in understanding classroom practices. Teacher educators can help student teachers articulate their beliefs, as suggested by Bullough and Gitlin (2001), through using biography writing that helps them make the past explicit, through the use of metaphors as well as action research.
- Consider the existing beliefs of prospective teachers and challenge developmentally inappropriate beliefs by giving pre-service teachers objective data regarding child development and learning in the early years.
- Practice what they preach. More class time should be given to discussions and reflections in order for prospective teachers to examine their own beliefs about teaching and learning. O'Brien (2000) suggested that teacher educators rather than indoctrinating student teachers in early childhood into the DAP, they need

to involve them in critical examination of what he termed “engaged pedagogy”. This forces them to examine who they are as teachers and learners, including their cultural contexts and constructs, thus leading to an expanded world view and, hence, a more respectful, thoughtful, socially conscious practice (O’Brien, 2000, p.284).

- Provide hands-on practice to pre-service teachers so that they can translate child development principles to classroom practice. In the child development course, it is not enough to know what to do with young children; student teachers need to understand why they do what they do.
- Require teacher educators to examine the structure of the courses and requirements for early childhood certification.
- Address teachers’ goals and beliefs by requiring teachers to reflect upon and make explicit their own beliefs about the purposes of early childhood education. It may also be useful to inform teachers of cultural and social class differences in goals and values and engage them in discussions of alternative perspectives that they may not have considered.
- Make trainers aware of their own beliefs and practices and acknowledge that theirs may be different from those of their students or of the parents of the children their students will teach at some point. Stipek and Byler (1997) regarded this recommendation as essential if the student teachers are expected to work in schools that serve economically disadvantaged children.
- Assist prospective teachers in making the link between theory and practice so that teachers can translate theory into practical everyday teaching practices.
- Provide pre-service teachers various opportunities to observe efficient and manageable classrooms utilizing a child-centred approach. This allows student

teachers to resist the perceived effectiveness of the use of worksheets and direct instruction methods.

- Learn from the experiences and articulated expectations of pre-service teachers. This can be done by using autobiographical writing in teacher education courses so that there is exploration of students' own personal reflections and growing self-awareness, allowing pre-service teachers to gather external information through inquiry by conducting participant observation and interviewing classroom teachers and collecting documents. In a way, engage them, as suggested by Coles and Knowles (1993), in ethnographic research.
- Engage student teachers to reflect on their deeply held beliefs so that once they leave and are ready to teach they don't revert to teaching as they learned during their apprenticeship of observation (Rust, 1994).

Suggestions for Future Research

- This research has examined teachers' use of different instructional approaches. However, future research needs to take it further by looking at the impact these instructional approaches have on the development of the whole child. Such research would likely challenge conventional wisdom, sharpen the debate and increase our understanding of the impact of these different approaches (Stipek et al, 1995).
- Researchers need to consider a variety of methods in examining teachers' beliefs and practices. One way to do that is by stressing the power of stories and metaphor, as Connelly and Clandinin (1988, p.71) stated about getting teachers to thinking about their teaching roles which: "..... makes a great deal of difference to our own practice.... if we think of teaching as gardening,

coaching, or cooking. It makes a difference if we think of children as clay to be moulded or as players on a team or travellers on a journey.”

- Research on teachers should involve context because what teachers do in classrooms is influenced by what happens in the wider society and its cultural patterns. Researchers need to examine the social process of teaching. They can analyze the administrative and moral constraints of teaching, and how the teachers' background has helped in dealing with these constraints.
- Researchers themselves need to engage in their own reflection. Although the aim of research is to generate and promote new knowledge, the research also reflects the values, beliefs and perspectives of the researcher. During the research process especially when it comes to early childhood education, the researcher needs to assess his or her own views about children. Thus, reflexivity becomes important. Researchers have a responsibility to examine their own beliefs about childhood so that they can assess how these beliefs impact their research conceptions, design, and decision-making. According to Aubery et al. (2000, p.5), reflexivity means ‘that one is aware of one’s own potential influence on the research process, as a result of one’s standpoint and assumptions. It means taking account of the advantages of the principal enquirer’s common human experience whilst remaining alert to potential sources of bias.’

For example my perspective is shown in the adoption of a theoretical position (DAP), the type of questions asked, and analysis of the findings. As this researcher set out on a journey to examine teachers' beliefs and practices, the outcome was that the researcher ended examining her own beliefs.

Self Reflection

As I reflect back on the experience, I realize that children continue to teach us better ways to teach them.

