

PARENTS' BELIEFS ABOUT DEVELOPMENTALLY APPROPRIATE PRACTICE
IN EARLY CHILDHOOD PROGRAMS IN TAIWAN

Yaotsung Yen, B.S., M.Ed.

Dissertation Prepared for the Degree of
DOCTOR OF EDUCATION

UNIVERSITY OF NORTH TEXAS

August 2008

APPROVED:

George S. Morrison, Major Professor
Michael Sayler, Minor Professor
Tommie Lawhon, Committee Member
Lloyd R. Kinnison, Committee Member
James D. Laney, Program Coordinator
M. Jean Keller, Committee Member
Leslie Patterson, Chair of the Department of
Teacher Education and Administration
Jerry R. Thomas, Dean of the College of Education
Sandra L. Terrell, Dean of the Robert B. Toulouse
School of Graduate Studies

Yen, Yaotsung. Parents' beliefs about developmentally appropriate practice in early childhood programs in Taiwan. Doctor of Education (Early Childhood Education), August 2008, 119 pp., 19 tables, reference list, 113 titles.

Western educational policies and practices have impacted Taiwanese early childhood programs. The concept of developmentally appropriate practice has become part of the educational program for young children in Taiwan. This research study was completed to: (a) describe Taiwanese parents' beliefs about developmentally appropriate practice (DAP) in early childhood programs; (b) examine group differences between fathers' and mothers' beliefs about DAP; (c) investigate group differences between parents of different socioeconomic statuses beliefs about DAP; (d) explore group differences between parents' beliefs about DAP when their children attend different types of schools (public and private); and (e) identify salient factors related to the variability of developmentally appropriate beliefs of Taiwanese parents.

Three hundred seventy-nine matched Taiwanese parent pairs (mothers and fathers) participated in this survey research study. All parents had at least one child between the ages of 3 and 6 years. Four hundred forty-eight children attended public schools, and 415 attended private schools. The Teacher Beliefs Questionnaire was modified and used to collect data in this study.

Findings showed: (a) fathers' and mothers' beliefs about DAP are significantly correlated; (b) fathers' and mothers' socioeconomic statuses are significantly correlated with their developmentally inappropriate practice beliefs; and (c) parents' socioeconomic

status was a significant predictor of their DAP belief scores and family, culture, and inclusion belief scores.

Future studies are needed to determine the effectiveness and appropriateness of the Teacher Beliefs Questionnaire with Taiwanese parents. Including parent's age, child's gender, child's birth order, residential region, and number of children as variables in future research studies may explain variations in parents' DAP beliefs. Employing qualitative methods, such as classroom observations, case studies, and interviews may be used to verify these findings.

The Taiwanese Ministries of Education and Interior may find this study's results useful in creating policies and best practices related to the education of young children. Teachers may use these results to guide their work with parents.

Copyright 2008

by

Yaotsung Yen

ACKNOWLEDGEMENTS

I would acknowledge all who helped and encouraged me to complete my graduate studies. Sincere gratitude is given to my advisor and dissertation chair, Professor George S. Morrison, for unwavering support, guidance, and expertise not only in my dissertation but also throughout my doctoral program. Dr. Michael Saylor served as my minor professor in the field of Gifted and Talent Education and his mentorship was most helpful. I appreciated the advice from other committee members, Drs. Jean Keller, Tommie Lawhon, and Lloyd Kinnison. Their guidance allowed me to complete this dissertation.

Special appreciation is extended to the former Dean of the College of Education, Jean Keller, for her continued encouragement. Drs. Oliver Chyan, Philip Yan, Huei-Chun Liu, Sherron Brambaugh, and Mike Paul, and Terri Chen were faithful friends during this journey, and my thanks are given to each one of them.

Finally, I thank my wife, Ying-Ying, my son, Meng-Ping, my parents, and my mother-in-law for their unending belief in me and their support to allow me to seek my dream. With encouragement from my family, I have learned that anything is possible.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	iii
LIST OF TABLES	vi
Chapters	
I. INTRODUCTION	1
Background	1
Statement of the Research Problem	7
Purpose of the Study	8
Research Questions	8
Significance of the Study	9
Definition of Terms	9
II. REVIEW OF LITERATURE	13
Confucianism and Taiwanese Education	13
Early Childhood Education in Taiwan	15
Theoretical Framework of Early Childhood Development	17
Developmentally Appropriate Practice	25
Parent Attitudes and Beliefs	36
III. METHODOLOGY	44
Participants	44
Instrumentation	45
Collection of Data	49
Assumptions	49
Data Screening	50
Data Analysis Strategies	50

IV.	RESULTS	52
	Demographics	52
	Psychometric Properties.....	57
	Primary Analysis.....	67
	Summary	77
V.	DISCUSSION	79
	Summary and Discussion.....	79
	Contributions and Limitations	83
	Future Research	84
	Implications.....	85
	Summary	88
Appendices		
A.	QUESTIONNAIRE IN ENGLISH.....	89
B.	QUESTIONNAIRE IN CHINESE	96
C.	IRB APPROVAL LETTER.....	101
	REFERENCES	105

LIST OF TABLES

	Page
1. Socioeconomic Status Index Table.....	48
2. Descriptives on SES, Age, and Education Level of Mother and Father.....	53
3. Frequency and Percentages of Highest Education Completed, Occupation Between Mother and Father.....	54
4. Frequencies and Percentages of Family Variables–Number of Children, School Type, Family Type, SES Rank, and Low/High SES	55
5. Descriptives of Child’s Age.....	56
6. Frequencies and Percentages of Ranking of Influences	57
7. Reliability Scores for DAPB, DIPB, and FCI	58
8. Descriptives of Mothers’ and Fathers’ Factor Scores for DAPB, DIPB, and FCI	59
9. Descriptives of Items Included in DAPB Items by Mother and Father Respondents	60
10. Descriptives of Items Included in DIPB Items by Mother and Father Respondents	63
11. Descriptives of Individual Items in FCI Items by Mother and Father Respondents	65
12. Pearson’s Product Moment Correlations Between the Mothers’ and Fathers’ Beliefs	66
13. Paired <i>t</i> -test of Mothers’ and Fathers’ Scores on DAPB, DIPB, and FCI.....	68
14. Pearson’s Product Moment Correlations Between SES and the Factor Scores by Mothers and Fathers.....	69
15. Descriptives of Factor Scores by Mother and Father and Low Versus High SES	70

16.	Descriptives of Factor Scores by Mother and Father and Public Versus Private School	73
17.	Linear Regression Predicting DAPB Scores From Gender, SES Rank, and School Type	75
18.	Linear Regression Predicting DIPB Scores From Gender, SES Rank, and School Type	76
19.	Linear Regression Predicting FCI Scores From Gender, SES Rank, and School Type	77

CHAPTER I

INTRODUCTION

Background

Taiwanese early childhood professionals and educators have discussed the importance of child-centered philosophy for over 30 years (Lin & Tasi, 1996). Many teachers and caregivers working at nursery schools and kindergartens have had educational courses and information based on child-centered philosophy congruent with developmentally appropriate styles, techniques, and curricula (Liou, 2006). Taiwanese teachers are often encouraged to use developmentally appropriate practices in their classrooms (Chen, 2005). Interestingly, young students' parents often prefer teachers to emphasize academics and study skills rather than social and emotional development due to the importance of academic success among the Taiwanese population (Hsieh, 2004). As the Taiwan Ministry of Education favors more educational practices similar to the United States, Taiwanese parents have not embraced this change to date (Ministry of Education, 2006).

Early childhood education and care is the most rapidly growing segment of the education system in the past 50 years in Taiwan (McMullen et al., 2005). This growth is due primarily to the increased percentage of children receiving non-parental care and preschool education, as a consequence of Taiwan's industrial transformation. The Ministry of Education (1999) reported that, in 1950, less than 30 kindergartens were opened in Taiwan. Since then, the number of young children enrolled in preschools and

kindergartens has increased dramatically (Ministry of Education). In 1997, more than 203,700 children attended preschools in Taiwan (Ministry of Education). This situation occurred because currently most families are nuclear families lacking relatives who live nearby to help take care of children when parents are working. Hence, parents demand more programs to meet child care needs. Private kindergartens are independently operated, while public kindergartens are affiliated with public primary schools. The Taiwanese government does not provide financial aid for private nursery schools for children ages 1 month-to-6 years-old and kindergartens for children ages 3-to-6 years-old. Public kindergartens and nursery schools implement child-centered curriculum and are less academically oriented as they must follow the government's educational policy (Hsieh, 2004). On the contrary, private kindergartens and nursery schools use a more teacher-centered and academic curriculum.

In Taiwan, there are two systems responsible for early childhood programs. The Ministry of Education supervises kindergartens for 4-6 year-old children and the Ministry of Interior supervises nursery schools for 1 month-6 year-old children. The Ministry of Education (2006) reported that Taiwan early childhood education and care previously belonged to a different governmental department. The Ministry of Education favored merging kindergartens and nursery schools to create a better learning environment. New policies are being introduced as preschool education is integrated under the Department of Primary Education in the Ministry of Education (Ministry of Education). In June 2003, the Ministry of Education formed an executive committee to explore a smooth transition to those new policies (Ministry of Education). This committee informs local government,

parenting groups, teachers, and representatives about the new policies and obtains feedback. These policies should be fully implemented in 2009, and new regulations will be in force.

Beginning in 2004, the Ministry of Education started promoting an education plan for 5-year-old children from lower-income (U.S. \$550 per-month) families in order to help more children who have been admitted into preschools and to ensure that all children receive basic care. To lessen family financial burdens, financial support of U.S. \$182 per semester is available for these families. Also, another ancillary education project has its focus on 5-year-old children in Taiwan's three isles (Ministry of Education, 2006). In 2005, the Ministry of Education expanded the project to include all 5-year-old children from indigenous families in 54 towns. In 2006, the Ministry of Education changed the plan to become nationwide and now is applying it to 5-year olds from all low income families. The plan from 2004 to 2008 has an estimated 80 million U.S. dollar budget. Numbers of children enrolled in kindergartens have increased over the years (Ministry of Education). By 2005, a total of 3,351 kindergartens admitted 224,219 children. All of these efforts have allowed more children to benefit from educational experiences. The Ministry of Interior (2006) reported the nursery school enrollment to be 324,772 children, an increase of 31% since 2005.

Confucianism is the most influential educational theory in Taiwan (McMullen et al., 2005). Chinese traditional culture is very important to the Taiwanese. Confucianism encourages people to respect hierarchical relationships between individuals so that teachers teach as well as guide students. Teacher-directed curriculum has had a great

impact on Taiwan's education system. Students follow teachers' directions. Many Taiwanese early childhood professionals are currently studying in Western countries and bringing new educational ideas to influence their pre-service teachers in colleges. The emphasis on education in traditional Confucian philosophy has deeply influenced Taiwanese parents' and teachers' educational ideas. Taiwanese think education and a college degree are the most important aspects of an individual's accomplishments and are necessary for the individual's future financial and career success (Lin, 2004).

Lu (1996) reported different points of view from parents and teachers concerning early childhood education in Taiwan. Lu conducted a research study about the purpose of kindergartens and daycare centers and the professional functions of teachers and caregivers in these institutions. The most frequent reason given by parents for enrollment of their children in kindergarten was to stimulate their children's growth in intelligence in the early stages. In the analysis of the professional functions, the findings pointed out that the parents expected teachers to teach academic-related skills to their children. Hyson, Hirsh-Pasek, and Rescorla (1990) reported mothers who had higher expectations of academic achievement for their children preferred that their children attend less developmentally appropriate programs which emphasize formal-schooling skills, such as direct-teaching strategies and pencil-paper activities. Many parents believe basic skills, such as knowing the letters of the alphabet and being able to count to 20, are more essential than social skills for success in school (Lin, 2004).

Early childhood professionals consider a child-centered curriculum the most beneficial to young children, and this continues to be the current best practice in early

childhood programs in the U.S. (Van Horn, Karlin, Aldridge, & Snyder, 2005; Bredekamp, & Copple, 1997). The philosophy of developmentally appropriate practice (DAP), a child-centered philosophy based primarily on the theories of Dewey, Piaget, Vygotsky, Erikson, Bronfenbrenner, and Gardner (Bredekamp, & Copple), has received widespread support as representing best practices in the U.S. The National Association for the Education of Young Children (NAEYC) published the DAP as a policy statement in 1987 and then revised it in 1997 (Bredekamp, 1987; Bredekamp & Copple). Early childhood education scholars disagree regarding DAP philosophy as being appropriate for every child in the U.S. and critiqued it as not being relevant for all children of all cultural groups, despite its emphasis on cultural appropriateness (Gestwicki, 1999). Early childhood professionals still endorsed DAP mostly as best practice in early childhood programs in the U.S., at this time (Bredekamp & Copple; McMullen, 1999). Over the past two decades, a sharp division has arisen between American early childhood education professionals who promoted DAP and parents who desired an approach that applies extensive use of large group activities, teacher-directed lessons and school-like materials to preschool teaching (Holloway, Rambaud, Fuller, & Eggers-Pierola, 1995). Most early childhood professionals think DAP is a non-academic approach. Developmentally appropriate practice applies academics in a more appropriate way than traditional instruction. DAP encourages curiosity rather than rote learning, and it creates a more sound base of knowledge that the child is more likely to retain (Elkind, 1996; Lubek, 1998).

Although some American parents may support DAP, Joffe (1997) found parents with less education, who were from ethnic minority backgrounds, were more supportive of formal, didactic methods than white, middle-class parents. There is also support from upper-middle-class child care environments for a didactic approach (Joffe). The challenge is to determine what are parents' understanding, knowledge, and expectations for DAP versus other methodologies available.

According to DAP, a teacher views the child as the primary source of the curriculum. The teacher also observes and offers appropriate materials and activities to match children's emerging cognitive, physical/motor, and affective/social development which is a child-centered approach to instruction. The National Association for the Education of Young Children (NAEYC) developed the guidelines associated with DAP.

Academics are stressed more than DAP in Taiwan classrooms (Hsue & Aldridge, 1995). Children are sent to prestigious schools to receive the highest quality of education. Parents are willing to sacrifice to send their children to quality schools as this represents higher social status. The role parents play in education is important in traditional Taiwanese culture. Some parents will promote academics above other activities with their children. DAP guidelines suggest parents focus on the developmental tasks of young children. Taiwanese parents value higher education and generally expect their children to attend universities. Because of these values and educational competition, parents in Taiwan will often provide stronger academic experiences for their young children (Hsue & Aldridge). Chen and Stevenson's (1989) study showed Chinese parents believed that in order to succeed in the future, children have to do well in school, and there must be an

emphasis on learning at home. Kindergarten teachers in Taiwan not only teach young children how to read and write but they also assign practice lessons to work on at home because of the expectation of the parents (Lin & Tsai, 1996).

It is important for parents to be involved in the education of their children from the beginning (Henderson, 1998). A cross-cultural study conducted in Finland, the United States, and China found that there is a need to involve parents in educational programs to enhance their knowledge and support of DAP (Hoot, Parmar, Hujala-Huttunen, Cao, & Chacon, 1996). In the U.S., early childhood education and care professionals endorsed DAP widely. Other countries have supported DAP on curricular beliefs and practices (McMullen et al., 2005). Since early childhood professionals introduced DAP into Taiwan a few years ago, the number of published articles about DAP in Taiwan is limited. Because of the lack of clarity surrounding the issue of commonality between parents' and teachers' perspectives of appropriate practices for young children, research addressing this area is needed. Here is a lack of empirical studies about parents' expectations in reference to developmentally appropriate classroom practices for young children in Taiwan.

Statement of the Research Problem

Due to the advancement of information exchanged across the world, Western cultures have significantly impacted Taiwanese early childhood programs. In the past 15 years, early childhood teachers in Taiwan have introduced to their classrooms the concept of attending to children's individual needs, democracy in the classroom, and the importance of free-play (Lin & Tsai, 1996; McMullen et al., 2005; Roopnarine &

Metindogain, 2006). Consequently, it is necessary for early childhood educational researchers to conduct research in order to understand the influences of the interplay between traditional Taiwanese and Western cultures. Confucianism has been the most influential education theory in Taiwan and conflicts with Western developmental theories. Moreover, Confucianism not only influences teachers' educational philosophy but also parents' (Hsieh, 2004; Government Information Office, Republic of China, 2000). Since DAP is based on developmental theories, it is important to know if Taiwanese parents understand and support DAP in early childhood program.

Purpose of the Study

The purpose of this study is to examine parents' beliefs about DAP in early childhood programs that serve children aged 3 through 6 in Taiwan's public and private nursery schools and kindergartens.

Research Questions

The researcher investigated the following research questions:

1. To what extent do parents in Taiwan believe DAP is important?
2. What are the differences, if any, between fathers and mothers on their beliefs about DAP?
3. What are the differences, if any, between parents of high socioeconomic status and low socioeconomic status on their beliefs about DAP?
4. What are the differences, if any, between parents enrolling their children in public and private early childhood programs on their beliefs about DAP?

5. To what extent, if any, do parents' sex, socioeconomic status, and child school type collectively predict their DAP beliefs?

Significance of the Study

There are many studies related to Taiwanese teachers' beliefs about DAP (Lin, 2004), but only two researchers have investigated Taiwanese parents' beliefs about DAP (Chang, 2003; Yang, 1997). A measurement of the parents' perception of DAP could be beneficial in aiding early childhood professionals in building stronger partnerships with parents. The researcher designed this inquiry to learn more about Taiwanese parents' beliefs in DAP and how their support DAP related to their sex, socioeconomic status, and the type of school their children attend.

Definition of Terms

1. Developmentally Appropriate Practice (DAP) is a position statement of the National Association for the Education of Young Children (NAEYC) (Bredekamp, 1987). It describes what NAEYC considers to be the best practices in early childhood education. DAP is a set of assumptions and guidelines for early childhood education programs. NAEYC developed the guidelines, and published the document, *Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8* (Bredekamp, 1987). DAP stresses early education which is both age appropriate and individually appropriate. While NAEYC is currently reviewing how culture interfaces with DAP, the original document had very little information regarding cultural diversity and appropriate practice (Bredekamp, 1987).

2. Developmentally Inappropriate Practice (DIP): Refers to teacher-centered teaching. Children are taught through lectures, drill-and-practices, and workbooks and worksheet activities, have few hands-on learning opportunities, and are punished for unacceptable behaviors (Charlesworth, 1998).
3. Parents' beliefs: refers to respondents' expressed value or attitude of the importance of developmentally appropriate practice.
4. DAP: The acronym for developmentally appropriate practices.
5. DIP: The acronym for developmentally inappropriate practices.
6. Early childhood program: Childhood program includes both school, and kindergarten.
7. Kindergarten in Taiwan: The term represents the early childhood education program that serves children, ages 4-to-6. Kindergarten is an educational institution which emphasizes education (Taiwanese Ministry of Education, 2005).
8. Nursery school in Taiwan: The term represents the early childhood education program that serves children, ages 1moth-to-6 year. Nursery school is a child care institution which emphasizes care (Taiwanese Ministry of Interior, 2005).
9. Socioeconomic status in Taiwan: According to Hollingshead's two-factor index of social position and the condition in Taiwan, the occupation index multiplied by 7 and education index multiplied by 4 are combined to get the socioeconomic status indices (Hollingshead, 1957).
10. Social position: The position of an individual in a given society and culture. A given position may belong to many individuals. Social position influences social status. Social positions an individual may hold fall into the categories of occupation.

11. Education index: According to the school system, the education index is divided into five ranks; uneducated, graduated from elementary school, graduated from middle school, high school or vocational school, graduated from a university or college, graduated from graduate school (Hollingshead, 1957).
12. Occupation index: According to the classification of Hollingshead, and the occupational condition in Taiwan, the occupation index is divided into five ranks; Semi-technical and non-technical workers: such as housewife, vendor, fisherman, seaman, waiter, servant, or unemployed. Technical worker: such as electrician, salesman, driver, tailor, beauty-specialist, barber, chef, or postman. Semi-professional worker and public servant: such as technician, cashier, general public servant, policeman, elementary school teacher, or low-level official. Professional and official: such as accountant, judge, lawyer, engineer, secondary school teacher, middle-level administrator, principal, and owner or manager of company. High-level professional and administrator: such as doctor, legislator, congressperson, college professor, military general, or president of a large enterprise (Hollingshead, 1957).
13. Socioeconomic Rank: in Taiwan, according to Hollingshead (1957), includes the two- factor index of social position and the condition in Taiwan; the occupation index multiplied by 7 and education index multiplied by 4 are combined to obtain a socioeconomic status score. Scores 11–18 are coded as a rank of I, 19–29 as II, 30–40 as III, 41–51 as IV, and 52–55 as V.
14. High SES: Individuals who had socioeconomic status scores greater than 40 were coded as high SES in the present sample.

15. Low SES: Individuals who had socioeconomic status scores less than or equal to 40 were coded as low SES in the present sample.

CHAPTER II

REVIEW OF LITERATURE

This review concentrates on Confucianism and Taiwanese education, early childhood education in Taiwan, theoretical framework of early childhood development, developmentally appropriate practice, effects of developmentally appropriate practice (DAP), Taiwanese culture and developmentally appropriate practices, and parents' attitudes and beliefs about DAP.

Confucianism and Taiwanese Education

Confucius lived in China around 500 B.C.E. The traditional cultural values and contexts of Taiwan are represented by Confucianism. Confucianism is centered around a social hierarchy in which people of lower status, such as employees, are expected to respect and obey those of a higher status, such as their employers (Chen, 1999). This hierarchical system has been applied by the Taiwanese to their educational system. As such, teachers wield the highest power and authority. Students are expected to never challenge their teachers, but rather show them obedience and respect. Another aspect of Confucianism is that the interests of the group are always ranked higher than those of the individual. Taiwanese often sacrifice personal interests in order to enable harmony in the larger group or society at large (Lin, 2004). In this context, individuals are commonly viewed as a member of the larger society or group; thus, a child is a part of a family, and a student is a part of a class. In traditional early childhood education in Taiwan, teachers simply expect that good children will naturally follow all the group activities, including

eating, singing, playing, and going to the toilet. Confucianism also highly values education, and in Taiwan academic achievement is considered a faithful indicator of personal social achievement.

Taiwanese parents view early childhood education as a preparation for elementary education. Most private preschools or kindergartens give children worksheets to do every day. Traditional children are under elders' teaching and supervision and are inferior especially to parents. Children need to accept parents' orders without questioning. At school, students must always follow the teacher's direction in learning (Lin & Tsai, 1996).

With traditional Confucianism's emphasis on education, academic achievement became essential for gaining higher social status for Taiwanese people. Teachers mostly give lectures to Taiwanese students for their learning and also expect students to memorize content. Early childhood professionals have criticized such methods for neglecting problem solving skills and creativity, perhaps a natural result of how students are assessed, mostly through written exams, not through the development of creative solutions to practical problem (Chen, 2002).

The research indicated the view of tradition was reflected in the education of young children in earlier years. Parents and teachers used a Confucian material called Three Word Canons, and they believed children should recite the materials even if they did not understand the meaning. Mechanical memorizing (e.g., flashcards, workbooks, and ditto sheets) became the traditional method of teaching and learning. Taiwanese parents and teachers expected young children to recite stories and poems. Traditional

education values have influenced children's learning. Taiwanese parents and teachers believe it is an honor to possess a great deal of knowledge, and thus stress knowledge, teaching, and learning (Lin & Tsai, 1996).

Early Childhood Education in Taiwan

Taiwan has experienced rapid economic growth since 1950 (Pan, 1992). Taiwanese average income increased per year from US\$137 to US\$2486 from 1950-1980. Taiwanese society began demanding more early childhood programs to meet the parents' needs because increasingly both parents worked, and extended family care was not available. Two different systems of early childhood programs exist in Taiwan, including kindergartens and nursery schools. According to Barclay's (1989) study, Confucianism's and Chinese culture's emphasis on hierarchical human relationships specify that young children always obey their teachers and caregivers in early childhood classrooms. Young children always need to follow the teacher's direction rather than making choices or learning and playing initially. Taiwanese early childhood teachers or caregivers believe environment and children's efforts are more influential to children's learning and achievement than children's personality and developmentally appropriate practice. Teachers or caregivers think children's success in academics is most important so children need to make an effort to succeed in school. Parents like to push teachers to give academic lessons or activities in preschools and kindergartens because they believe their children will develop their cognition faster with early formal academic learning at schools (Lin & Tsai, 1996).

Due to the many Taiwanese early childhood professionals who have studied in the United States, the Western culture has influenced early childhood programs. All teachers and caregivers working at nursery schools and kindergartens have studied educational courses based on child-centered philosophy congruent with developmentally appropriate style, techniques, and curricula. Academic-oriented curriculum in early childhood programs still prevails in Taiwan because of the parents' high expectations for their children. The differences between Western culture and the Taiwanese culture have been subject to considerable debate in Taiwan for a long time (Lin, 2004).

Many cultures have influenced Taiwan's early childhood education programs. Montessori curriculum is among the popular programs in Taiwan (Lin & Tsai, 1996). Other curricula plans, such as the unit plan, theme unit, open education, and discovery education, are also well-known curricula plans in early childhood programs. Recently, early childhood professionals introduced the project approach to Taiwan and adapted it for implementation into laboratory schools. The National Association for the Education of Young Children (NAEYC) published the guidelines for developmentally appropriate practice (DAP), and Taiwanese early childhood professionals translated DAP into Chinese for early childhood professionals as a reference for establishing theoretical and appropriate practices for young children. Although early childhood professionals have introduced new methods, and Taiwanese government supported DAP being implemented in early childhood classrooms, the traditional Confucius philosophy of education rooted in Taiwan's education remains strong (Huntsinger, Jose, Liaw, & Ching, 1997; Lin,

Gorrell, & Taylor, 2002; Lin & Tsai, 1996). The Taiwanese government has already developed standards for early childhood programs (Lin, 2004).

Parents play an important role in early childhood education because early childhood education in Taiwan is non-compulsory. Most programs, whether kindergarten or nursery school, tend to be full-day services. Also, private schools are dominant, although public programs are increasing (Barclay, 1989; Lin & Tsai, 1996; Pan, 1992). Taiwanese organized and ran private kindergartens and nursery schools like businesses and depended on parents' monetary support. The government does not give private nursery schools and kindergartens financial aid (The Ministry of Education, 2006). Public kindergartens and nursery schools follow child-centered curriculums and are less academically oriented, but private kindergartens and nursery schools used teacher-centered curriculum and more academic approaches.

Theoretical Framework of Early Childhood Development

Developmentally Appropriate Practice (DAP) is based on concepts from John Dewey, known as one of the progressive educational reformers in America, and the developmental theories of Jean Piaget, a Swiss genetic epistemologist; Erik Erikson, a German-American psychoanalyst; Lev Vygotsky, a Russian developmental psychologist; Bowlby, a British psychoanalyst; Bronfenbrenner, an American human ecologist; and Gardner, an American developmental psychologist. DAP, thus, combines constructivist, psychoanalytic, ecologist, contextualist, and multiple intelligences views of development (Bredekamp & Copple, 1997).

Dewey

John Dewey's notions of progressive education reflected a belief that children should learn the value of community and democracy through their daily classroom lives, and promoted what became known as the Progressive Movement which enhanced free play, child-centered discovery learning, and flexible schedules (Osborn, 1991). Dewey's philosophy offered the early childhood educators an openness of thinking and teaching, one that would permit the flexibility required to meet the needs of children from diverse communities and cultures as well as the needs of a developing democracy (Roopnarine & Johnson, 2005).

Dewey believed children were active learners and should learn directly from social and real life (Dewey, 1916). Young children had opportunities to engage in daily living activities in Dewey's lab-school.

Piaget

Jean Piaget provided a theoretical foundation for understanding of stages of cognitive development including four stages of cognitive development, two of which occur from birth through age 5. The sensorimotor stage encompasses children from birth to age 2. The pre-operational stage takes children from age 2 up to 5-7 years. Piaget believed all children are active learners who explore from their environment. Children need to act on things to learn, and need to have concrete interactions (Crain, 2004).

Jean Piaget had a most profound effect on DAP. His theory of intellectual development is foundational to NAEYC's position of DAP for young children (Gestwicki, 1999).

Piaget's theory of child development suggested an interactionist or constructivist approach to learning, assuming that children actively participate in the construction of their own knowledge (Crain, 2004). Piaget believed children construct knowledge from within the individual in interaction with the environment. Play and the arts have an important function in children's construction of knowledge (Piaget, 1923/1959). Piaget advocated two processes, assimilation and accommodation, in which the child must form mental schemata that represent the way in which children organize and retain their knowledge. Assimilation means taking in, as in eating or digestion. For example, a baby might try to assimilate an object by grasping it. Some objects do not quite fit into existing structures, so a baby must make accommodations in his/her structures. For example, a baby girl might find that she can grasp a block only by first removing an obstacle. Through such accommodations, infants begin constructing increasingly efficient and elaborate means for dealing with their world. Piaget believed every child goes through the same sequence of cognitive development although the rate of the development varies among children because of the learning environment (Piaget, 1966/1969).

Piaget rejected the view that a child's learning occurred through the process of stimulus-response or copying of reality. Piaget's theory suggests an active role for early childhood education. Teachers should avoid telling children what they must know, either directly or indirectly. Rather, teachers should plan activities that provide children with the opportunity to think about activities related to manipulating concrete materials and to generate conceptual skills. Teachers also must raise questions, creating a degree of

cognitive conflict, and propose issues that compel children to think in more mature ways (Crain, 2004).

Vygotsky

Vygotsky's concept of cognitive development is another well-known theory that has influenced the field of child development. He asserted that inner development and environmental forces are both important for learning (Crain, 2004). Three central concepts of his theory are (1) culture as a mediator of cognitive structuring, (2) movement from intermental to intramental, and (3) a phenomena called the Zone of Proximal Development (ZPD). The ZPD has stimulated much more interest in the teaching process itself--how adults can help a child solve problems or use strategies that are initially beyond the child's independent abilities (Miller, 2002). The adult at first provides some good ideas to assist the child's learning but reduce the number of them when the child becomes more involved in the activity. The assistance is like a temporary scaffold that comes down when construction is finished. Scaffolding has also been used to teach mathematics, to encourage make-believe play, and to help children with many other activities (Berk & Winsler, 1995).

Therefore, Vygotsky stressed the relations between people and the cultural context in which they interact with shared experiences (Berk & Winsler, 1995). According to Vygotsky, language is the most important psychological tool. It frees people from their immediate perceptual experience and allows them to represent the unseen, the past, and the future. Although language is a primary device for social communication with others, this social tool also goes into the mental underground.

Humans use speech as a tool to connect with their social environments. Children's language development serves as communication of needs and social functions. Vygotsky asserted that children internalized their language to enhance higher thinking skills and asserted that when the child reached the stage of concrete operations, they did not need to depend on language as heavily (Vygotsky, 1934/1986).

Erikson

Erikson theorized the psychosocial stages of early childhood. The first three stages, which occur during the first 5 to 6 years are: 1) trust vs. mistrust, 2) autonomy vs. shame and doubt, and 3) initiative vs. guilt (Erikson, 1982). Children first need to feel safe and secure as they explore their learning environment. The sense of trust children acquire begins shortly after birth. At about 2 years, children begin to develop a sense of their own autonomy, which is Erikson's second stage. Teachers and parents of toddlers are familiar with No and Mine stages as toddlers begin to develop a sense of autonomy. At about 4 or 5 years of age, children develop a sense of initiative when provided with opportunities to work independently, express their creativity, and learn to solve problems (Erikson, 1950).

Erikson contributed to three methods for studying development: direct observation of children, cross-cultural comparisons, and psychobiography. His forays into cultural anthropology pointed out the inherent limitations of basic Freudian theory (Crain, 2004). A child will most likely develop a positive ego identity encompassing trust, autonomy, initiative, and industry if they are accepted in a positive manner by society at

large. If the needs of the child are ignored and unaccepted, the child could develop an ego identity reflective of mistrust, shame, guilt, and inferiority.

Psychosocial Stage 1-Trust vs. Mistrust. Erikson's theory asserted the most fundamental in life is this first stage. This stage occurs between birth and one year of age. (Thomas, 2002). An infant develops a sense of how reliable people and objects are in their world. They need to develop the right balance between trust and mistrust. If the scales are weighted on the side of trust, children develop the belief that their needs and desires may be obtained. If mistrust predominates, children will have trouble forming close relationships.

Psychosocial Stage 2-Autonomy vs. Shame and Doubt. This second stage is stressed on children developing a greater sense of personal control. This stage takes place during early childhood (Thomas, 2002). Children need to strike the right balance between autonomy and self-control. Children need to learn what they can do, what is safe to do, what they should do, and what kind of guidance they still need from their parents. Children learn to make their own choices and decisions, to exercise their self-restraint, and to follow their own interests. Fear of losing self control may inhibit their self-expression and cause them to doubt themselves, be ashamed, and experience a loss of self-esteem.

Psychosocial Stage 3-Initiative vs. Guilt. This stage takes place during the preschool years. The conflict between a sense of purpose allows a child to plan and carry out activities, and the moral reservations a child may have about such plans (Crain, 2004). This stage allows the child to try new things and test new powers. Children learn how to

control and resolve conflicts and have the ability to pursue goals. This stage is most fully developed if there is too much guilt or fear of punishment.

Bowlby

Bowlby is notable for his work in child development, pioneering interest in the attachment theory, and concepts built from ethology and developmental psychology. Throughout most of human history, humans searched for foods, and often risked being attacked by larger predators. When threatened, humans cooperated to protect their sick and young; to gain this protection, children needed to stay close to the adults. Thus, children used signals to develop attachment behaviors to have close relationships with caretakers. The two obvious signals are crying and smiling, which an infant uses. When hungry, an infant seeks a caregiver's immediate attention. When an infant smiles, parents feel love for the infant and enjoy being close. An infant creates attachment behaviors by crying and smiling (Bowlby, 1988).

Bowlby assumed the quality of care that infants receive will affect the nature of and impact their attachment behaviors. With responsive and sensitive care, infants come to see their primary attachment figure as a source of security, and develop a secure base from which to explore their world (Miller, 2002).

Bronfenbrenner

Bronfenbrenner was known for developing his Ecological Systems. He characterized the many levels of environment that influence a person's development.