In my classroom observations, my objective was to focus on the teachers and their actions. However, children made me aware that it is important to hear what they have to say. One specific incident lingers in my mind. In one preschool as I was writing my field notes, one girl approached me and asked me if she could write. I said: "sure". To my surprise, she smiled and said: "You are nice, the teacher does not let us write." She used invented spelling and wrote her name and her father's name. Other children, upon seeing what the girl was doing came by and asked if they could also write. Luckily I had enough pens. I still have that yellow pad with children's signatures on as a keepsake treasure to what children can do if we respect their right to write.

The aim of research is to generate new knowledge. The validity of this statement was reinforced as I observed children working with worksheets. They taught me a lot about its ineffectiveness. Once children finished their circling and colouring task of the worksheet they turned over the paper and started writing their names and drawing and talking. In another class, the worksheet was about animals in a pond, which they were supposed to colour. Children did that but many decided to add details. For example, one child decided to draw an ice cream cone with his favourite flavours and pretended that the turtle is eating it (see Appendix for more examples of children teaching us what counts).

The words of the late Loris Malaguzzi come to mind as he has often called on professionals to accept the challenge, to keep questioning their own practice and to

listen to children. These are excerpts from a letter he wrote to parents which was translated by Lella Gandini in December 1988.

“We have to admit that we adults speak a great deal about children, speak a little with them, and listen to them even less.... He goes on to say that we need to learn the art of listening to children. If we fail, then “We adults lose the capacity to marvel, to be surprised, to reflect, to be merry, and to take pleasure in children’s words and actions... I invite you to listen to what we often do not have time or patience to listen to, namely, the kind of extraordinary laboratory of experiments that is the child near us (Malaguzzi & Gandini, 1994, p.55)”.

Perhaps no one has been able to show how important it is for educators to respect children in their own right as this poem written by Malaguzzi. It is translated by Lella Gandini (1998, p.3) and titled “No Way - The Hundred Is There.”

No Way - The Hundred Is There

The child is made of one hundred.
The child has a hundred languages
a hundred hands
a hundred thoughts
a hundred ways of thinking
of playing, of speaking.
A hundred, always a hundred
ways of listening
of marvelling, of loving,
a hundred joys
for singing and understanding
a hundred worlds
to discover
a hundred worlds
to invent
a hundred worlds
to dream.

The child has a hundred languages (and a hundred hundred hundred more)
but they steal ninety-nine.

The school and the culture separate the head from the body.

They tell the child
to think without hands
to do without head
to listen and not to speak
to understand without joy
to love and to marvel
only at Easter and Christmas.

They tell the child
to discover the world already there
and of the hundred
they steal ninety-nine.

They tell the child
that work and play
reality and fantasy
science and imagination
sky and earth
reason and dream
are things

that do not belong together.

And thus they tell the child that the hundred is not there.

The child says
"No way - The hundred is there"

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Appendix A

Sample letter

Dear _____

As part of my doctorate research at the University of Leicester, England, I am conducting a research study in which I explore the beliefs and practices of early childhood teachers in Lebanon.

Over the past several years, research on teaching and teachers has recognized that teachers are reflective agents who have beliefs, experiences, knowledge, and goals that affect their decision making in the classroom. This study has the potential of providing significant and profound insight into many aspects of the teacher's professional world. Furthermore, such a study is essential to improving teachers' professional preparation and teaching practices.

Given the educational history and mission of International College, I would like to include your school in my sample. Note that the identity of the school and the participants will remain anonymous. I shall be glad to share my findings with you if you wish. My research will entail the following:

Methods that will be used	Time required
• Classroom observation	up to two-hours each visit per class
• Questionnaires distributed to all English preschool and kindergarten teachers in your school.	20 minutes
• Interviews with some of the preschool and kindergarten teachers	15- 25 minutes per teacher

If this meets with your school approval, I would like to meet with you at your convenience.

My phone number is 03-412871

Sincerely,

Basma Faour
Instructor- Lebanese American University

Appendix B

Questionnaire on Early Childhood Teachers' Beliefs and Practices in Lebanon

Dear Teacher,

My name is Basma Faour. As part of my doctoral research at the University of Leicester, England, I am conducting this research to explore your beliefs and practices about teaching young children.

It is hoped that your full contribution to this study would provide insight into early childhood teacher education programs and in-service training. I shall be glad to share my findings with you.

Your input is, therefore, important and valuable.

Please indicate your agreement to participate in this research by first reading and checking the sections below.

- ☐ I understand that my participation in this study is voluntary.
- ☐ I understand that my identity will remain anonymous.
- ☐ I understand that providing my name is purely for statistical purposes.