He delineated five types of nested systems including : 1) microsystem (patterns of activities roles and interpersonal relations affected), for example, infants interact

primarily with family members; 2) mesosystem (which is two microsystems in interaction), for example, a child's interactions with teachers affect interactions with parents; 3) exosystem (external environments which indirectly influence development), for example, a teacher's family life will influence the teacher and thereby the child; 4) macrosystem (the larger socio-cultural context), for example, cultural attitudes and laws regarding the education of gifted students influence the operation of a school and therefore a child's interaction with teachers; and 5) chronosystem (the evolution of the external systems over time), for example, as a child gets older, he or she will be more interested in learning because he/she encountered a good teacher or he/she knows how to learn better by his experiences (Bronfenbrenner, 1979).

Gardner

Gardner (1999), notable for multiple intelligences, has had a profound impact on thinking and practices in education which described eight types of intelligence:

(1) Linguistic intelligence includes verbal comprehension, syntax, semantics, and written and oral expression; (2) logical-mathematical intelligence includes inductive, and deductive reasoning, and computing; (3) musical intelligence involves pitch discrimination, sensitivity to rhythm, timbre, the ability to perform them in music and music composition; (4) bodily-kinesthetic intelligence entails the potential of using one's whole body or parts of the body to perform a task or fashion a product; (5) spatial intelligence which involves the potential to recognize and use patterns of wide space and more confined areas; (6) interpersonal intelligence is concerned with the capacity to understand the

intentions, motivations and desires of other people; (7) intrapersonal intelligence includes the capacity to understand the actions and motivations of others and to act sensibly and productively based on that knowledge; and (8) naturalist intelligence enables human beings to recognize, categorize, and draw upon certain features of their environment. (p. 41)

Developmentally Appropriate Practice

After the 1957 Russian launching of Sputnik, some Americans were critical of John Dewey's ideas and progressive education. The American public was in the mood for effective academic solutions, and education began to focus on academically oriented programs. Moreover, during the 1980s, Japan's economic success resulted in American education's return to the basic, including drill and memorization (Goffin & Wilson, 2001). At the time, many young children received rote learning and whole group instruction in early childhood classrooms. Teachers emphasized narrowly-defined academic skills when the early childhood professionals supported more active learning approaches based on a broader interpretation of children's educational needs and abilities. Children can learn on their own paces or learn by themselves. Early childhood professionals were concerned about testing, placement, and retention practices for young children (Isenberg & Jalongo, 2003). Teachers imposed next-grade expectations on earlier grades regardless of children's current interests, needs, and competencies as these trends especially prevailed in kindergartens and primary grades. However, concern about appropriate practices also applied across early childhood education. Increasing numbers of infants and toddlers were being served in group-care settings where expectations and practices

more appropriate for older children were too often imposed on younger ones. On the basis of these concerns, the National Association for Education of Young Children (NAEYC) assumed a leadership role in adopting guidelines for developmentally appropriate practice (DAP).

Bredenkamp (1987) edited a historically significant document with the publication of *Developmentally Appropriate Practice in Early Childhood Programs (DAP)--serving children from birth through age 8*. Revised in 1997, this publication provides specific information teachers and administrators need to understand the constructs of DAP and implement it in a practical way. Bredenkamp defined DAP within 2 dimensions: age-appropriateness and individual appropriateness, and gave three guidelines for measuring activities: child-initiated, child-directed, and teacher-supported.

NAEYC designed the concept of DAP to refer to programs based on knowledge about how children develop and learn (Bredenkamp & Copple, 1997). DAP focuses on the whole child despite gender, culture, disabilities, and other factors. Teachers need to implement curriculum in classrooms to meet both group and individual children's needs and learning styles (Hart, Burts, & Charleswoth, 1997). The environment should promote children's interactions with content, materials, and activities. Early childhood teachers should coordinate content, materials, and activities with each child's level of development and learning style (Isenberg & Jalong, 2003). The second edition of the guidelines added social and cultural aspect of the children as a core dimension of DAP. DAP guidelines included three dimensions of appropriateness for professionals to make

decisions about their practices with young children: age appropriateness, individual appropriateness, and appropriateness for the cultural and social context of the child.

The dimension of age appropriateness refers to the developmental and functioning age of the child. Human development indicated universal, and predictable, sequences of growth and change as children develop physically, emotionally, socially, and cognitively during the first 8 years of life (Bredkamp & Copple, 1997). Children of the same chronological age present a wide range of developmental-age functions within each of four areas (Crain, 2004). Knowledge of the typical child's age-related development provides a framework for practices for content activities, materials, interactions, or experiences related to the child developmental age so she or he can achieve, maintain interest, and feel safe with various challenges (Miller, 2002).

The dimension of individual appropriateness means each child is unique including personal characteristics, timing of growth, family background, former experiences, and learning styles (Lin, 2004). Awareness of each child's strengths, interests, and needs in the group provides guidelines for adult-child interactions and for a curriculum that includes materials, ideas, and an environment that helps each individual child's ability emerge while providing experiences to facilitate and challenge each child's continued growth.

Cultural and social contact appropriateness means that the social and cultural environment should be familiar to the child (Bredkamp & Copple, 1997). Perceptions of various social and cultural differences help to establish respectful perspectives which are

essential for professionals to ensure that activities, materials, ideas, and experiences for children are meaningful, and relative to children and their families.

In contrast to DAP, developmentally inappropriate practice (DIP) is defined as children's learning activities that involve formal, direct-instruction, whole group lecture, workbooks, and rote-drill practice activities within an inflexible time schedule (Charlesworth, Hart, Burts, Mosely, & Fleege, 1993). The DIP curriculum involves traditional content areas including math, science, and social studies, in which each subject is taught without integration. The context of this curriculum does not relate to children's daily experiences; the materials are not meaningful to children; and there is little opportunity for hands-on activities (Hsieh, 2004).

DAP views each child as a learner with developing mental abilities but varying rates of development difference among children (Bredekamp, 1987; Bredekamp & Copple, 1997). From this view, the DAP curriculum matches activities to the learner's level of development. Psychometric educational philosophy views the learner as having measurable abilities that are quantifiable according to age. Elkind (1989) has criticized this philosophy because it assumes all children should receive the same curriculum because each child in the same age group should have equal ability. Regarding the learning process, DAP promotes interactions with materials that can stimulate child development so that he or she learns to solve problems. In contrast, the psychometric philosophical approach focuses on particular sets of learning principles and skills, such as decoding and intermittent reinforcement. According to DAP, learning is a process of constructing knowledge, but with the psychometric philosophical approach, knowledge is

an outcome that can be measured and acquired independently through the learning process (Elkind).

Developmentally appropriate practice (DAP) refers not to a curriculum, but rather to a distinct philosophy for achieving the standard educational goal of producing creative and critical thinkers (Galen, 1994). If educational philosophies are viewed on a spectrum, traditional education on the one hand—which emphasizes teacher direction and academics—and DAP on the other, would be located on either end of the spectrum focusing on child-centered activities. Actual classroom implementation of these differing philosophies always falls somewhere between these two poles.

Philosophical differences between traditional education and DAP have been identified by Elkind (1989). He focuses his evaluation around four conceptual differences. First, DAP philosophy sees learners primarily in terms of their developing abilities, whereas traditional education focuses on learners' existing abilities, which are both quantifiable and measurable. Second, DAP stresses that learning as an integration of both process and content, while traditional education conceptualizes learning as discrete skill acquisition. The third difference focuses on understanding and knowledge. For DAP, knowledge is understood as an interaction between environment and the learner's mind (Isenberg & Jalongo, 2003). For traditional education, however, knowledge is viewed as something external to the learner which the learner can acquire. The acquisition process is distinct from knowledge. Acquired knowledge can be measured objectively and is considered distinct also from the learner. A final difference between DAP and traditional education involves the strategy for achieving the aim of producing creative and critical

thinkers. DAP proponents focus on giving children experiences which require creative and critical thinking, and allowing children to explore and follow their interests as they engage in such experiences. Traditional education, on the other hand, emphasizes the role of the teacher in guiding children's development through a broad knowledge base which provides critical thinking tools which children will use later in life (Lin, 2004).

There are a number of tensions around DAP curriculum. Although there is an emerging emphasis on curriculum integration, at the same time, paradoxically, there are, federal and state pressures on preschool, kindergarten, and primary grade programs for accountability and for standards-based reform (Seefeldt, 2005). Teachers use many tests and more standardized and subject-centered curricula in reading and mathematics. No Child Left Behind was signed into law on January 8, 2002. Now, the national K-12 standards and standardized assessment-driven education movements have begun directly influencing educators who work with children before they enter kindergarten. Many states have already developed standards for preschool or pre-kindergarten levels (Hyun, 2003). In 2002, the nation's leading organization, the National Association for the Education of Young Children (NAEYC) approved "Early Learning Standards: Creating the Conditions for Success," which is designed to align with K-12 standards (Roopnaire & Johnston, 2005).

Effects of Developmentally Appropriate Practice

Advocates of DAP claim that this method of results in enhanced child development and greater learning (Van Horn, Karlin, Ramey, Aldridge, & Snyder, 2005). A growing body of multi-faceted research supports these claims.

One area of research has focused on children's social-emotional and cognitive development. Hyson, Hirsch-Pasek, and Rescorla (1990) found that preschool children had lower levels of test anxiety when enrolled in child-centered programs rather than traditional academic programs. Similarly, Burts et al. (1990) found that children in classrooms not utilizing DAP experienced more stress throughout the day, particularly during group times and workbook activities.

Another area of research has focused on the development of children's creativity. In Hyson, Hirsch-Pasek, and Rescorla's (1990) study, children increased creative development when teachers allowed children greater freedom in initiating their activities in classrooms. Children scored higher on measures of creativity in more traditional, and academically-oriented, classrooms as cognitive development was analyzed, particularly in terms of creativity without their cognitive competence, and traditional measures of achievement.

In terms of language development, studies (Marcon, 1999) have also shown an advantage to child-initiated, developmentally appropriate educational programs when compared with academically-focused ones. Marcon (1992) found that public school preschool programs which used child-initiated learning environments produced children with better verbal skills, as indicated on their progress reports. Similarly, Dunn, Beach, & Kontos (1994) found that programs with higher quality literacy environments and with more developmentally appropriate activities produced children with greater receptive language abilities. Finally, in terms of children's confidence in their own cognitive skills, some studies found that young children were more confident when learning in

developmentally appropriate programs. The children in these studies who were in child-initiated programs more positively described their cognitive competence than those in academically-oriented ones (Mantzicopoulos, Neuharth-Pritchett, & Morelock, 1994; Stipek, Feiler, Daniel, & Milbum, 1995).

If the school used achievement tests and report cards, it was difficult to compare whether DAP, child-centered programs, or traditional programs were superior. Sherman and Mueller's study (1996) indicated that children attending developmentally appropriate kindergarten through second grade programs performed better on reading and mathematics achievement tests than those in traditional classrooms. Similarly, Marcon's study (1999) found that children's math and science performance was better in child-initiated classrooms. On the other hand, Hyson, Hirsh-Pasek, and Rescorla (1990) observed no substantial difference in mathematics performance for preschool children in these various types of classrooms.

A few studies have looked at longer-term effects of DAP on children's learning. These studies suggest that DAP leads to better learning later on. For example, Frede & Barnett (1992) found that children who attended highly developmentally appropriate preschool programs did well academically in their first grade performance. Likewise, a study by Burts et al. (1993), involving children of low socioeconomic status showed that children who attended highly developmentally appropriate kindergartens out-performed those who attended kindergartens where the programs were not as appropriate. Given the fact that children's current classrooms inevitably also affect their performance, these are encouraging findings. Furthermore, such differences between children in more

appropriate or less appropriate classrooms which are observed even a year or more later indicate the importance of children's earliest years of learning.

Although the above research suggests the superiority of DAP over traditional programs, DAP is clearly not the norm in all early childhood programs (Dunn & Kontos, 1997). Furthermore, even though a growing number of educators endorse DAP, they often have a difficult time in implementing it into their classrooms. Here, professional preparation is necessary, and it can be quite effective in helping teachers to implement DAP. Not only do teachers need help from early childhood professionals, but the professionals themselves need training in how to give support and assistance teachers need and desire. In addition, teachers need to be taught how best to help parents understand DAP and the benefits DAP offers for children.

To summarize, as a whole, research favors DAP over traditional educational philosophy and instructional methods for young children. In general, the research indicates that child-centered programs are associated with higher levels of children's cognitive functioning. When these results on cognitive functioning are combined with the results showing that lower stress levels and higher motivation are also associated with DAP classrooms, then a strong case can be made for DAP. However, at times, academic classrooms can result in higher achievement levels for young children (Gestwicki, 1999). Since cognitive achievement has generally been shown to be at least equal in DAP classrooms when compared with traditional ones, it would seem prudent to explore ways in which the cognitive benefits of DAP can be effectively communicated with parents (Stone & Litcher-Kelly, 2006).

Some early childhood professionals do not support DAP, and some researchers have criticized DAP for its weaknesses. In some cases, researchers have reported either no effects of DAP with preschool children or negative effects as compared to DIP classrooms (Van Horn, Karlin, Ramey, Aldridge, & Snyder, 2005). Stipek, Feiler, Daniels, and Milburn's study (1995) reported that children in didactic (DIP) classrooms demonstrated higher gains in reading than children in child-initiated (DAP) classrooms along with no differences found in their math achievement. Another study reported that students in high basic skills classes scored higher on tests of math and reading than students in low basic skills classes; a year later, their scores continued to be higher in reading but not in math (Stipek et al., 1998). Cognitive and physical competence and maternal acceptance were not related to DAP instructional practices, and the children in this study's DAP classrooms exhibited more stress behaviors when at work centers and during transition times (Jambunathan, Burts, & L Pierce, 1999).

Taiwanese Culture and Developmentally Appropriate Practice

The focus on the individual, so prevalent in DAP, comes from the influence of the progressive educational reformer Dewey, and developmental theories of six Western scholars, in particular, Piaget, a Swiss genetic epistemologist, Erikson, a German-American psychologist, Vygotsky, a Russian developmental psychologist, Bowlby, a British psychoanalyst, Bronfenbrenner, an American human ecologist, and Gardner, an American developmental psychologist.

The Taiwanese view of child development is more prescriptive in nature. While DAP relies on descriptive theories of child development, the Taiwanese culture is based

on Confucian traditions, prescribing what children should become (Thomas, 2002). Specifically, society expected children to take the adult's lead. Respect for elders has priority over such goals as the development of autonomy described in DAP. Most children were taught not to challenge a teacher's authority. Student just learned from the teacher's teaching, followed their teacher's direction, and rarely asked questions. DAP guidelines encourage teachers to act as facilitators, assisting children in developing skills at their own ability levels. However, in Taiwan, teachers are less concerned with children's abilities and instead focus on children's intentions. Teachers always provided extra assistance for those children who showed an intensive interest in their efforts to learn (Hsue, & Aldridge, 1995). Taiwanese teachers push students for academic success. Usually, in class, teachers will pay the most attention to the students who show the strongest intention to learn (Hsieh, 2004).

By comparing and contrasting the essence of DAP and traditional Taiwanese culture, each educational philosophy expresses itself in unique educational practices (Hsue & Aldridge, 1995). Looked at from the opposite direction, DAP, for example, is rooted in Western theories of child development. Mainstream educational practices in Taiwan, however, are based on Confucianism, the core of traditional Taiwanese culture. In general terms, DAP is based on values of equity and justice, whereas traditional Taiwanese culture emphasizes values of tolerance, benevolence, and consideration. In terms of learning strategies, DAP focuses on children's abilities, developmental levels, play, and successful learning experiences. Traditional Taiwanese culture, on the other hand, stresses children's learning intentions, academic efforts and practices, and the

balance between successful and unsuccessful experiences (Barclay, 1989). Further differences include the fact that while DAP programs ideally require a large learning area in which the children can function, Taiwanese children routinely share a very limited learning space with their peers. Finally, for DAP, teachers are viewed as facilitators, whereas Taiwanese teachers are models of moral behavior. While the differences between these two systems are clearly evident, early childhood education in Taiwan has gradually been changing and becoming more westernized (Lin, 2004). This fact is due to the increasing influence of Western educational views and also Taiwan's changing social structure, including the growth of the economy, changes in family size, and technological advancements (Hsieh, 2004).

Parent Attitudes and Beliefs

Knutsen-Lindauer and Harris (1989) found parents were more likely than teachers to expect pre-kindergarten children to acquire formal and academic skills. To satisfy the demands of the parents for excellence in reading, writing, arithmetic, many private kindergarten programs follow a more traditional approach in both curricula development and teaching methods rather than following an approach more in keeping with the latest findings in child development and early childhood education research.

Knutsen-Lindauer and Harris (1981) compared parental and teacher attitudes. Their findings indicated a disagreement about academic skills. At the kindergarten level, teachers favored independence and curiosity in children, whereas parents placed greater emphasis on acquiring academic skills. In more recent research, Knutsen-Lindauer and

Harris (1989) found parents were more likely than teachers to expect pre-kindergarten children to acquire formal academic skills.

Many parents enter into a child care environment when their children are very young and find that, in infant/toddler years, their focus regarding program quality and content changes over the years of their children's growth and development (Joffe, 1997). Parents who are looking for infant/toddler care are often more concerned with group size, teacher-child ratio, and how much one-on-one attention their children will receive in a group care experience (Moshier, 1997). Parents who choose an NAEYC-accredited program for infants and toddlers might be searching for a program that they know has a higher standard of care based on program accreditation.

Research showed upper socioeconomic status parents reported a good understanding of DAP (Grebe, 1998). Many parents required teachers to use worksheet, lined paper, and graded assignments for kindergarten because parents wanted concrete evidence that their children were learning at school (Roopnarine & Metindogan, 2006).

Two studies (Mueller, 1996; Powell, 1995) have shown parents from minority backgrounds and with less formal education are even more supportive of formal didactic methods of education for young children. The Minnesota State Department of Children, Families and Learning surveyed 700 families and found that lower-income families demonstrated decreased knowledge levels in regard to age-appropriate expectations when compared to upper or middle-income parents (Mueller, 1996).

One potential barrier to parent-teacher collaboration is evidenced by professionals adhering to DAP principles may be at odds with many family members' images of what

are considered appropriate settings and priorities for young children (Powell, 1995). Past research has shown parents as a group were more likely to rate intellectual goals as relatively more important than teachers rated the same practices, and parents rated social skills at a lower degree of importance than teachers rated the social skills (Kean, 1980). Additional research has reported parents tend to want teachers with more formal authoritarian teaching styles that focused on cognitive-oriented methods and teacher-directed instruction (Hill, 1984), and there is some evidence that parents seek out programs that mesh with the family's educational philosophy (Hyson, Hirsh-Pasek, & Rescorla, 1990). When past research has explored differences within parents' beliefs about educational practices, the reports indicated that although some parents hold views that are compatible with DAP, it is believed many parents have views of early childhood education practices that are considered DIP (Holloway, Rambaud, Fuller, & Eggers-Pierola, 1995). It is thought that this variance in parental beliefs may be associated with socioeconomic status, with lower SES correlated to more authoritarian practices (Miller, 1988). Knudsen-Lindauer and Harris (1989) found mothers and fathers consider counting, reading, and writing to be more important skills for children for kindergarten readiness than teachers.

The increase of academic demands in early childhood education caused another consequence: the increasing use of developmental screening tests, readiness tests, and other standardized tests to measure children's learning achievement (Isenberg, 2003). Elkind (1993) argued the inappropriateness in using readiness tests to identify the problem in the child instead of on the match between a child and a school program. The

testing of young children has come under attack because of the dangers of labeling children at an early age and using test scores for determining the placement of children in early childhood programs. The change to more academic emphasis of curriculum also led to many problems in the primary grades and especially kindergarten. Children as young as 5 and 6 are demonstrating signs of stress and increased aggression at a growing rate (Burt, Hart, Charlesworth, & Kirk, 1990).

The research shows most parents agreed with NAEYC guidelines, but they still had some opinions that were not congruent with the NAEYC guidelines (Seefeldt, 2005). For example, in curriculum goals, parents expressed support of the use of workbooks, ditto sheets, flashcards, drill and practice and isolated skill development that are determined inappropriate for 5-year-olds by the NAEYC (Seefeldt). In relations between home and school, parents disagreed with the NAEYC guideline that teachers are responsible for establishing and maintaining frequent contacts with families and wrote comments on the survey instrument indicating that parents, too, share this responsibility (Huffman & Speer, 2000). In evaluation of children, parents did not agree with NAEYC position that reliable, valid instruments for use with young children are extremely rare and feel that curriculum decisions should be determined by the performance of children on standardized tests (Hayes, 1992). Heaston (1991) indicated the effect of educational background on parent perceptions of a developmentally appropriate curriculum was found to be significant. Parents with some college experience rated developmentally appropriate goals, teaching strategies, learning activities, and assessment methods as

more important than did parents with an education background equivalent to or less than a high school degree.

Parents' beliefs regarding their understanding of their children's cognitive development is reflected in their child-rearing attitudes (McGillicuddy-DeLisi, 1985). Research also indicated the parental beliefs not only are reflected in their child-rearing practices but also influence parents' interactions with children and affect the outcomes. It was found that parents who spend more time with their children hold more positive beliefs about child-rearing theory and child-centered outcomes than do parents who spend less time with their children (Laosa, 1982).

Research on parents' beliefs about appropriate practices in early childhood programs indicated low-income and minority parents emphasized school-related skills more than teachers (Holloway, Rambaud, Fuller, & Eggers-Pierola, 1995). It appears that parents of young children were more concerned than teachers about teaching children about academic curricula and less concerned about promoting personality and social development. Holloway and colleagues (1995) found low-income mothers did not view play as a context for learning, although they did perceive it as appropriate for enhancing emotional and physical development.

Hyson, Hirsh-Pasek, and Rescoria (1990) found only one-third of middle-and upper-middle-class mothers endorsed early, formal academic instruction. According to one study (Stipek et al., 1995), parents with less education more strongly endorse didactic methods of instruction for young children than parents with higher education. Two studies have shown parents select early childhood programs that are consistent with their

educational beliefs. In other words, parents who endorse teacher-directed, didactic approaches tend to choose academic early childhood programs for their children. Thus, parents seem to exhibit congruence between their own beliefs and behaviors (Grebe, 1998).

While many parents may have attitudes consistent with DAP, research shows that developmentally inappropriate views continue to inform the education decision-making process for a large portion of parents with preschool children (Holloway et al., 1995). Some evidence suggests that instructing parents in the fundamentals of child development and DAP would be valuable (Harris & Larsen, 1989; Martin, Frede, & Sorrell, 1995).

Parent Attitudes and Beliefs in Taiwan

A review of research of Taiwanese parental attitudes and beliefs about DAP shows a limited amount of literature in this area. A study indicated parental pressure and inadequate space in private early childhood programs both contribute to a curriculum that is not appropriate for young children in Taiwan (Chen, 1988). Taiwanese parents tend to set high standards and have high expectations for their children (Lin, 2004). Research showed parents' high expectations have strongly influenced children's academic performances (Henderson, 1988; Vollmer, 1986).

Most Taiwanese parents still believe an early start for learning academic skills increases chances for future success (Hsieh, 2004). Huntsinger, Jose, and Larson (1998) reported Chinese-American parents preferred to teach their preschool and kindergarten children by formal teaching methods. In addition, Chen (2005) pointed out that

Taiwanese parents with high expectations established their standards and made a greater requirement of their children at an early age which fostered high academic achievement. Parents were happy to see their children starting out with an advantage (Lin & Tsai, 1996). Therefore, parents have encouraged their children to focus on study and hard work. The purpose of this encouragement is to motivate their children to be successful, particularly in school. They communicated their beliefs about the relationship between education and success in life, especially emphasizing on the negative consequences of a weak education (Chao, 1996).

Formal instruction in academic skills is common in early childhood programs in the United States as well as in Taiwan. Instructional methods typically include workbooks, worksheets, and teacher-directed lessons. Parents expected young children to master specifics of skills, including rote counting one-to-ten, discrimination of beginning sounds, and the recognition of letters and numbers (Morado, 1987).

Several cross-cultural studies have focused on immigrant Chinese parents' methods of child rearing, parenting styles, attitudes toward child development, and academic achievement. Some studies have shown Chinese-American parents tended to exhibit an authoritarian parenting style (Chao, 1994). Parents value education and have high expectations for schooling success (Chao, 1996). Also, parents believed outstanding performance in children's academic achievement would bring honor to the family. In reviewing child-rearing practices, Taiwanese parents are more involved in their children's schooling and at home experiences (Huntsinger, Jose, Huntsinger, & Liaw, 2000).

Following the Confucian principle, a learned man is a good man, Taiwanese parents have a high expectation for their children's education. The golden tenet undergirds most parents' attitudes toward their children's education (Feng, 1994). Taiwanese assume and insist that all students should achieve a certain level of education. Stevenson, Lee, Chen, Kato, and Londo (1994) found that most Taiwanese parents believe that while having devoted teachers and supportive parents is certainly important, by far the most important key to academic success lies in the hard work of the students themselves. Morris' (1996) research affirmed this notion as it indicated that the majority of Taiwanese believed that all students can succeed with hard work. With such an attitude, Taiwanese parents routinely encourage their children to work hard—as that surely it is the key to success in Taiwan's intensely competitive educational environment (Ho & Crookall, 1995). Taiwanese parents are also more likely to favor traditional, Confucius-based teaching (Yang, 1997). They believed in some developmentally inappropriate practices. Different from the previous study, both Taiwanese parents and teachers believed in DAP for young children in early childhood classrooms (Chang, 2003).

Higher SES mothers more often placed their children in private schools than public schools in Taiwan. Lower SES parents chose public schools for their children because tuition was less expensive than private schools rather than because parents agreed with public schools' child-centered curriculum (Chen, 2005; Liou, 2006).

CHAPTER III

METHODOLOGY

This chapter reflects the procedures employed to examine Taiwanese parents' beliefs about developmentally appropriate practice (DAP) in early childhood programs for children ages 3-to-6 year-old in private and public nursery schools and kindergartens. The primary objectives of this research were to help early childhood professionals, early childhood educators, and government obtain a better understanding of Taiwanese parents' beliefs about DAP. The results are useful in creating policies and best practices related to the education of young children. Teachers may use these results to guide their work with parents. The chapter includes the following sections: (a) Participants; (b) Instrumentation; (c) Collection of Data; and (d) Data Analysis

Participants

The participants in this research were 600 paired parents of 3-to-6 year-old children enrolled at public and private nursery schools and kindergartens in Taiwan. Kindergartens and preschools were referred to the researcher by friends. The researcher distributed questionnaires to 30 schools. Eight hundred (66.6%) paired parents (mothers and fathers) returned the questionnaires to become the sample for this research. For survey research, the return rate of over 60% is sound (Babbie, 2004). However including the missing data, the sample size of this study was 758 paired parents (63%).

Instrumentation

The researcher translated and adjusted an instrument, Teachers Beliefs Scale (TBS) (Burts et al., 2000), to collect information from teachers regarding beliefs about DAP in early childhood programs. Kim (2005) stated the TBS has three factors: Developmentally Appropriate Practices Beliefs (DAPB) with 17 items (items 3, 4, 5, 8, 9, 12, 13, 16, 18, 21, 22, 23, 25, 26, 28, 29, and 33); Beliefs on Developmentally Inappropriate Beliefs (DIPB) with 15 items (items 2, 7, 10, 11, 14, 15, 17, 19, 20, 24, 31, 29, 40, 41, and 42); and attitudes about Family, Culture, and Inclusion (FCI) with 9 items (items 6, 27, 30, 32, 34, 35, 36, 37, and 38). In Kim's sample of 375 U. S. teachers, the internal consistency reliability coefficients in Cronbach alpha of these three factors were .85, .82, and .81. The same factorial structure was used in the present study. Kim reported item 43 did not load on any factor; therefore, it was excluded in the present study as well. The researcher also consulted with Dr. Hoot, who devised another instrument to examine beliefs about DAP (personal communication, September 25, 2006). He recommended that the researcher contact Dr. Charlesworth. The researcher consulted with Dr. Charlesworth, one of the authors who devised the Teacher Beliefs Scale (1993) (personal communication, September 25, 2006). Dr. Charlesworth thought the scale would work for parents. The researcher also consulted with Drs. Burts and Buchanan, two of the authors who revised the TBS (2005) (personal communication, October 25, 2006). Both of them thought it would be appropriate for parents, too. The researcher confirmed with Dr. Kim who examined the TBS (2005) (personal communication, October 30, 2006). The content of the Parent Beliefs Scale (PBS) is based on position

statements regarding DAP and DIP which the National Association for the Education of Young Children (NAEYC) (Bredekamp & Copple, 1997) established.

The parents' questionnaire for this study contained two sections. In the first section, respondents provided demographic information including questions about parent's marriage, sex, highest level of education completed, occupation, and children's background. The second section consisted of a 43-item Parent Beliefs Scale (PBS). There were 43 items on the PBS (one ranking question, 27 items of DAPB, and 15 items of DIPB). The first question asked parents to rate the relative importance of six influences (parents, school system policy, principal/director, teacher, state regulations, and other teachers) on their children. The remaining 42 questions of the PBS examined parents' beliefs about early childhood education programs. Each item was rated using a five-point Likert-type scale with the following choices: (1) Not important at all, (2) Not important, (3) Fairly important, (4) Very Important, and (5) Extremely important.

The researcher developed the demographic survey part. It included parents' sex, educational level, and occupation. In quantifying the social economic status (SES), the socioeconomic status investigation in the study is based on Hollingshead's (1957) two-factor index of social position. The socioeconomic status index divided parents' occupational level and educational level into five ranks. The occupation index multiplied by 7 and the education index multiplied by 4 are combined to get the socioeconomic status indices. A parent's highest education or job level in a family was used to compute the family SES. The occupation index, education index, and socioeconomic status index are described as follows:

According to the classification of Hollingshead (1957), and the occupational condition in Taiwan, the occupation index is divided into five ranks:

- 1 Semi-technical and non-technical workers: such as housewife, vendor, fisherman, seaman, waiter, servant or unemployed.
- 2 Technical worker: such as electrician, salesman, driver, tailor, beauty-specialist, barber, chef, or postman.
- 3 Semi-professional worker and public servant: such as technician, cashier, general public servant, policeman, elementary school teacher, or low-level official.
- 4 Professional and official: such as accountant, judge, lawyer, engineer, secondary school teacher, middle-level administrator, principal, and owner or manager of company.
- 5 High-level professional and administrator: such as doctor, legislator, congressperson, college professor, military general, or president of a large enterprise.

According to the classification of Hollingshead, and the educational condition in Taiwan, the education index is divided into five ranks:

- 1 Uneducated.
- 2 Graduated from elementary school.
- 3 Graduated from middle school, high school or vocational high school.
- 4 Graduated from a university or college.
- 5 Graduated from graduate school.

In Taiwan, according to Hollingshead (1957), includes the two-factor index of social position and the condition in Taiwan; the occupation index multiplied by 7 and education index multiplied by 4 are combined to obtain a socioeconomic status indices. The socioeconomic statuses are divided into 5 ranks. The method for determining the socioeconomic status is shown in Table 1. For the purposes of analyses in the present sample, participants were divided as low and high SES based on having a score below or equal to 40 or greater than 40.

Table 1

Socioeconomic Status Table

Occupation rank	Occupation index	Education rank	Education index	SES indices	SES rank
I	1	I	1	$1 \times 7 + 1 \times 4 =$	I (11-18) *
II	2	II	2	$2 \times 7 + 2 \times 4 =$	II (19-29) *
III	3	III	3	$3 \times 7 + 3 \times 4 =$	III (30-40) **
IV	4	IV	4	$4 \times 7 + 4 \times 4 =$	IV (41-51) **
V	5	V	5	$5 \times 7 + 5 \times 4 =$	V (52-55) **

Note: SES = Socioeconomic Status

* = Low SES

** = High SES

Hollingshead (1957)

Translation of the Questionnaires

Because the participants were all Taiwanese, the investigator translated the Parents Beliefs Questionnaire into Chinese in order to use it for this research. The translation rules of Bracken and Fouad (1987) were followed. Some words of the Chinese version were revised to adjust to the culture of Taiwan. In consultation with Taiwanese early childhood professionals, the researcher resolved all disagreements with completion of a back-translation. The researcher pilot tested the instrument with 10 Taiwanese parents who were not part of the sample. Their knowledge about Taiwanese early childhood program improved the content validity of the Chinese version survey. They also provided some suggestions for adjusting to the instrument.

Collection of Data

The University of North Texas Internal Review Board approved this study for the protection of human subjects. Kindergartens and preschools were referred to the researcher by friends. The researcher visited 30 schools and received permission from all of them to distribute the questionnaires to parents. Parents received the questionnaires in one envelope: a blue-colored one for fathers and a pink one for mothers. Parents were asked to complete the questionnaires independently. Children delivered the envelopes to their parents and returned completed envelopes to their teachers. The researcher collected the questionnaires from the teachers.

Assumptions

A panel of experts examined the validity and assumed appropriateness of the instrument. Both were assumed to be acceptable. The instrument's internal consistency

reliability coefficients in Cronbach's alpha and the inter-factor correlations provided support of the construct validity and reliability of the instrument with the sample.

Basically, this study relied on the following major assumptions: (a) the questionnaire translated to Chinese from English through the forward-and-backward translation process retained conceptual validity; (b) the questionnaire had acceptable construct validity with this sample; (c) parents could understand and answer the questions on the questionnaires regarding their beliefs about early childhood education program; and (d) each participant answered the questionnaire independently.

Data Screening

The researcher analyzed the data using the statistical software SPSS for Windows. Participants were removed from analyses if they did not complete more than 50% of the survey or did not have a match (i.e. mothers without matching fathers). The final sample contained 379 usable pairs of mothers and fathers.

Data Analysis Strategies

The unit of the analysis for this study was parents who had a child aged 3-to-6 years attending a nursery school or kindergarten program. The researcher used descriptive statistics to explore research question one. Question two was analyzed using paired t-tests. Questions 3 and 4 were analyzed using a repeated measures MANOVA to examine the relationships between parents' SES and the parents' beliefs about DAP. Also, differences in the parents' beliefs about DAP in early childhood programs and children's enrollments into public and private programs were explained. A multiple regression of

analyses was used to predict what factors are more important relative to parents' beliefs about DAP in question 5.

CHAPTER IV

RESULTS

This chapter presents the findings of parents' beliefs about developmentally appropriate practice (DAP) in early childhood programs for children ages 3-to-6 years in private and public nursery school and kindergarten levels in Taiwan. The following sections are included: (a) Demographics; (b) Psychometric Properties; and (c) Primary Analysis.