Teacher's name: _____

Teacher's signature: _____

Date: _____

- ☐ I would be willing to participate in an interview on this topic.

My telephone number is: _____

My e-mail address is: _____

Thank you for your input

Basma Faour
Lebanese American University

My phone number is: 03-412871

Instructions: Read each statement and answer to the best of your knowledge.

I- YOUR BACKGROUND

To begin with, please provide the following information about your school and yourself.

Personal Information

1. Sex: ☐ male ☐ female

2. Marital Status: ☐ Single ☐ Married ☐ Divorced ☐ Widowed

3. Age: _____

4- Monthly Salary:

- ☐ under 500,000 L.L.
☐ 500,000- 649,000 L.L.
☐ 650,000- 799,000 L.L.
☐ 800,000- 949,000 L.L.
☐ 950,000- 1,099,000 L.L.
☐ above 1,100,000 L.L.

5- School's Name: _____

Type of School: ☐ private ☐ public ☐ free/semi private

6- Counting this school year, how many years have you been a school teacher? **Write number on the line.**

_____ Years

7- Counting this school year, how many years have you taught in your **current school**? **Write the number of years to the nearest half year** (for example, 2.5, 3.5).

_____ Years

8- Counting this school year, how many years have you taught each of the following grades? **Write the number of years. Write "0" if you have never taught the grade listed.**

Total Years Grade Taught

- _____Preschool (KG1 or Nursery)
 _____Kindergarten
 _____First grade
 _____Second through fifth grade
 _____Sixth grade or higher

9- Grade level you are currently teaching_____

10- Are you a classroom teacher who teaches all subjects?

☐ Yes ☐ No

If **not** all subjects, please specify: _____

11- The number of students in the class(es) you teach is: _____

number of boys _____

number of girls _____

12- What is the **highest level** of education you have completed? **Circle only one.**

- ☐ Brevet
- ☐ Less than a High school diploma
- ☐ Bacc II or a High school diploma
- ☐ Two years degree after Bacc II
- ☐ BT or TS (technical degree)
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Doctorate
- ☐ Other (Please Specify) _____

13- If you have a university degree, what was your undergraduate major in:

14- Do you have a Teaching Diploma (a teaching diploma is above the BA level)?

- ☐ Yes ☐ No

15- Tick the college courses you have taken?

- _____ Child Development
- _____ Introduction to Early Childhood Education
- _____ Learning Theories
- _____ Classroom Management
- _____ School Counselling
- _____ Methods and Materials in Early Childhood Education
- _____ Nutrition, Health and Safety
- _____ Creative Dramatics
- _____ Teaching Reading in the Elementary School
- _____ Practicum in Early Childhood
- _____ Exceptional Children
- _____ Others, specify _____

16- To what extent, do you feel that the university courses have helped you in your teaching?

___ very little ___ somewhat ___ a lot

II- The second part of the questionnaire asks about your views about early childhood education and your beliefs. Kindly read each item and answer to the best of you knowledge.

17- Teachers Views about Early Childhood Education

Note that Preschool means nursery and kindergarten I while kindergarten means KG II.

Rate the relative importance of these seven goals of early childhood education program. Circle one number for each item.

1= Least Important

2= Somewhat Not Important

3= Important

4= Somewhat Important

5= Most Important

	Least Important	Somewhat Least Important	Important	Somewhat Important	Most Important
a. Self -Esteem	1	2	3	4	5
b. Independence	1	2	3	4	5
c. Creativity	1	2	3	4	5
d. Basic Skills	1	2	3	4	5
e. Cooperation	1	2	3	4	5
f. Social Skills	1	2	3	4	5
g. Knowledge and Facts	1	2	3	4	5

18- Teacher's Views on School Climate

Please indicate the extent to which you agree with each of the following statements about your school's climate. **Circle one number for each item.**

1 = Strongly disagree

2 =Disagree

3= Agree

4 =Strongly agree

Item	SD	D	A	SA
1. Staff members in this school generally have school spirit	1	2	3	4
2. The level of child misbehaviour (for example, noise, horseplay, or fighting in the halls or cafeteria) in this school interferes with my teaching.	1	2	3	4
3. Many of the children I teach are not capable of learning the material I am supposed to teach them	1	2	3	4
4. I feel accepted and respected as a colleague by most staff members	1	2	3	4
5. Teachers in this school are continually learning and seeking new ideas	1	2	3	4
6. Routine administrative duties and paperwork interfere with my job of teaching	1	2	3	4
7. Parents are supportive of school staff	1	2	3	4

19- Kindly indicate how important the following statements are. Circle one number for each item.