Demographics

The current study included 379 matched parent pairs. As shown in Table 2, the average socioeconomic status (SES) for mothers was 32.88 ($SD = 9.68$) and ranged from 15 to 58. The average SES for fathers was higher at 37.69 ($SD = 9.12$) and ranged from 19 to 55. The education level for mothers was, ($M = 14.39$, $SD = 2.55$) and fathers ($M = 15.12$, $SD = 3.17$). A majority of participants indicated that they had at least a college education (59.9%), and just over 30% reported that their highest education level was middle school, high school, or vocational high school (31.4%; see Table 3). Some, 8.4%, indicated that they had completed graduate school, and 0.3% reported that their highest education level was elementary school. In terms of occupation, the majority of respondents were either semi-professional workers and public servants (43%) or semi-technical and non-technical workers (29%). Smaller proportions of the respondents indicated that they were professional and official workers (13.2%), technical workers

(10.3%), high-level professionals and administrators (3.7%) or 0.8% held other occupations.

Table 2

Descriptives on SES, Age, and Education Level of Mother and Father

	<i>n</i>	Mean	<i>SD</i>	Min	Max
SES					
Mother	379	32.88	9.68	15	58
Father	379	37.69	9.12	19	55
Age					
Mother	376	35.26	4.24	24	46
Father	378	37.76	4.71	20	51
Education Level					
Mother	379	14.39	2.55	6	26
Father	379	15.12	3.17	6	30

Child Information

The majority of respondents reported that they had two children (62.3%), approximately one-quarter reported that they had one child (25.9%), and 11.9% had three children (See Table 4). As shown in Table 5, the average age of the first child was approximately 7 years ($M = 6.92$, $SD = 2.61$); the average age of the second child was approximately 5 years ($M = 4.89$, $SD = 2.61$); and the average age of the third child was about 5 years ($M = 4.70$, $SD = 2.02$). Slightly more than half of the respondents reported

having attended a public school (55.7%), and slightly less than half of the respondents reported a private school (44.3%). Most of the respondents reported an SES rank of 3 (38.8%) or 4 (38%), with less than 20% reporting an SES rank of 2 (19.3%) and only 4% reporting an SES rank of 5. Just over half of the respondents were classified as having a low SES (58%), and 42% were classified as having a high SES.

Table 3

*Frequency and Percentages of Highest Education Completed, Occupation
Between Mother and Father*

	<u>Mothers</u>		<u>Fathers</u>	
	<i>n</i>	%	<i>n</i>	%
Education				
Elementary	1	.3	1	.3
Middle, high, or vocational high schools	119	31.4	96	25.3
University or college	227	59.9	207	54.6
Graduate school	32	8.4	75	19.8
Occupation				
Semi-technical and non-technical workers	110	29.0	26	6.9
Technical worker	39	10.3	79	20.8
Semi-professional worker and public servant	163	43.0	123	32.5
Professional and official	50	13.2	120	31.7
High-level professional and administrator	14	3.7	31	8.2
Other	3	.8	0	.0

Note: Frequencies not adding to 379 and percents not totaling 100% reflect missing data.

Table 4

Frequencies and Percentages of Family Variables –Number of Children, School Type, Family Type, SES Rank, and Low/High SES

	<i>n</i>	<i>%</i>
Number of children		
1	98	25.9
2	236	62.3
3	45	11.8
School type		
Public	209	55.7
Private	168	44.3
SES index score		
I	–	–
II	73	19.3
III	147	38.7
IV	144	38.0
V	15	4.0
Low high SES index		
Low SES	220	58.0
High SES	159	42.0

Note: Frequencies not adding to 379 and percents not totaling 100% reflect missing data.
SES = Socioeconomic status

Table 5

Descriptives of Child's Age

	<i>n</i>	Mean	<i>SD</i>
Age of first child	369	6.92	2.61
Age of second child	265	4.89	2.61
Age of third child	40	4.70	2.02

Participants were asked to rank the amount of influence they believed parents, school system policy, principal/director, themselves, state regulations, and teachers had on the way teachers plan and implement instruction after considering children's needs. As shown in Table 6, teacher (30.7%), and parents were the most commonly chosen first choice (27.2%) of influences of implementing teacher's instruction, followed by school system policy (17.0%). Second place influences were teachers (31.3%) and school system policy (23.2%). Third place influences were the principal/director (32.2%) and the school system policy (25.6%). Fourth place influences were also the principal/director (20.6%) and school system policy (18.9%). Fifth place influences were state regulations (25.8%) and teachers (22.4%). Sixth place influences were also state regulations (32.6%) and teachers (47.0%).

Table 6

Frequencies and Percentages of Ranking of Influences

	<u>First</u>		<u>Second</u>		<u>Third</u>		<u>Fourth</u>		<u>Fifth</u>		<u>Sixth</u>	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Parents	101	27.2	57	15.4	50	13.5	69	18.6	58	15.6	36	9.7
School system policy	63	17.0	86	23.2	95	25.6	70	18.9	49	13.2	8	2.2
Principal/Director	38	10.3	69	18.7	119	32.2	76	20.6	51	13.8	16	4.3
Teacher	114	30.7	116	31.3	51	13.7	54	14.6	26	7.0	10	2.7
State regulations	54	14.7	31	8.4	21	5.7	47	12.8	95	25.8	120	32.6
Other teachers	13	3.5	19	5.1	35	9.5	46	12.4	83	22.4	174	47.0

Psychometric Properties

As part of the survey, respondents were asked to indicate the level of importance of various education statements using a Likert scale from 1 (not at all important) to 5 (extremely important). These items were grouped into three different scales: developmentally appropriate practice beliefs (DAPB), developmentally inappropriate practice beliefs (DIPB), and family, culture, and inclusion beliefs (FCI). Reliability analysis was conducted on the items that measured DAPB (17 items), DIPB (15 items), and FCI (9 items). All three scales were determined to have strong reliability based on Cronbach's alpha, which ranged from 0.81 to 0.87 (see Table 7). The lowest alpha scores

were for the mothers' scores of DAPB (alpha = 0.81), and FCI (alpha = 0.81), and the fathers' scores of FCI (alpha = 0.81). The fathers' scores for DAPB (alpha = 0.85) and DIPB (alpha = 0.86) demonstrated slightly stronger reliability. The largest alpha level was for the mothers' scores of DAPB (alpha = 0.87).

Table 7

Reliability Scores for DAPB, DIPB, and FCI

	<i>N</i>	Number of items	Mother	Father
DAPB	379	17	.81	.85
DIPB	379	15	.87	.86
FCI	379	9	.81	.81

Note: DAPB = Developmentally Appropriate Practice Beliefs, DIPB = Developmentally Inappropriate Practice Beliefs, FCI = Family, Culture, and Inclusion Beliefs.

The parent means for the three factors, including DAPB, DIPB, and FCI, are displayed in Table 8. The means between parents were fairly similar; however, there were some differences between the three factor scores. The means for DAPB were the highest ($M_{mother} = 4.05$, $M_{father} = 4.02$) and the means for DIPB were the lowest ($M_{mother} = 3.09$, $M_{father} = 3.20$). The ranges for DAPB, DIPB, and FCI indicated that variability existed in participants' beliefs.

Table 8

Descriptives of Mother and Father Factor Scores for DAPB, DIPB, and FCI

	<i>n</i>	Mean	<i>SD</i>	Min	Max
DAPB					
Mother	373	4.05	.45	2.65	4.94
Father	373	4.02	.47	2.24	5.00
DIPB					
Mother	373	3.09	.64	1.60	4.73
Father	373	4.02	.63	1.00	5.00
FCI					
Mother	373	3.88	.58	2.22	5.00
Father	373	3.84	.57	2.11	5.00

Note: Means with a sample size less than 379 reflect missing data. DAPB = Developmentally Appropriate Practice Beliefs, DIPB = Developmentally Inappropriate Practice Beliefs, FCI = Family, Culture, and Inclusion Beliefs.

The mother and father means for the individual items included in the DAPB section of the question mean are presented in Table 9. All of the items were rated, on average, as at least fairly important (all means > 3.00) by all parents. The greatest overall means for both mothers and fathers were regarding “teacher-child interactions to help develop children’s self-esteem and positive feelings toward learning,” which was rated as very important ($M_{mother} = 4.61$, $M_{father} = 4.54$). Again, the range and standard deviation for each of the belief items was wide for both mothers and fathers indicating that variability existed in participants’ beliefs on the DAPB items.

Table 9

Descriptives of Items Included in DAPB Items by Mother and Father Respondents

DAPB Items	<i>n</i>	Mean	<i>SD</i>	Min	Max
3. To plan and evaluate the curriculum, teacher observation ...					
Mother	373	4.32	.71	2	5
Father	373	4.25	.73	2	5
4. It is ____ for activities to be responsive to individual children's interests.					
Mother	371	3.93	.90	1	5
Father	374	3.98	.90	1	5
5. responsive to individual differences in children's levels of development.					
Mother	371	4.04	.89	1	5
Father	375	4.04	.86	2	5
8. ... teacher-child interactions to help develop children's self esteem					
Mother	373	4.61	.66	1	5
Father	372	4.54	.63	2	5
9. ... teachers to provide opportunities for children to select many of their own activities.					
Mother	373	4.09	.82	2	5
Father	374	3.99	.89	1	5
12. ... teacher to provide a variety of learning areas with concrete materials					
Mother	373	4.18	.89	1	5
Father	373	4.02	.83	2	5
13. ... children to create their own learning activities					
Mother	373	4.39	.77	2	5
Father	374	4.33	.79	1	5
16. A structured reading or pre-reading program is ____ for age 3-6 years-old children.					
Mother	372	4.17	.89	1	5
Father	374	4.09	.92	1	5
18. ... teacher ...facilitating children's involvement with materials, activities, and peers.					
Mother	372	4.59	.64	2	5
Father	373	4.51	.69	1	5

Note: Means with a sample size less than 379 reflect missing data.

Table 9, continued

Descriptives of Items Included in DAPB Items by Mother and Father Respondents

DAPB Items	<i>n</i>	Mean	<i>SD</i>	Min	Max
21. ...teachers develop an individualized behavior plan for ...severe behavior problems.					
Mother	373	4.14	.87	1	5
Father	374	4.06	.80	2	5
22. ... teachers to allocate ... time for children to engage in play and projects.					
Mother	372	3.78	.90	1	5
Father	373	3.81	.86	1	5
23. It is ____ for children to write by inventing their own vocabulary.					
Mother	372	3.37	1.20	1	5
Father	374	3.63	1.08	1	5
25. ...teachers to read stories daily to children, individually and/or on a group basis.					
Mother	373	3.82	.96	1	5
Father	374	3.64	.91	2	5
26. ... children to dictate stories to their teacher.					
Mother	372	3.68	.89	1	5
Father	372	3.67	.89	1	5
28. ... children to see and use functional print ...and environmental print					
Mother	371	3.68	1.05	1	5
Father	374	3.76	.94	1	5
29. ... provide many daily opportunities for children to developing social ... with peers in the classroom.					
Mother	373	4.53	.67	2	5
Father	373	4.42	.72	2	5
33. ... teachers to use strategies ... to be used to help guide children's behavior.					
Mother	369	3.48	1.13	1	5
Father	374	3.59	1.09	1	5

Note: Means with a sample size less than 379 reflect missing data.

Parents' mean responses for the individual items included in the DIPB questions are presented in Table 10. The greatest overall means for both mothers and fathers were regarding "It is ____ that outdoor time have planned activities." which was rated as very important ($M_{mother} = 4.17$, $M_{father} = 4.07$). Again, the range and standard deviation for each of the belief items was wide for both mothers and fathers indicating that variability existed in participants' beliefs on the DIPB items.

The parent's mean responses for the individual items included in the FCI questions are presented in Table 11. Each of these nine items was rated by both parents as at least fairly important (all means > 3.00). The most important item, as rated by both mothers and fathers, was for teachers to establish a collaborative partnership/relationship with parents of all children, including parents of children with special needs and from different cultural groups ($M_{mother} = 4.36$, $M_{father} = 4.24$). A second very important item was that teachers engage in on-going professional development in early childhood education, which was rated as very important by both mothers ($M = 4.30$) and fathers ($M = 4.20$). Again, the range and standard deviation for each of the belief items was wide for both mothers and fathers, indicating that variability existed in participants' beliefs on the DIPB items.

Table 10

Descriptives of Items Included in DIPB Items by Mother and Father Respondents

DIPB Items	<i>n</i>	Mean	<i>SD</i>	Min	Max
2. As an evaluation of children's progress, readiness or achievement tests are_____.					
Mother	373	3.76	.97	1	5
Father	373	3.71	1.06	1	5
7. ... curriculum area be taught as separate subjects ... at separate times like elementary .					
Mother	373	3.16	1.09	1	5
Father	372	3.28	1.08	1	5
10. It is _____ to use the same approach for reading and writing instruction.					
Mother	371	2.73	1.11	1	5
Father	372	2.83	1.07	1	5
11. Instruction in letter and word recognition is _____ in preschool.					
Mother	373	3.35	1.15	1	5
Father	372	3.37	1.18	1	5
14. It is _____ for children to work individually at desks or tables most of the time.					
Mother	373	3.13	1.05	1	5
Father	374	3.05	.95	1	5
15. Workbooks are _____ in children's classroom.					
Mother	372	2.91	1.13	1	5
Father	371	2.99	1.09	1	5
17. ... teacher to talk to whole group and for children to do same things at same time.					
Mother	370	3.83	.97	1	5
Father	374	3.94	.94	1	5
19. ... teachers to use treats, stickers, and/or stars to get children to do activities					
Mother	373	3.26	1.08	1	5
Father	372	3.40	1.09	1	5

Note: Means with a sample size less than 379 reflect missing data.

Table 10, continued

Descriptives of Items included in DIPB Items by Mother and Father Respondents

DIPB	<i>n</i>	Mean	<i>SD</i>	Min	Max
20...teachers to regularly use punishments and/or reprimands when children aren't participating.					
Mother	370	1.87	.95	1	5
Father	372	2.20	1.15	1	5
24. It is ____ for children to color within pre-drawn forms.					
Mother	371	2.79	1.07	1	5
Father	373	3.21	1.05	1	5
31. It is ____ that outdoor time have planned activities.					
Mother	372	4.17	.87	1	5
Father	374	4.07	.83	1	5
39. It is ____ that teachers maintain a quiet environment.					
Mother	373	3.29	1.05	1	5
Father	373	3.37	1.07	1	5
40. It is ____ that teachers provide the same curriculum and environment for each group of children that comes through the program.					
Mother	372	2.98	1.20	1	5
Father	373	3.20	1.09	1	5
41. It is ____for teachers to focus on teaching children isolated skills by using repetition and recitation (e.g., reciting poems).					
Mother	371	3.15	1.20	1	5
Father	374	3.20	1.24	1	5
42. It is ____for teachers to follow a prescribed curriculum plan without being distracted by children's interests or current circumstances.					
Mother	373	2.03	1.08	1	5
Father	374	2.26	1.12	1	5

Note: Means with a sample size less than 379 reflect missing data.

Table 11

Descriptives of Individual Items in FCI Items by Mother and Father Respondents

FCI Items	<i>n</i>	Mean	<i>SD</i>	Min	Max
6. It is ____ for activities to be responsive to the cultural diversity of students.					
Mother	371	3.49	.92	1	5
Father	373	3.43	.98	1	5
27. ... engage in on-going professional development in early childhood education					
Mother	372	4.30	.82	2	5
Father	374	4.20	.87	1	5
30. ... materials in classroom include people of different races, ages, abilities and genders					
Mother	373	4.12	.89	2	5
Father	373	3.98	.93	1	5
32. ... parents/guardians to be involved in ways that are comfortable for them.					
Mother	372	3.36	1.00	1	5
Father	372	3.35	.94	1	5
34.... integrate each child's home culture and language into curriculum throughout year.					
Mother	372	3.31	.95	1	5
Father	373	3.41	.98	1	5
35. ... incorporate parent's knowledge about their children for assessment, evaluation...					
Mother	372	4.03	.92	1	5
Father	374	4.02	.81	1	5
36. ... establish a collaborative partnership/relationship with parents of all children...					
Mother	372	4.36	.79	1	5
Father	374	4.24	.74	2	5
37. ... classroom teacher to modify, ... learning experiences for child with special needs					
Mother	373	4.01	.84	2	5
Father	374	3.99	.84	1	5
38. ... services be provided to children with special needs in the regular classroom ...					
Mother	371	3.89	.91	1	5
Father	374	3.92	.83	2	5

Note: Means with a sample size less than 379 reflect missing data.

Parent Factor Scores

Pearson's product moment correlations were conducted to examine the relationship between parents' responses to DAPB, DIPB, and FCI questions (see Table 12). All but two of the relationships were significant. Mothers' DAPB were positively correlated with fathers' DAPB, $r(367) = .379, p < .001$; fathers' DIPB, $r(367) = .180, p < .001$, and fathers' FCI, $r(367) = .270, p < .001$. Mothers' DIPB were positively correlated with fathers' DAPB, $r(367) = .143, p < .01$ and fathers' DIPB, $r(367) = .567, p < .001$; finally, mothers' FCI were positively correlated with fathers' DAPB, $r(367) = .254, p < .001$ and fathers' FCI, $r(367) = .259, p < .001$.