- 1 = Not important at all
 2 = Not very important
 3 = Fairly important
 4 = Very important
 5 = Extremely important

It is _____	Not important at all	Not very important	Fairly important	Very important	Extremely important
1. for tests to be used to evaluate children	1	2	3	4	5
2. to use worksheets and workbooks in evaluating children	1	2	3	4	5
3. for activities to be responsive to children's individual differences in interest	1	2	3	4	5
4. for activities to be responsive to individual differences in children's development	1	2	3	4	5
5. for each curriculum area to be taught as separate subjects at separate times	1	2	3	4	5
6. for children to select their own activities	1	2	3	4	5
7. for children to receive instruction in letter and word recognition	1	2	3	4	5
8. to provide a variety of concrete learning materials in centres (writing centre, science centre, math centre, etc.)	1	2	3	4	5
9. for children to create their own learning activities (e.g. cut their own shapes, plan their own art, or writing experiences)	1	2	3	4	5
10. for children to learn by actively exploring relevant and interesting materials	1	2	3	4	5
11. for children to learn by interacting and working cooperatively with other children	1	2	3	4	5
12. for children to work on worksheets and ditto sheets individually and silently	1	2	3	4	5
13. for teachers to use flashcards to teach reading	1	2	3	4	5
14. for children to read from basal books daily in teacher-directed groups	1	2	3	4	5
15. for teachers to move among groups and individuals, offering suggestions, asking questions, facilitating children's involvement with materials and activities	1	2	3	4	5
16. for teachers to use stickers, treats, and/or stars to encourage appropriate behaviour	1	2	3	4	5
17. for children to know their letters and letter-sounds before they learn to read	1	2	3	4	5
18. for children to establish rules for their classroom	1	2	3	4	5
19. for children to colour within the lines	1	2	3	4	5
20. for children to write letters on the line	1	2	3	4	5
21. for teachers to prepare children for change before a change of activities	1	2	3	4	5

It is _____	Not important at all	Not very important	Fairly important	Very important	Extremely important
22.for children to write, or scribble	1	2	3	4	5
23.for children to have stories read to them daily, individually and/or in groups	1	2	3	4	5
24.for children to be good readers	1	2	3	4	5
25.for children to dictate their own stories to the teacher	1	2	3	4	5
26.for children to participate in art, music, dance, drama (ex. Dramatizing favourite stories)	1	2	3	4	5
27.for children to talk informally with adults in class	1	2	3	4	5
28.for children to experiment with writing by inventing their own spelling	1	2	3	4	5
29.to provide many daily opportunities for developing social skills with peers in the classroom	1	2	3	4	5
30.for children to observe teacher demonstrated experiments to learn science concepts	1	2	3	4	5
31.to teach health and safety with a variety of projects throughout the school year	1	2	3	4	5
32.for children to experience multicultural and non-sexist activities and materials	1	2	3	4	5
33.that outdoor activities are planned daily	1	2	3	4	5
34.for children to work in small groups on projects that they plan and conduct themselves	1	2	3	4	5
35.for strategies like setting limits, problem solving, redirection to be used to help guide children's behaviour	1	2	3	4	5
36.to use parent input in curriculum	1	2	3	4	5
37.that children do activities that integrate multiple subject areas (reading, math, science, social studies, etc.)	1	2	3	4	5

20- Instructional Activities and Curricular Focus

How often do children in this class do each of the following activities?

Circle one number on each line.**1 =Almost Never****2= Two or Three times a month/Rarely****3= Once or twice a week /Sometimes****4 =Three or four times a week/ Regularly****5= Very Often/ Daily**