Table 12

Pearson's Product Moment Correlations Between the Mothers' and Fathers' Beliefs

Mother	<u>Father</u>		
	DAPB	DIPB	FCI
DAPB	.379**	.180**	.270**
DIPB	.143*	.597**	.057
FCI	.254**	.101	.259**

Note: * $p < 0.01$; ** $p < 0.001$.

DAPB = Developmentally Appropriate Practice Beliefs, DIPB = Developmentally Inappropriate Practice Beliefs, FCI = Family, Culture, and Inclusion Beliefs.

Primary Analysis

The primary analysis sought to determine the relationships between mothers' and fathers' scores on DAPB, DIPB, and FCI. Therefore, a series of analyses were conducted, including correlation analysis and paired t-tests, in order to model the similarities and differences between parent scores. In addition, a series of repeated measure MANOVAs was conducted to determine the relative impact of parent gender, school type, and SES on the scores. These analyses also helped to determine if there were differences between the three different beliefs. Finally, a series of multiple regression models was conducted to model the predictive nature of various items on the factor scores for DAPB, DIPB, and FCI.

Paired t-tests were conducted on the three beliefs to compare mothers' and fathers' scores (see Table 13). The test comparing parents on DAPB failed to reveal a significant difference for mother and father ratings, $t(369) = 1.10, p = .237$. Similarly, there were no significant differences between parents on FCI ratings, $t(369) = 1.04, p = .298$. There were, however, significant differences between parents' DIPB ratings, $t(369) = -3.76, p < .001$. Fathers rated DIPB as more important ($M = 3.20$) than mothers ($M = 3.10$).

Pearson's product moment correlations were conducted to examine the relationships between ratings of DAPB, DIPB, and FCI with mother SES and father SES (see Table 14). There were significant negative correlations between mother SES and DIPB as rated by mothers, $r(371) = -.248, p < .001$ and DIPB as rated by fathers, $r(371) = -.144, p < .001$. In addition, there were significant negative correlations between

fathers' SES and DIPB as rated by mothers, $r(371) = -.374, p < .001$ and DIPB as rated by fathers, $r(371) = -.320, p < .001$. These findings indicate that higher parents' SES was associated with lower scores on DIPB as rated by both parents.

Table 13

Paired t-test of Mother and Father Scores on DAPB, DIPB, and FCI

	<i>N</i>	Mean	<i>SD</i>	<i>t</i>	<i>p</i>
DAPB				1.10	.273
Mother	369	4.05	.45		
Father	369	4.02	.48		
DIPB				-3.76	< .001
Mother	369	3.10	.64		
Father	369	3.20	.63		
FCI				1.04	.298
Mother	369	3.88	.58		
Father	369	3.84	.57		

Note: Means with a sample size less than 379 reflect missing data. DAPB = Developmentally Appropriate Practice Beliefs, DIPB = Developmentally Inappropriate Practice Beliefs, FCI = Family, Culture, and Inclusion Beliefs.

There was also a significant positive correlation between mothers' SES and mothers' FCI, $r(371) = .136, p < .001$. Similarly, there was a significant positive correlation between fathers' SES and mothers' FCI, $r(371) = .148, p < .001$. These findings indicate that higher parent SES was associated with higher FCI scores as rated by mothers. Finally, there was also a significant relationship between fathers' SES and

DAPB as rated by mothers, $r(371) = .140, p < .001$, indicating that higher fathers' SES was associated with higher DAPB scores as rated by mothers (See Table 14).

Table 14

Pearson's Product Moment Correlations Between SES and the Factor Scores by Mothers and Fathers

	Mother SES	Father SES
DAPB		
Mother	0.060	0.140**
Father	-0.007	0.074
DIPB		
Mother	-0.248**	-0.374**
Father	-0.144**	-0.320**
FCI		
Mother	0.136**	0.148**
Father	0.016	0.021

Note: ** $p < 0.001$. DAPB = Developmentally Appropriate Practice Beliefs, DIPB = Developmentally Inappropriate Practice Beliefs, FCI = Family, Culture, and Inclusion Beliefs.

Socioeconomic Status

A measure (DAPB vs. DIPB vs. FCI) x parent (father vs. mother) x SES (low vs. high) repeated measures MANOVA was conducted on the beliefs scores. Means and standard deviations are displayed in Table 15. There was a significant main effect for SES, $F(1, 367) = 5.01, p < .05$. Across the three beliefs, participants with low SES scores

($M = 3.72$) were significantly higher than participants with high SES scores ($M = 3.63$). The results also revealed a significant within subjects main effect for measure, $F(1.42, 519.93) = 746.91, p < .001$. Pairwise comparisons revealed that participants' scores for DAPB ($M = 4.04$) were significantly higher than scores for DIPB ($M = 3.12$) and FCI ($M = 3.86$).

Table 15

Descriptives of Factor Scores by Mother and Father and Low Versus High SES

	<u>Low SES</u>		<u>High SES</u>	
	Mean	SD	Mean	SD
DAPB				
Mother	3.99	.47	4.12	.42
Father	4.00	.49	4.04	.46
DIPB				
Mother	3.28	.63	2.83	.55
Father	3.36	.64	2.99	.56
FCI				
Mother	3.81	.59	3.97	.55
Father	3.85	.57	3.82	.56

Note: Means are from a measure (DAPB vs. DIPB vs. FCI) x parent (father vs. mother) x SES (low vs. high) repeated measures MANOVA. Significant main effect for SES, $F(1, 367) = 5.01, p < .05$. Significant main effect for measure, $F(1.42, 519.93) = 746.91, p < .001$. Significant interaction effect for measure x SES, $F(1.42, 519.93) = 61.09, p < .001$. Significant interaction for measure x parent, $F(2, 734) = 17.69, p < .001$. Significant three-way interaction for measure x parents x SES, $F(1.74, 639.22) = 7.96, p < .01$. DAPB = Developmentally Appropriate Practice Beliefs, DIPB = Developmentally Inappropriate Practice Beliefs, FCI = Family, Culture, and Inclusion Beliefs. High SES= high socioeconomic status. Low SES= low socioeconomic status.

There was a significant interaction effect for measure x SES, $F(1.42, 519.93) = 61.09, p < .001$. Participants' scores for DAPB were similar for participants with low SES ($M = 4.00$) and participants with high SES ($M = 4.08$). Likewise, participants' scores for FCI were similar for participants with low SES ($M = 3.83$) and participants with high SES ($M = 3.89$). Scores for DIPB, however, were significantly less than both DAPB and FCI for both participants with low and high SES. In addition, the DIPB scores for participants with low SES ($M = 3.32$) were higher than the DIPB scores for participants with high SES ($M = 2.91$).

The interaction effect for measure x parent was significant, $F(2, 734) = 17.69, p < .001$. Scores for DAPB were similar for both mothers ($M = 4.06$) and fathers ($M = 4.02$). Similarly, scores for FCI were also similar for both mothers ($M = 3.89$) and fathers ($M = 3.84$). Scores for DIPB, however, were lower than the DAPB and FCI scores for both parents. In addition, DIPB scores for mothers were lower ($M = 3.06$) than the DIPB scores for fathers ($M = 3.17$).

The three-way interaction effect for measure x parents x SES was also significant, $F(1.74, 639.22) = 7.96, p < .01$. Low SES mothers' scores for DAPB ($M = 3.99$) were slightly lower than high SES mothers' scores for DAPB ($M = 4.12$). A similar pattern was observed for FCI, where low SES mothers' FCI scores were slightly lower ($M = 3.82$) than high SES mothers' FCI scores ($M = 3.97$). DIPB scores for mothers, however, were lower than both the DAPB and FCI scores. In addition, low SES mothers' scores for DIPB were higher ($M = 3.28$) than high SES mothers' scores for DIPB ($M = 2.83$). The fathers' scores revealed a somewhat similar pattern across measure and SES. Low SES

fathers' scores for DAPB ($M = 4.00$) were nearly equal to high SES fathers' scores for DAPB ($M = 4.04$). A similar pattern was observed for FCI, where low SES fathers' FCI scores ($M = 3.85$) were nearly equal to high SES father FCI scores ($M = 3.82$). DIPB scores for fathers, however, were lower than both the DAPB and FCI scores. In addition, low SES fathers' scores for DIPB were higher ($M = 3.36$) than high SES fathers' scores for DIPB ($M = 2.99$) (See Table 15).

School Type

A measure (DAPB vs. DIPB vs. FCI) x parents (father vs. mother) x school type (public vs. private) repeated measures MANOVA was conducted on the belief scores. The means and standard deviations are presented in Table 16. There was a significant main effect of school type, $F(1, 365) = 4.38, p < .05$. Parents with children in public schools had higher scores ($M = 3.72$) than parents with children in private schools ($M = 3.63$). There was also a significant within subjects main effect for measure, $F(1.41, 512.88) = 688.33, p < .001$. Parents' scores for DAPB ($M = 4.03$) were significantly higher than both scores for DIPB ($M = 3.13$) and FCI ($M = 3.86$).

The interaction effect for measure x school type was also significant, $F(1.41, 512.88) = 36.21, p < .001$. Parents' scores for DAPB were similar for parents with children in both public ($M = 4.03$) and parents with children in private schools ($M = 4.04$). Parents' scores for DIPB, however, differed by school type; parents sending children to public schools had higher scores ($M = 3.29$) than parents with children in private schools ($M = 2.96$) (related to DIPB). Finally, scores for FCI were somewhat similar, with

parents sending children to public schools scoring somewhat lower ($M = 3.82$) than parents with children in private schools ($M = 3.91$) (See Table 16).

Table 16

Descriptives of Factor Scores by Mother and Father and Public Versus Private School

	<u>Public</u>			<u>Private</u>		
	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>
DAPB						
Mother	208	4.03	.48	159	4.08	.42
Father	208	4.04	.50	159	4.00	.44
DIPB						
Mother	208	3.26	.60	159	2.88	.62
Father	208	3.33	.60	159	3.04	.63
FCI						
Mother	208	3.82	.58	159	3.95	.58
Father	208	3.82	.60	159	3.86	.52

Note: Means are from a measure (DAPB vs. DIPB vs. FCI) x parent (father vs. mother) x school type (public vs. private) repeated measures MANOVA. DAPB = Developmentally Appropriate Practice Beliefs, DIPB = Developmentally Inappropriate Practice Beliefs, FCI = Family, Culture, and Inclusion Beliefs. Significant main effect for school type, $F(1, 365) = 4.38, p < .05$. Significant main effect for measure, $F(1.41, 512.88) = 688.33, p < .001$. Significant interaction effect for measure x school type, $F(1.41, 512.88) = 36.21, p < .001$. Significant interaction for measure x parent, $F(1.73, 632.49) = 15.49, p < .001$. Significant three-way interaction for measure x parents x school type, $F(1.73, 632.49) = 4.77, p < .05$.

There was a significant interaction effect for belief measures x parents, $F(1.73, 632.49) = 15.49, p < .001$. Scores for DAPB were similar for mothers ($M = 4.05$) and fathers ($M = 4.02$). Likewise, scores for FCI were similar for both parents, with fathers having somewhat lower FCI scores ($M = 3.84$) compared to mothers ($M = 3.88$). DIPB scores, however, were less than the scores for DAPB and FCI. In addition, mothers had lower scores for DIPB ($M = 3.07$) than fathers ($M = 3.18$).

Finally, there was a significant interaction effect for belief measures x parents x school type, $F(1.73, 632.49) = 4.77, p < .05$. Within public school, group parents' scores for DAPB were the highest, and mothers' scores ($M = 4.03$) were very similar to father scores ($M = 4.04$) for DAPB. Similarly, parents sending their children to public schools did not differ on FCI scores, with mothers ($M = 3.82$) and fathers ($M = 3.82$) having the same FCI scores. Finally, scores for DIPB were lowest among parents sending children to public schools. Mothers scored lower ($M = 3.26$) than fathers ($M = 3.33$) on DIPB. Among parents sending children to private schools, the scores for DAPB were the highest; however, there was only a small gap between DAPB scores and FCI scores. Private school parents also tended to differ a little more in their scores. Mothers within private schools had slightly higher scores for DAPB ($M = 4.08$) than fathers within private schools ($M = 4.00$). In addition, private school mothers had slightly higher FCI scores ($M = 3.95$) compared to father FCI scores ($M = 3.86$). Finally, the scores for DIPB were the lowest among private school parents' scores. Mothers had lower scores ($M = 2.88$) than fathers ($M = 3.04$) on DIPB.

DAPB Scores

A multiple linear regression was conducted to predict DAPB scores among parents. The predictors included sex, SES rank, and school type (public or private) (see Table 17). The overall model was significant, $F(3, 740) = 3.50, p < .05$, and accounted for 1.4% of the variance. The results indicated that SES rank was a significant predictor of DAPB scores. Higher SES rank was associated with an increase in DAPB scores ($Beta = .119, p < .01$).

Table 17

Linear Regression Predicting DAPB Scores from Sex, SES Rank, and School Type

	Unstandardized		<i>Beta</i>	<i>t</i>	<i>p</i>
	<i>B</i>	<i>SE</i>			
Parent sex	.025	.03	.027	.74	.461
SES rank	.068	.02	.119	3.15	.002
School type	.020	.04	.022	.58	.563

Note: $F(3, 740) = 3.50, p < .05, R^2 = .014$. SES rank= I, II, III, IV, and V. School type= public/ private.

DIPB Scores

A multiple linear regression was conducted to predict parents' DIPB scores. The predictors included gender, SES rank, and school type (see Table 18). The overall model was significant, $F(3, 740) = 46.99, p < .001$, and accounted for 16% of the variance. The

results indicated that gender, SES rank, and school type were all significant predictors of DIPB scores. Being a mother (vs. father) was associated with a decrease in DIPB scores ($Beta = -.086, p < .05$). In addition, public schools were associated with an increase in DIPB scores ($Beta = .194, p < .001$). Finally, higher SES rank was associated with a decrease in DIPB scores ($Beta = -.295, p < .001$).

Table 18

Linear Regression Predicting DIPB Scores from Sex, SES Rank, and School Type

	Unstandardized		<i>Beta</i>	<i>t</i>	<i>p</i>
	<i>B</i>	<i>SE</i>			
Parent sex	-.110	.04	-.086	-2.55	.011
SES rank	-.233	.03	-.295	-8.49	.000
School type	.249	.04	.194	5.57	.000

Note: $F(3, 740) = 46.99, p < .001, R^2 = .160$. SES rank= I, II, III, IV, and V. School type= public/ private.

FCI Scores

A multiple linear regression was conducted to predict parents' FCI scores. The predictors included sex, SES rank, and school type (see Table 19). The overall model was significant, $F(3, 740) = 3.01, p < .05$, and accounted for 1.2% of the variance. The results indicated that SES rank was a significant predictor of parents' FCI scores. Higher

parents' SES rank was associated with higher FCI scores ($Beta = .078, p < .05$). SES rank= I, II, III, IV, and V. School type= public/ private.

Table 19

Linear Regression Predicting FCI Scores from Sex, SES Rank, and School Type

	Unstandardized		<i>Beta</i>	<i>t</i>	<i>p</i>
	<i>B</i>	<i>SE</i>			
Parent gender	.035	.04	.030	.83	.405
SES rank	.055	.03	.078	2.08	.038
School type	-.062	.04	-.054	-1.43	.152

Note: $F(3, 740) = 3.01, p < .05, R^2 = .012$. SES rank= I, II, III, IV, and V. School type= public/ private.

Summary

The purpose of this research was to examine parents' beliefs about DAP in early childhood education programs that serve Taiwanese young children. A sample of 379 matched parent (mother and father) pairs was studied. The parents were mostly college graduates, and slightly more than half (58%) held low socioeconomic status. These parents for the most part (62%) had two children. Interestingly, 56% of the parents' children attended public schools. All three of the DAP scales were found to be reliable with this sample. This study found that mothers and fathers had similar beliefs about

DAP. Parents' scores for DAP were similar for those with low SES ($M = 4.00$) and parents with high SES ($M = 4.08$). Parents' scores for DAPB were similar for parents with children in public ($M = 4.03$) as well as private schools ($M = 4.04$). The DAPB and FCI scale scores for both mothers and fathers were high with some variability. Mothers' and fathers' scores on the DIPB scales were lower and showed even more variability.

Linear regression models were used to predict parents' DAPB, DIPB, and FCI scale scores based on their sex, socioeconomic status rank, and their children's school type. The results indicated that SES rank was a significant predictor of DAPB scores. Higher SES rank was associated with an increase in DAPB scores ($Beta = .119, p < .01$). The findings with this sample were inclusive and lead to a need for further discussion and research.

CHAPTER V

DISCUSSION

The purpose of this study was to examine Taiwanese parents' beliefs about developmentally appropriate practice in early childhood programs that serve their children from 3 through 6 years old in Taiwan's public and private preschools and kindergartens. Questionnaires were completed by 758 Taiwanese fathers and mothers (379 matched parents), all of whom had a least one child enrolled in a public or private preschool or kindergarten. Findings regarding family SES demonstrated fathers held stronger beliefs about developmentally inappropriate practices than mothers, especially for fathers with lower SES.

Summary and Discussion

Taiwanese Parents' Ideas and Beliefs of DAP

The first research question examined the extent to which parents in Taiwan reported their beliefs about DAP. Findings from this study indicated fathers and mothers reported their beliefs of developmentally appropriate practice (DAP) as very important (4.05 and 4.02) on the same 5-point Likert scale. This finding may be due to recent introduction of child centered approaches in Taiwan (Hsieh, 2004). This finding was also consistent with Chang's (2003) study. Fathers and mothers had scored DIPB somewhat lower (3.20 and 3.09) on the same 5-point Likert scale. Fathers and mothers rated the value of family, culture, and inclusion (FCI) as fairly important (3.88 and 3.84) on the same 5-point Likert scale. The findings indicated the multicultural education and

inclusion are emphasized in the U.S, whereas in Taiwan, the students are more homogenous in terms of ethnicity (Brok & Levy, 2005). The majority of children, at their time, are of Taiwan-Chinese ethnicity (Ministry of Education, 2006). The government has limited implemented educational policies related to cultural diversity and multicultural education (Chen, 2005). Because parents are rarely faced with a cultural issue in Taiwan, they value this cultural curriculum as less than DAPB within an early childhood education program.

Parents' Beliefs about DAP for Mothers and Fathers

The second research question focused on the differences of the three dimensions (DAPB, DIPB, and FCI) of the beliefs about DAP between fathers and mothers. For DIPB (inappropriate beliefs), fathers had higher scores than mothers. This finding may be due to mothers' greater involvement in their children's education than fathers. Mothers may have more opportunities to learn about child-centered education. Fathers and mothers did not differ on their beliefs about DAP or FCI, indicating both mothers and fathers equally recognized these beliefs.

Parents' Beliefs about DAP and SES

The third question examined the group differences of SES on the three dimensions of the beliefs about developmentally appropriate practices between parents of different socioeconomic status: DAPB, DIPB, and FCI. A significant relationship was found between mothers and fathers on the correlations between socioeconomic status (SES) rank and the three belief dimensions. The results showed there was weak, positive relationship between fathers' SES and their beliefs about DAPB. Higher fathers' SES

was related to higher DAPB scores for mothers. There were not any significant correlations for fathers' SES and fathers' DAPB scores. These findings indicated that upper socioeconomic status parents reported a higher beliefs about DAP (Grebe, 1998). Contrary to DAPB, results showed fathers and mothers had moderate and negative relationships between their SES and beliefs about DIPB. Higher SES was related to lower DIPB scores for fathers and mothers. These findings may be due to differences between the positive dimensions of the DAPB and the negative dimensions of DIPB. Results also showed a weak, positive relationship between mothers' SES and their beliefs about FCI. Again, higher SES was related to higher FCI scores for mothers. There were no significant correlations between SES and FCI for fathers. This finding about FCI is consistent with previous findings in this study which showed there were not any significant correlations for SES and DAPB for fathers. The beliefs of DAPB and FCI are positively focused on early childhood education. When teachers implement DAPB and FCI in their classrooms, their children will have positive outcome from their development and learning. Fathers of different SES may be less involved in their children's education; hence, the SES of fathers had little bearing on their beliefs about developmentally appropriate practices (Liou, 2006).

The findings showed that low SES parents and high SES parents did not differ on DAPB. Parents with lower SES had higher DIPB scores than those with higher SES. These results may reflect that lower SES parents were more supportive of formal didactic methods of education for young children (Mueller, 1996; Powell, 1989). Low and high SES mothers and fathers did not differ on FCI. For low SES, mothers and fathers did not

differ on DAPB or FCI. An interaction effect was found. Lower SES fathers had higher DIPB scores than lower SES mothers. For those with higher SES, mothers scored higher than fathers on DAPB and FCI. Higher SES fathers scored higher than high SES mothers on DIPB. This may be due to mothers having greater involvement in their children's education than fathers (Chen, 2005).

Parents' Beliefs About DAP and School Type

The fourth question examined if there were any differences between the three dimensions of DAP beliefs among parents with children enrolled in private or public early childhood programs. The findings showed public and private school parents did not differ on DAPB or FCI. Public school parents had higher DIPB scores than private school parents. Mothers with children in public schools had higher DIPB scores than mothers with children in private schools. Mothers with children in public schools had lower FCI scores than mothers with children in private schools.

Parents' Sex, SES, and Child School Type

The fifth question explored to what extent do parents' sex, socioeconomic status, and children's school type collectively predict parents' DAP beliefs. The findings from this study showed these variables accounted for only 1% of variance for DAPB. The effect size was small, and the only significant individual predictor was SES. Increased SES predicted increased DAPB. For DIPB, these variables accounted for 16% of the variance, and the effect size was moderate. Gender was a significant contributor of DIPB scores. Mothers (compared to fathers) predicted decreased DIPB scores. Increased SES predicted decreased DIPB scores. Public school versus private school attendance was also

a significant contributor in DIPB scores. Public school attendance (compared to private school) predicted increased DIPB scores. For FCI, these variables accounted for 1% of variance for FCI, and the effect size was small. The only significant individual predictor was parents' SES. Increased parents' SES predicted increased FCI scores. Other studies supported SES as an important factor or predictor for parents' beliefs or expectations about their children's education (Chen, 2005; Harding, 2006; Liou, 2006; Mueller, 1996; Yamamoto, Holloway, & Suzuki, 2006). Economic, education, and vocational background also appeared to influence parental beliefs in DAP in early education programs.

Contributions and Limitations

Despite the Taiwanese government's efforts and those of early education professionals to support developmentally appropriate beliefs and practices, this study of parents' DAP beliefs demonstrates limited impacts. This study provided some data to the field on different dimensions of DAPB/DIPB among a select group of Taiwanese parents. This study compared group differences between parents on the three dimensions of DAP. Demographic variables predicting parents' DAPB and DIPB were explored in this study. This study partially validated the psychometric properties of the parents' beliefs survey in Taiwanese culture.

The findings of the present study should be considered in light of the following limitations. A convenience sample was used for this study, and the generalizability of the findings is limited. The translated and modified questionnaire evidenced psychometric challenges among this Taiwan sample. Due to limited sample size, the researcher did not

conduct confirmatory factor analysis (CFA) and exploratory factor analysis (EFA) to validate the factor structure of the instrument (Hair, Black, Babin, Anderson, & Tatham, 2006), and this serves as a study limitation. The researcher did not monitor participants' answering of the questionnaire, which may have resulted in lower quality answers. The self-reported nature of this questionnaire may have threatened its ecological validity (Stone & Litcher-Kelly, 2006).

Future Research

The following recommendations are provided for further study. A redesign of the survey instrument, which to include additional variables that may contribute to beliefs about DAP would be beneficial. Also, carefully analyzing the validity and reliability of this instrument is important if it is to be used with parents. Administering multiple and mixed methods to explore and validate the various questions within the questionnaire is needed.

The researcher used a questionnaire of DAP belief for teachers found in a study by Kim (2005). Further study of the psychometric properties and the survey structure are needed as they relate to both male and female parents. Exploration of ways to enhance the validity and reliability of the questionnaire is needed to improve the quality of the data. To reflect the uniqueness of Taiwan's educational culture, indigenous instrument for a Taiwanese sample is needed for future studies.

Further research is needed about other parental characteristics, such as parent's age, children's sex, children's birth order, number of siblings, and residential region and how these characteristics may impact parents' beliefs about DAP in early childhood

education (Lin, 2004). Additionally, it would be very interesting to study single parent families and those who have a parent who has immigrated to Taiwan.

Finally, further research may employ qualitative methods to collect the data, such as classroom observations, case studies, and interviews, all which would complement a self-report survey method. Also the researcher could use triangulation and mixed methods data analyses to enhance the understanding of parents' DAPB (Creswell, 2003).

Implications

The findings of this study include research, practice, policy, and culture implications as they relate to early childhood education. The discussion will focus on ways to expand research, improve practice, consider policies, and be inclusive of various cultural aspects in research, practice and policy.

Research Implications

Fathers and mothers did not differ in their beliefs about DAP, indicating both similarities with paired parents. Fathers had higher beliefs about DIPB. The findings demonstrated that high SES parents and low SES parents did not differ on their beliefs about DAP. The findings indicated parents who sent their children to public or private schools did not differ on DAPB. These findings are not fully explained through this study; further investigation is needed. Changing educational values, educational policies, and parental involvement in education may contribute to these findings about parents' beliefs towards DAP (Yamamoto, Holloway, & Suzuki, 2006). The multiple regression analyses on predicting different dimensions of DAPB and DIPB in this study also need further investigation and may be enhanced by adding additional parental and family variables.

This study was a beginning to understand belief factors related to DAP among Taiwanese parents.

As educational policies and teacher practices in both private and public educational programs for young children change, research will be needed to better understand the impact of these on DAP. Likewise, as parents' ideas and values related to the education of young children change, studies will be needed to explore their DAPB.

Practice Implications

From a practical perspective, this research found that Taiwanese parents of young children generally endorse DAP beliefs. However, fathers in this inquiry held stronger beliefs about developmentally inappropriate practices than mothers, especially among lower SES fathers. A possible priority for future parent education for lower SES fathers is, to help them understand more about DAP, in order for them to alter their beliefs about developmentally inappropriate practices (Yamamoto, Holloway, & Suzuki, 2006). The finding of this study also indicated Taiwanese parents' SES is an important factor for influencing their beliefs about DAP. It is important for schools and teachers to encourage lower SES parents to be more involved in children's education and to inform them more about the advantages of DAP in classrooms. Teachers could also demonstrate DAP to parents of young children so that they could better understand these practices.

As teacher practices in both private and public educational programs for young children change, research will be needed to better understand the impact of these changes on DAP. Likewise, as parents' ideas and values related to the education of young children change, studies will be needed to explore their DAPB.

Policy Implications

The Taiwan Ministry of Education and Ministry of Interior will need to continue to explore the population trends of parents with young children in order to better serve young children and their families. Several parental variables that will need to be considered are single parents, both parents working outside the home, parents of different cultural backgrounds, such as, the number of foreign mothers currently in Taiwan and the very recent changes in government leadership (Lin, 2007). As the economy changes in Taiwan and in other countries, policies will likely change to reflect the values of the people on educating young children. It is possible in Taiwan, more parents and caregivers will enroll their children in public education rather than private. This may have policy implications for curriculum, teacher education, and funding of early childhood education programs (Liou, 2006). Studies exploring the educational policies of various Asian countries and parents' DAP beliefs would be interesting and informative.

As Taiwan aligns itself more with China, educational policies will need to be studied to see if there are changes in the influence of Western cultures. It would also be important to learn more about the impact of the United State legislation related to "No Child Left Behind," on Taiwan's educational policies and the impact this may have on parents' belief about DAP.

Culture Implications

The emphasis in education has been on traditional Confucian philosophy in Taiwan, and this has influenced Taiwanese parents' and teachers' beliefs and practices. Taiwanese parents often believe education and a college degree are important aspects of

their children's accomplishments and are necessary for their future financial and career success (Lin, 2004). Because of these beliefs and the high educational competition, parents in Taiwan believe in strong academic experiences for their young children. Most early childhood professionals (Chen, 2002) think DAP is a non-academic approach which promotes young children's positive development. Early childhood professionals introduced DAP ideas to Taiwanese early childhood educators and parents over 10 years ago (Liou, 2006). Taiwanese Ministry of Education and Ministry of Interior supported DAP's implementation in early childhood classrooms (Chen, 2005). Yet, as evidenced by this study, it is slow to change long-term culture beliefs and practices. At the same time, this study provides some indicators that more Taiwanese parents will support DAP due to increasing influence of Western educational views and also Taiwan's changing social structure, including the growth of the economy, changes in family size, and technological advancements (Hsieh, 2004).

Summary

The findings showed: (a) fathers and mothers of young children held DAPB as important; (b) fathers had higher scores than mothers on DIPB; (c) mothers with high SES scored higher than fathers with high SES on DAPB and FCI; (d) mothers with children in public schools scored higher on DIPB than mothers of children in private schools; and (e) increased SES of parents predicted increases in DAPB and FCI.

APPENDIX A
QUESTIONNAIRE IN ENGLISH

**Parents' Beliefs about Their Children's Early Childhood Education Questionnaire
(Father answers blue one and mother answers pink one)**

Today's Date: _____

Directions: The information in this questionnaire will be kept confidential. The study will not hurt you in any way. No others except for researchers will know your answers. Therefore, please answer the questions honestly.

Part I. Family Background : Please **circle** the responses to the following :

(1) Parents-

1. Age _____

2. Family type

A. Two-parents

B. Single Parent

3. Year of education completed _____

Highest level of education completed

A. Uneducated

B. Graduated from elementary

C. Graduated from middle school, high school, or vocational high school

D. Graduated from a university or college

E. Graduated from graduate School

4. Occupation (Please check the appropriate category v or fill in the "**Other**" space).

_____ A. **Semi-technical and non-technical workers:** such as housekeeper, vendor, fisherman, seaman, waiter, servant and unemployed.

_____ B. **Technical worker:** such as electrician, salesman, driver, tailor, beauty-specialist, barber, chef, and postman.

_____ C. **Semi-professional worker and public servant:** such as technician,

cashier, general public servant, policeman, and elementary school teacher,
low level official.

_____ **D. Professional and official:** such as accountant, judge, lawyer, engineer,
secondary school teacher, middle level administrator, principal, and owner or
manager of company.

_____ **E. High-level professional and administrator:** such as doctor, legislator,
congressperson, college professor, military general, and president of a large
enterprise.

_____ **F. Other.**

(2) Your children-

_____ **5.** How many children do you have? Please list the following information for
each child.

	Attending	Attending	Attended	Attended	
Sex:	Date of Birth	public school	private school	public school	private school
Child 1:	_____	_____	_____	_____	
Child 2:	_____	_____	_____	_____	
Child 3:	_____	_____	_____	_____	
Child 4:	_____	_____	_____	_____	

Part II. Parents' Beliefs Scale

Directions: The purpose of this questionnaire is to investigate parents' beliefs about early childhood education for their children. Since the questionnaire assesses beliefs, there are no "right" or "wrong" answers—each person answers each question based on his or her personal beliefs. At least you need to have one child is attending the nursery school or kindergarten at present. Please circle the number that most nearly represents your beliefs about each item's importance for early childhood programs.

1. Rank the following (1-6) by the amount of influence you believe each has on the way teacher's plan, or will plan, and implement instruction, after considering children's needs. Please use each number only once.
(1 = Most influence; 6 = Least influence)

Parents _____
 School system policy _____
 Principal/director _____
 Teacher _____
 State regulations _____
 Other teachers _____

1 2 3 4 5
Not at all **Not very** **Fairly** **Very** **Extremely**
Important **Important** **Important** **Important** **Important**

2. As an evaluation of children's progress, readiness or achievement tests are_____.	1	2	3	4	5
3. To plan and evaluate the curriculum, teacher observation is _____.	1	2	3	4	5
4. It is _____ for activities to be responsive to individual children's interests.	1	2	3	4	5
5. It is _____ for activities to be responsive to individual differences in children's levels of development.	1	2	3	4	5
6. It is _____ for activities to be responsive to the cultural diversity of students.	1	2	3	4	5
7. It is _____ that each curriculum area be taught as separate subjects (e.g., Math, language, science) at separate times like elementary school.	1	2	3	4	5
8. It is _____ for teacher-child interactions to help develop children's selfesteem and positive feelings toward learning.	1	2	3	4	5

	1	2	3	4	5
	Not at all Important	Not very Important	Fairly Important	Very Important	Extremely Important
9. It is ____ for teachers to provide opportunities for children to select many of their own activities.	1	2	3	4	5
10. It is ____ to use the same approach for reading and writing instruction.	1	2	3	4	5
11. Instruction in letter and word recognition is ____ in preschool.	1	2	3	4	5
12. It is ____ for the teacher to provide a variety of learning areas with concrete materials (writing center, science center, math center, etc.).	1	2	3	4	5
13. It is ____ for children to create their own learning activities (e.g., cut their won shapes, decide on the steps to perform an experiment, plan their creative drama, art, and computer activities).	1	2	3	4	5
14. It is ____ for children to work individually at desks or tables most of the time.	1	2	3	4	5
15. Workbooks are ____ in children's classroom.	1	2	3	4	5
16. A structured reading or pre-reading program is ____ for age 3- 6 years old children.	1	2	3	4	5
17. It is ____ for the teacher to talk to the whole group and for the children to do the same things at the same time.	1	2	3	4	5
18. It is ____ for the teacher to move among groups and individuals, offering suggestions, asking questions, and facilitating children's involvement with materials, activities, and peers.	1	2	3	4	5
19. It is ____ for teachers to use treats, stickers, and/or stars to get children to do activities that they don't really want to do.	1	2	3	4	5
20. It is ____ for teachers to regularly use punishments and/or reprimands when children aren't participating.	1	2	3	4	5
21. It is ____ for teachers to develop an individualized behavior plan for addressing severe behavior problems.	1	2	3	4	5
22. It is ____ for teachers to allocate extended periods of time for children to engage in play and projects.	1	2	3	4	5
23. It is ____ for children to write by inventing their own vocabulary.	1	2	3	4	5