Item	Almost never	Rarely	Sometimes	Regularly	Daily
1. build constructions with purchased and /or recycled materials	1	2	3	4	5
2. select centre (reading, math, science, writing, etc.)	1	2	3	4	5
3. participate in dramatic play activities	1	2	3	4	5
4. listen to recordings of stories	1	2	3	4	5
5. do creative writing (combining symbols/invented spelling and drawing, and conventional spelling)	1	2	3	4	5
6. play with games and puzzles	1	2	3	4	5
7. explore life science materials such as animals and plants, and/or physical science materials such as wheels and gears	1	2	3	4	5
8. sing and/or listen to music	1	2	3	4	5
9. move creatively as a planned activity	1	2	3	4	5
10. colour and cut freely- self –drawn shapes	1	2	3	4	5
11. use manipulatives (like pegboards, puzzles, Legos, tangrams, etc.)	1	2	3	4	5
12. do phonics activities	1	2	3	4	5
13. read in ability level groups	1	2	3	4	5
14. circle, underline, and/or mark items on worksheets	1	2	3	4	5
15. use flash cards with sight words and/or math facts	1	2	3	4	5
16. participate in rote-counting	1	2	3	4	5
17. practice handwriting on lines	1	2	3	4	5
18. participate in hands-on projects	1	2	3	4	5
19. colour and/or cut pre-drawn shapes	1	2	3	4	5
20. copy from chalkboard	1	2	3	4	5
21. participate in whole-class teacher-directed instruction	1	2	3	4	5
22. coordinate their own activities in centres	1	2	3	4	5
23. receive tangible rewards for good behaviour /performance	1	2	3	4	5
24. lose special privileges (trips, recess, free time) for misbehaviour	1	2	3	4	5
25. take tests	1	2	3	4	5
26. get placed in time-out chair	1	2	3	4	5
27. participate in specifically planned outdoor activities	1	2	3	4	5
28. participate in multicultural and non-sexist activities	1	2	3	4	5
29. play competitive math activities to learn math facts	1	2	3	4	5
30. do health and safety activities	1	2	3	4	5
31. draw, paint, work with clay, and use other art media	1	2	3	4	5
32. solve math problems that are incorporated into other subject areas	1	2	3	4	5

21- Who do you think has the greatest influence on your teaching? Circle only one number.

- 1= No Influence
 2= Slight influence
 3= Some influence
 4= Moderate influence
 5= A great deal of influence

	No Influence	Slight influence	Some influence	Moderate influence	A great deal of influence
a. Government	1	2	3	4	5
b. School Principal	1	2	3	4	5
c. Coordinator	1	2	3	4	5
d. Parents	1	2	3	4	5
e. Teacher	1	2	3	4	5

22- Rate your level of satisfaction with the following aspects or features of your school. Circle one number for each item.

- 1= Very Dissatisfied
 2= Dissatisfied
 3= Satisfied
 4= Very Satisfied

Item	VD	D	S	VS
1. Salary level	1	2	3	4
2. Fringe benefits	1	2	3	4
3. Relations with parents	1	2	3	4
4. Resources available for instruction (books, journals)	1	2	3	4
5. The school's buildings and facilities	1	2	3	4
6. Availability of computers and other technology (Overhead, TV, Video)	1	2	3	4

23 - Please indicate the extent to which you agree with each of the following statements on teaching. Circle one number for each item.

- 1 = Strongly disagree
 2 =Disagree
 3= Agree
 4 =Strongly Agree

Item	SD	D	A	SA
a. I really enjoy my present teaching job	1	2	3	4
b. I am certain I am making a difference in the lives of the children I teach	1	2	3	4
c. If I could start over, I would choose teaching again as my career	1	2	3	4

Your Comments:

DATE QUESTIONNAIRE COMPLETED: ____/____/____

Thank you for your help

Appendix C - Classroom Inventory Checklist

Rating Scale:

1= not at all like this classroom 2= very little like this classroom 3= somewhat like this classroom

4= much like this classroom 5= very much like this classroom

Items					
1. Children select their own activities from a variety of learning areas the teacher prepares.	1	2	3	4	5
2. Large group, teacher directed instruction is used most of the time. Children are doing the same things at the same time.	1	2	3	4	5
3. Children are involved in concrete, three dimensional learning activities, with materials closely related to children's daily life experiences.	1	2	3	4	5
4. The teacher tells the children exactly what they will do and when. The teacher expects the children to follow her plans.	1	2	3	4	5
5. Children are physically active in the classroom, choosing from activities the teacher has set up and spontaneously initiating many of their own activities.	1	2	3	4	5
6. Children work individually or in small, child chosen groups most of the time. Different children are doing different things.	1	2	3	4	5
7. Children use workbooks, ditto sheets, flashcards, and other abstract or two-dimensional learning materials	1	2	3	4	5
8. Teacher asks questions that encourage children to give more than one right answer	1	2	3	4	5
9. Teacher expects children to sit down, watch, be quiet, and listen, or do paper and pencil tasks for major periods of time.	1	2	3	4	5
10. Reading and writing instruction emphasizes direct teaching of letter recognition, reciting the alphabet, colouring within the lines, and being instructed in the correct formation of letters.	1	2	3	4	5
11. Teachers use activities such as block building, measuring ingredients for cooking, and drawing to help children learn concepts in math, science, and social studies.	1	2	3	4	5
12. Children have planned lessons in writing with pencils, colouring predrawn forms, tracing, or correct use of scissors.	1	2	3	4	5
13. Children use a variety of art media, including easel and finger painting, and clay, in ways of their choosing.	1	2	3	4	5
14. Teachers expect children to respond correctly with one right answer. Memorization and drill are emphasized.	1	2	3	4	5
15. When teachers try to get children involved in activities, they do so by stimulating children's natural curiosity and interest.	1	2	3	4	5
16. The classroom environment encourages children to listen to and read stories, dictate stories, notice print in use in the classroom, engage in dramatic play, experiments with writing by drawing, copying, and inventing their own spelling.	1	2	3	4	5
17. Art projects involve copying an adult-made model, colouring pre-drawn forms, or following other adult directions.	1	2	3	4	5
18. Separate times or periods are set aside to learn material in specific content areas such as math, science, or social studies.	1	2	3	4	5
19. Children have daily opportunities to use puzzles, legos, markers, scissors or other similar materials in ways the children choose.	1	2	3	4	5
20. When teachers try to get children involved in activities, she does so by requiring their participation, giving rewards, disapproving of failure to participate.	1	2	3	4	5
21. Teacher shows affection by smiling, touching, holding, and speaking to children at their eye level throughout the day, but especially at arrival and departure times.	1	2	3	4	5
22. The sound of the environment is marked by pleasant conversation, spontaneous laughter, and excitement.	1	2	3	4	5
23. The teacher uses competition, comparison as guidance and discipline techniques.	1	2	3	4	5
24. The teacher talks about feelings. She encourages children to put their emotions (positive and negative) and ideas into words.	1	2	3	4	5
25. The sound of the environment is characterized either by harsh voice or total quiet.	1	2	3	4	5
26. The teacher uses redirection, positive reinforcement, and encouragement as guidance or discipline techniques	1	2	3	4	5

Appendix D- Interview Questions

1. Why did you decide to become a teacher of young children?
2. What do you enjoy most about teaching children?
3. If you had the opportunity to bring about change in school what would it be?
4. Have you changed anything about the way you teach? In what way? What was your major challenge this year? And did you achieve it?

Appendix E

Descriptive means for Table 5.2- DAP and Teacher Characteristics

Variable One	Mean	Std. Error
Parents Influence		
certain	60.89	1.26
great	65.48	1.84
Highest Education Level		
No university degree	63.15	1.46
Early Childhood	67.72	2.77
Elementary Education	58.05	2.46
Other Majors	63.82	1.44
Availability of Resources for Instruction		
dissatisfied	60.54	2.21
satisfied	65.83	1.07
Grand Mean	63.18	1.35

Descriptive Means for Table 5.3- DAB and Teacher Characteristics

Variable One	Mean	Std. Error
Parents Influence		
certain	88.55	1.03
great	91.89	1.55
Availability of Resources for Instruction		
dissatisfied	88.06	1.93
satisfied	92.38	.77
Grand Mean	90.22	1.08

Descriptive Means for Table 5.4- DIB and Teacher Characteristics

Variable	Mean	Std. Error
Course-Child Development		
Did not take the course	45.06	1.32
Took the course	41.28	1.32
Course- Introduction to Early Childhood		
Did not take the course	40.30	1.48
Took the course	46.04	1.42
Course- Practicum in Early Childhood		
Did not take the course	46.79	.94
Took the course	39.56	1.82
Salary		
Under 330 \$	46.33	1.63
330-430 \$	44.16	1.45
431-530 \$	44.12	1.43
Above 530 \$	38.08	1.13
Classroom Teacher		
yes	41.86	1.01
no	44.49	1.23
School Principal Influence		
certain	41.43	1.37
great	44.91	.93
Grand Mean	43.17	.95

Descriptive Means for Table 5.5- DIP and Teacher Characteristics

Variable	Mean	Std. Error
Salary		
Under 330 \$	46.60	2.07
330-430 \$	44.32	1.72
431-530 \$	43.36	1.63
Above 530 \$	38.82	1.23
Age of the Teacher		
19-29	42.85	1.20
30-39	40.61	1.39
40+	46.36	2.03
Course-Practicum in Early Childhood		
Did not take the course	45.24	.86
Took the course	41.31	1.93
Grand Mean	43.27	1.11

Descriptive Means for Table 5.6- DAP and School Characteristics

Variable	Mean	Std. Error
Class Size		
0-19	67.93	1.52
20-25	61.07	1.84
26-30	59.51	1.69
31+	58.23	2.74
School Size		
small-under 500	59.21	2.53
medium- 500-1500	59.78	1.66
large -above 1500	66.06	1.29
SES of the School		
low SES	68.84	1.57
lower middle SES	62.90	1.54
middle SES	59.80	1.63
high SES	55.19	3.17
Grand Mean	61.68	1.12

Descriptive Means for Table 5.7- DIB and School Characteristics

Variable	Mean	Std. Error
SES of the School		
low SES	48.31	.88
lower middle SES	48.48	1.13
middle SES	43.66	.99
high SES	31.82	1.80
Grade Level		
KG2	44.40	.87
preschool	41.74	.79
Grand Mean	43.07	.63

Descriptive Means for Table 5.8- DIP and School Characteristics

	Mean	Std. Error
SES of the School		
low SES	47.38	.94
lower middle SES	44.24	1.21
middle SES	41.43	1.02
high SES	36.53	1.85
Grade Level		
KG2	46.06	.90
preschool	38.73	.84
Grand Mean	42.39	.65

Descriptive Means for Table 5.9- DAP, Teacher and School Characteristics

Variable	Mean	Std. Error
Parents Influence		
certain	58.14	1.31
great	62.24	1.84
Availability of Resources for Instruction		
Dissatisfied	57.42	2.12
Satisfied	62.96	1.17
Course-Child Development		
Did not take the course	58.42	1.66
Took the course	61.96	1.63
Course-Teaching Reading		
Did not take the course	63.38	1.36
Took the course	57.00	2.05
Salary		
Under 330 \$	58.08	2.19
330-430 \$	58.06	2.00
431-530 \$	61.01	1.86
Above 530 \$	63.59	1.52
Class Size		
0-19	63.88	1.81
20-25	59.60	1.96
26-30	56.60	1.86
31+	60.67	2.24
SES of the School		
low SES	66.81	1.72
lower middle SES	60.13	1.74
middle SES	57.22	1.90
high SES	56.59	2.89
Grand Mean	60.19	1.38

Descriptive Means for Table 5.10- DIB, Teacher and School Characteristics

Variable	Mean	Std. Error
Salary		
Under 330 \$	44.83	1.42
330-430 \$	44.28	1.17
431-530 \$	43.10	1.26
Above 530 \$	40.23	1.00
School Principal Influence		
certain	41.56	1.11
great	44.66	.75
SES of the School		
low SES	47.56	.89
lower middle SES	46.91	1.28
middle SES	43.45	1.02
high SES	34.52	1.98
Grade Level		
KG2	44.31	.94
preschool	41.91	.85
Grand Mean	43.11	.71

Descriptive Means for Table 5.11- DIP, Teacher and School Characteristics

Variable	Mean	Std. Error
SES of the School		
low SES	47.26	.91
lower middle SES	43.77	1.26
middle SES	41.78	1.04
high SES	39.18	2.07
Grade Level		
KG2	46.74	.92
preschool	39.25	.89
Salary		
Under 330 \$	45.41	1.52
330-430 \$	44.08	1.19
431-530 \$	42.15	1.31
Above 530 \$	40.36	1.01
Grand Mean	43.00	.70

Appendix F

Oral Interviews

The results of the interviews of six teachers were grouped according to the themes that emerged. The findings will be reported here and used in the discussion where appropriate. Many of the teachers reported that the number one reason for teaching young children was their love for them and for wanting to make a difference in their lives.

Reasons for teaching young children

For the young teacher, the reasons for teaching were different and had to do with her own bad school experiences:

T75- I hated school and the teachers and I wanted to go to teach in spite of that because I wanted to make a difference. My parents and school principal were against the idea especially that I could have gone into any other major. I remember my school principal telling me that “you want to teach young children, all you will be doing is wiping tears and changing diapers”, little did he know.

For another teacher, becoming a mother was the turning point

T 108- I did not plan into going to teaching. I have a degree in Interior Design but when I had my children, the teaching hours sounded more convenient and that is how I got into teaching.

Rewards in teaching young children

Teachers were asked to reflect on what keeps them in teaching and what they enjoy. Many responded that it is the children and their love of learning. One teacher in particular provided a detailed example on this.

T4- I love the thrill of coming to class every day and discovering something new about myself from the children. For example, we were doing a unit on insects and one child asked me do water spiders make webs and how do they stick on water. His question puzzled me so I went home and looked at encyclopaedias and I found that they have sacs. I also found out something else. My major was in history but I discovered that I love animals and if I have the chance I would major in veterinary medicine.

Changes to be seen

Teachers indicated that they would have liked to have bigger rooms and fewer students, more resources and books. One teacher talked about parents' involvement.

T 108-low SES school

Given that many of my student's parents do not know how to read and write, I would invite parents more to my classes. But the problem is that parents do not ask about their children. Some parents tell me that I have a free hand in disciplining their child. He only listens when threatened or punished. I hate this but I feel I can't teach the child to be any different because he is going to go home and be disciplined differently.

Changes in how they teach

This item provided a lot of insight into how teachers continuously struggle with their changing classroom realities. Some teachers expressed how attending in-service training has affected their classroom practices.

T4- Middle SES- I have been teaching now for ten years, a lot has changed. In the last three years I have been trying more of a child-centred approach. I have been involving students in classroom decisions more. You see, every year I notice that children are more alert and have a tremendous amount of enthusiasm about learning. Sometimes

they even bring in information with them and share it with the class. I used to rely a lot on worksheets and writing. Now I allow children to express themselves a lot more and my use of worksheets is just to please the parents.

T2-High SES, my major was sociology but I wanted to teach so I got a teaching diploma. When I first started teaching I was single, working with children gave me the feeling of motherhood. After getting married, and having my first child my feeling of motherhood changed into affection. I wasn't dry with kids. With time I matured and developed, I became surer about myself.

A lot of things have changed. For example, I used to stay worried about dragging the activities till the next day, now I don't worry about that anymore. Another thing I feel better at is managing students in class. I now use different procedures with students. I observe kids and know what to expect next time. You can say that when I started teaching 'the students used to run the class, now I run it.' I love teaching it is like a hobby to me.

Appendix G

Classroom Observation

Child-Child Interaction

Regardless of the school's SES, children exhibited similar behaviours in terms of their cognitive and social development. Letter and numeral reversals as well as confusion in mixing between Arabic and English writing were clearly similar. The type of play children engaged in were similar but the elaboration and detailed planning differed.

Class F-Low SES, KGI

At the Math table:

Student 1: Miss, he wrote the "9" like a "p". No response from the teacher.

Student 2 says: The '9' looks like a "q" so when you want to write '9' think of 'q'.

Here, peer tutoring appears to have been effective.

Class A- KGII, High SES

Children were playing with a math puzzle and they came across $8 + 4$. The teacher gave them counters to find the sum.

Student 1-12 means 1 & 2

Student 2-No, it is 2 & 1, which number do you hear first "the ten and then the one so they are 2 & 1.

Children demonstrating their understanding of numbers as they relate it to the letter-sound lesson they just did.

Class L, KGI, middle SES

Following a lesson on pond animals, children were colouring pictures of them. Three children finished colouring and decided to add details.

One girl decided that the dragonfly shape looks like an ice cream cone. So, she drew more ice cream cones

Another drew a girl's face as sad because the girl had no more ice cream.

A boy was colouring a turtle and he decided that the ice cream cone he drew would go into the turtle's mouth as food.

Class B-KGII, low SES

Children were asked to draw the earth.

St 1- How can we draw earth? It is so hard.

St 2- It is easy, all you need is a circle and scribble in it some lines.

St 3- I will use brown and blue because earth has water.

Differences became apparent in the learning centres available for children. In two of the low SES schools, the dramatic area as well as the reading area was a major visible component of the preschool programme. However, in other low SES, and due to the small size of the class, learning centres were few. In middle and high SES schools, block areas and manipulatives were within easy access to children but many did not have a dramatic play area.

There were several similarities and differences among the 18 classrooms observed. Regardless of the SES of the school, all classrooms were rich in print and provided rich display of children's own work

Class B- KGII, High SES, teacher with bachelor's other than early childhood

T: Why do we get dogs?

St 1: to chase cats.

St-2: It can be our friend.

The teacher then said "we get dogs to be a guard because it barks at strangers".

Then a little girl said: "I have a dog and he barks at people all the time even at my friend". The teacher provided no comment.

Appendix H

Excerpts from Comments on Teacher Questionnaires

Views about children and teacher's use of metaphor

T 52- I believe teaching and training young children is like regarding them as mines rich in gems of extremely high value. Education can alone cause them to show their treasures and in this way they may be a benefit to the whole of mankind.

T-3 I see children as sponges who are ready absorb everything you give them.

Views about what needs to be done

T 95- I would like to have more knowledge of child's psychology and child development

T 36- in my opinion, activities that integrate multiple subjects (reading, math, science, and social studies) are the main objectives for teaching kindergarten classes.

T 10-there is so much that needs to be changed in our educational system, however, very few parents are aware of the importance of that change.

T 9-good luck, hope this research will positively contribute to ECE conditions in Lebanon