	1	2	3	4	5
	Not at all Important	Not very Important	Fairly Important	Very Important	Extremely Important
24. It is ____ for children to color within pre-drawn forms.	1	2	3	4	5
25. It is ____ for teachers to read stories daily to children, individually and/or on a group basis.	1	2	3	4	5
26. It is ____ for children to dictate stories to their teacher.	1	2	3	4	5
27. It is ____ that teachers engage in on-going professional development in early childhood education (e.g., attend professional conferences, read professional literature).	1	2	3	4	5
28. It is ____ for children to see and use functional print (telephone book, magazines) and environmental print (candy boxes, potato chip bags).	1	2	3	4	5
29. It is ____ to provide many daily opportunities for children to developing social skills (i.e., cooperating, helping, talking) with peers in the classroom.	1	2	3	4	5
30. It is ____ that books, pictures, and materials in the classroom include people of different races, ages, and abilities and both genders in various roles.	1	2	3	4	5
31. It is ____ that outdoor time have planned activities.	1	2	3	4	5
32. It is ____ for parents/guardians to be involved in ways that are comfortable for them.	1	2	3	4	5
33. It is ____ for teachers to use strategies like setting limits, problem solving, and redirection to be used to help guide children's behavior.	1	2	3	4	5
34. It is ____ for teachers to integrate each child's home culture and language into the curriculum throughout the year.	1	2	3	4	5
35. It is ____ for teachers to solicit and incorporate parent's knowledge about their children for assessment, evaluation, placement, and planning.	1	2	3	4	5
36. It is ____ for teachers to establish a collaborative partnership/relationship with parents of all children, including parents of children with special needs and from different cultural groups.	1	2	3	4	5
37. It is ____ for the classroom teacher to modify, adapt, and accommodate specific indoor and outdoor learning experiences for the child with special needs as appropriate	1	2	3	4	5

	1	2	3	4	5
	Not at all Important	Not very Important	Fairly Important	Very Important	Extremely Important
38. It is ____ that services (like speech therapy) be provided to children with special needs in the regular education classroom by specialist within the context of typical daily activities.	1	2	3	4	5
39. It is ____ that teachers maintain a quiet environment.	1	2	3	4	5
40. It is ____ that teachers provide the same curriculum and environment for each group of children that comes through the program.	1	2	3	4	5
41. It is ____ for teachers to focus on teaching children isolated skills by using repetition and recitation (e.g., reciting poems).	1	2	3	4	5
42. It is ____ for teachers to follow a prescribed curriculum plan without being distracted by children's interests or current circumstances.	1	2	3	4	5
43. It is ____ for teachers to plan activities that are primarily just for fun without connection to program goals.	1	2	3	4	5

APPENDIX B
QUESTIONNAIRE IN CHINESE

父母對幼兒教育看法的調查 *父親請填寫藍色卷, 母親請填寫粉紅色卷*

這份研究是我的博士論文, 目的是在了解父母對台灣幼兒教育的態度與看法, 您的寶貴意見將能提供幫助家長與老師之間在孩子的幼兒教育建立很好的夥伴關係。這份問卷包含您的基本資料以及您對幼兒教育的看法。這份問卷本身不包含敏感的議題, 也不會對您和您的孩子有任何傷害, 資料與意見也不會被洩露。本問卷採不記名方式, 所得資料僅供研究分析用, 請將填妥的問卷放入信內, 當您交回這份問卷即表示您本人同意參與本研究。

我很樂意回答您的問題, 請 e-mail 至 yenjack@gmail.com 或來電至 0928838532, ***請您在五天內交回問卷, ***謝謝您的協助與填答

美國北德州大學幼兒教育博士候選人
顏耀宗 敬上

****說明:** 您目前至少要有一個小孩三至六歲就讀公私立幼稚園或公私立托兒所, 才符合這份調查對象, 否則請不要作答。請父親, 母親各自作答, 不要互相代答, 否則會影響本調查的研究結果。所以請據實回答每個問題, 並請勿遺漏任何一題, 謝謝您的合作。

填表日期: _____

第一部份: 家庭背景- 請選擇或填寫下面適合您的答案

1. 家長:

_____ 1. 年齡 (請填寫出生年月日)

_____ 2. 家庭形態

1. 雙親

2. 單親

_____ 年 3. 受教育年數: 6=小學, 9=國中, 12=高中, 14=專科, 16=大學, 18, 19=碩士, 22, 23, 24...=博士

_____ 4. 最高的學歷,

1. 未曾受過正式教育

2. 小學畢業

3. 國中, 高中, 高職畢業

4. 大學, 專科學校畢業

5. 研究所畢業(碩士, 博士)

_____ 5. 職業: 請選擇適合的類別

1. 半技術及非技術工人: 如士兵, 工人, 學徒, 攤販, 佃農, 魚夫, 工友, 大樓管理員, 門房, 幫傭, 服務生, 家管, 無業。
2. 半技術工人: 如技工, 領班, 推銷員, 商店老闆, 零售商, 打字員, 監工, 自耕農, 司機, 裁縫師, 美容師, 理髮師, 廚師, 郵差士官。

3. 半專業及一般性公務人員:如技術人員,代書,科員行員,出納員,鄉鎮民代表,縣市議員,一般委任級公務人員,警察,消防人員,小學教師,尉級軍官,包商,代理商,秘書,護士,演員,服裝設計師,船員,小型工商業老闆。
4. 專業及中級行政人員:如中小學校長,會計師,法官,檢察官,律師,工程師,建築師,院轄市議員,薦任級公務人員,中學教師,廠長,公司老闆,中型商業經理人員(經理副理襄理協理),校級軍官,警官,作家,畫家,音樂家,記者,船長。
5. 高級專業人員及行政人員:如醫師,護理長,立法委員,特任級或簡任級公務人員,大專校長,大專教師,將級軍官,工商業董事長,總經理,大法官,科學家,中央部會首長,考試委員,監察委員。
6. 其他_____ (請填寫)

6. 您的孩子:

_____ 1. 您有幾個小孩? (請在前面空格填寫). 請告訴我們所有小孩的资料填寫回答下面問題

	性別	出生年月日	目前正就讀 公立幼兒園 (請填寫從年 月入學至目 前)	目前正就讀 私立幼兒園 (請填寫從年 月入學至目 前)	以前曾就讀 公立幼兒園 (請填寫從年 月入學至年 月離開)	以前曾就讀 私立幼兒園 (請填寫從年 月入學至年 月離開)
第一個孩子						
第二個孩子						
第三個孩子						
第四個孩子						

第二部份:家長看法

**說明: 這份問卷調查目的是調查有關家長對自己孩子在目前所就讀的幼兒園在幼兒教育各方面的看法, 答案沒有對錯之分, 請依照您自己的個人看法據實回答。

1. 在考慮小朋友的需求後, 請依您的看法排列出下列選項對老師計劃和實施教學的影響程度。每個號碼請只使用一次 (1, 2, 3, 4, 5, 6)。(1 = 影響最多; 6 = 影響最少)

- _____ 家長
- _____ 學校體制政策
- _____ 校長/園長
- _____ 老師
- _____ 政府法令規章
- _____ 其他老師

**說明: 下面問題請在每題圈選出最能代表您意見的選項: 最接近您對自己孩子目前在幼兒園接受教育的看法, 您認為:

(1 = 根本不重要; 5 = 極為重要)

	根本 不 重 要	不 是 很 重 要	有 些 重 要	非 常 重 要	極 為 重 要
2. 對於幼兒發展的評量，老師應給予孩子預備性評量和成就性評量	1	2	3	4	5
3. 為了規劃和評估課程，老師的親身觀察	1	2	3	4	5
4. 老師應該依據幼兒的個別興趣來設計課程活動	1	2	3	4	5
5. 老師應該依據幼兒在（生理及心理）發展上的個別差異來設計課程活動	1	2	3	4	5
6. 學校的課程活動應反應幼兒的文化差異	1	2	3	4	5
7. 每個科目老師應該分別在不同的時間教授，像小學一樣小朋友分科學習	1	2	3	4	5
8. 以老師和幼兒在課堂上的彼此互動，來建立小朋友的自尊心和引起學習興趣	1	2	3	4	5
9. 老師願意提供很多機會讓幼兒選擇他們自己想要進行的活動	1	2	3	4	5
10. 老師應該對全班幼兒採用同一種方式來教閱讀和寫作	1	2	3	4	5
11. 老師應該教導幼兒注音和認字及英文ABC	1	2	3	4	5
12. 老師應該在各個角落學習區準備可以讓幼兒實際操作的用具（寫作角，科學角，數學角，等等）	1	2	3	4	5
13. 幼兒可以自由創造他們的活動（例如：剪貼，做實驗，計畫他們自己創造的戲劇、美術和電腦活動）	1	2	3	4	5
14. 大部分教室的時間可由小朋友獨自在桌上學習	1	2	3	4	5
15. 老師應該在教室裏使用練習本讓幼兒練習	1	2	3	4	5
16. 老師應該教導小朋友閱讀	1	2	3	4	5
17. 老師應該採團體教學方式，並且讓幼兒同時參與同一活動	1	2	3	4	5
18. 老師應該適時參予各個團體、與幼兒互動、激發小朋友思考、幫助幼兒使用工具、和帶領幼兒與同儕展開互動	1	2	3	4	5
19. 老師應該使用獎品或貼紙來吸引小朋友參與他們不想參與的活動	1	2	3	4	5
20. 當小朋友不參與活動時老師應該經常使用懲罰或責罵方式	1	2	3	4	5
21. 老師應該發展個人行為計畫幫助解決孩子的嚴重行為問題	1	2	3	4	5
22. 老師應該分配一段較長的時間來讓幼兒參與遊戲	1	2	3	4	5
23. 老師應該讓小朋友嘗試書寫自己創作的字和句子	1	2	3	4	5

	根本 不重 要	不 是 很 重 要	有 些 重 要	非 常 重 要	極 為 重 要
24. 老師應該讓幼兒將著色本中的圖案塗上顏色	1	2	3	4	5
25. 老師應該每天對個人或團體幼兒說故事	1	2	3	4	5
26. 幼兒說故事給老師聽	1	2	3	4	5
27. 老師應該繼續在幼兒教育專業領域中進修 (例如, 參加專業研習, 閱讀專業文獻)	1	2	3	4	5
28. 老師應該教幼兒學會閱讀日常生活相關之讀物 (像電話簿及雜誌) 和日常生活用品的說明 (像紙盒及包裝袋)	1	2	3	4	5
29. 每天在教室中提供幼兒與同學互動的機會 (例如合作, 互助, 談話) 以建立社交能力	1	2	3	4	5
30. 在教室裏的書籍、照片和教材的內容能包括不同種族、年齡和能力的人物, 同時包含兩性所扮演的不同角色	1	2	3	4	5
31. 戶外遊戲包含在活動設計中	1	2	3	4	5
32. 家長或監護人以他們覺得適合的方式來參與課程活動	1	2	3	4	5
33. 老師應該以限制行動解決爭端, 和導正行為等策略來糾正幼兒的不好行為	1	2	3	4	5
34. 老師應該將幼兒的家庭文化及語言融入整學期的課程中	1	2	3	4	5
35. 老師應該向家長詢問對於他們幼兒在家裏的活動及發展狀況, 並且把這些資料列入評估的內容與策略中	1	2	3	4	5
36. 老師應該與家長建立良好合作關係, 包括有特殊需求幼兒的家長和來自不同文化團體的家長	1	2	3	4	5
37. 老師應該為有特殊需求的幼兒提供特別的室內外學習經驗	1	2	3	4	5
38. 老師應該在教室每日課程活動中由專家提供幫助給有特殊需求的幼兒	1	2	3	4	5
39. 老師應該維持一個安靜的環境	1	2	3	4	5
40. 老師應該提供相同的課程和環境給幼稚園裡每一班的幼兒	1	2	3	4	5
41. 老師應該利用重複練習和背誦教小朋友 勺勺口唐詩	1	2	3	4	5
42. 老師應該採用既定的課程計畫, 不考慮小朋友的興趣或環境影響	1	2	3	4	5
43. 老師應該計畫活動以有趣為主要目標, 和課程目標不互相結合沒關係	1	2	3	4	5

請再檢查是否遺漏問題未填寫, 感謝您的協助

APPENDIX C
IRB APPROVAL LETTER

UNT
UNIVERSITY OF
NORTH TEXAS
DISCOVER THE POWER OF IDEAS

RESEARCH AND TECHNOLOGY TRANSFER
Office of Research Services

May 7, 2007

Yaotsung Yen
Department of Counseling, Development and Higher Education
University of North Texas

RE: Human Subjects Application No. 07-166

Dear Mr. Yen:

In accordance with 45 CFR Part 46 Section 46.101, your study titled "Parents' Beliefs about Developmentally Appropriate Practice in Early Childhood Programs in Taiwan" has been determined to qualify for an exemption from further review by the UNT Institutional Review Board (IRB).

Enclosed is the consent document with stamped IRB approval. Please copy and **use this form only** for your subjects.

No changes may be made to your study's procedures or forms without prior written approval from the UNT IRB. Please contact Shelia Bourns, Research Compliance Administrator, ext. 3940, if you wish to make any such changes.

Sincerely,



Scott Simpkins, Ph.D.
Chair
Institutional Review Board

SS:sb

Informed Consent Form

Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the purpose and benefits of the study and how it will be conducted.

Title of Study: Parents' Beliefs about Developmentally Appropriate Practice (DAP) in Early Childhood Programs in Taiwan

Principal Investigator: Yaotsung Yen, a graduate student in the University of North Texas (UNT) Department of Counseling, Development, and Higher Education.

Purpose of the Study: You are being asked to participate in a research study which involves parents' beliefs about developmentally appropriate practice in early childhood programs. The results of the study will help build strong parents' and teachers' partnership in early childhood programs.

Study Procedures: You will be asked to answer and fill out the questionnaire of parents' belief scale that will take about 20 minutes of your time.

Foreseeable Risks: No foreseeable risks are involved in this study.

Benefits to the Subjects or Others: The expected benefit of this research is to provide a contemporary view of Taiwanese parents' beliefs about early childhood education. Furthermore, the results may help us understand better if parents support DAP.

Procedures for Maintaining Confidentiality of Research Records: The survey will be anonymous so your confidential information will be protected fully. The confidentiality of your individual information will be maintained in any publications or presentations regarding this study.

Questions about the Study: If you have any questions about the study, you may contact Yaotsung Yen at telephone number 940-384-9895 or the faculty advisor, Dr. George S. Morrison, UNT Department of Counseling, Development, and Higher Education, at telephone number 940-565-4476.

Review for the Protection of Participants: This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at (940) 565-3940 with any questions regarding the rights of research subjects.

Research Participants' Rights: Your signature below indicates that you have read or have had read to you all of the above and that you confirm all of the following:

- Yaotsung Yen has explained the study to you and answered all of your questions. You have been told the possible benefits and the potential risks and/or discomforts of the study.

- You understand that you do not have to take part in this study, and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your participation at any time.
- You understand why the study is being conducted and how it will be performed.
- You understand your rights as a research participant and you voluntarily consent to participate in this study.
- You have been told you will receive a copy of this form.

Printed Name of Participant

Signature of Participant

Date

For the Principal Investigator or Designee: I certify that I have reviewed the contents of this form with the participant signing above. I have explained the possible benefits and the potential risks and/or discomforts of the study. It is my opinion that the participant understood the explanation.

Signature of Principal Investigator or Designee

Date

APPROVED BY THE UNT IRB
FROM 5/7/07 TO 5/6/08
[Signature]

REFERENCES

- Babbie, E. (2004). *The practice of social research*. Belmont, CA: Tomson & Wadsworth.
- Barclay, L. K. (1989). Early childhood education in Taiwan. *Dimensions, 18*, 8-10.
- Berk, E. L., & Winsler, A. (1995). *Scaffolding children's learning*. Washington, DC: National Association for the Education of Young Children.
- Boocock, S. S. (1972). *An introduction to the sociology of learning*. Boston: Houghton Mifflin.
- Bowlby, J. (1988). *A secure base*. New York: Basic Books.
- Burts, D. C., Buchanan, T. K., Charlesworth, R., & Jambunathan, S. (2000). *Rating scale for measuring the degree of developmentally appropriate practice in early childhood classrooms (3-5 year olds)*. Baton Rouge, LA: Louisiana State University College of Education.
- Bracken, B. A., & Fouad, N. (1987). Spanish translation and validation of the Bracken Basic Concept Scale. *School Psychology Review, 16*, 94-102.
- Bredenkamp, S. (1987). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8*. Washington, DC: The National Association for the Education of Young Children.
- Bredenkamp, S., & Rosegrant, T. (Eds.). (1992). *Reaching potentials: Appropriate curriculum and assessment for young children*. Washington, DC: National Association for the Education of Young Children.

- Bredekamp, S., & Copple, C. (Eds.). (1997). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8* (Rev. ed.). Washington, DC.: The National Association for the Education of Young Children.
- Brok, P. D., & Levy, J. (2005). Teacher-student relationships in multicultural class: Reviewing the past, preparing the future. *International Journal of Education Research, 43*, 25-38.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and Design*. Cambridge, MA: Harvard University Press.
- Burts, D. C, Hart, C. H., Charlesworth, R., & Kirk, L. (1990). A comparison of frequencies of stress behaviors observed in kindergarten children in classrooms with developmentally appropriate versus developmentally inappropriate instructional practices. *Early Childhood Research Quarterly, 5*, 407-423.
- Burts, D. C, Hart, C. H., Charlesworth, R., DeWolf, D. M., Ray J., Manuel, K, & Flegge, P. O. (1993). Developmental appropriateness of kindergarten programs and academic outcomes in first grade. *Journal of Research in Childhood Education, 8*, 23-31.
- Chan, S. (1999). The Chinese learner-A question of style. *Education + Training, 41*, 294-304.
- Chao, R. K. (1994). Beyond parental control and authoritarian parenting style: Understanding Chinese parenting through the cultural notion of training. *Child Development, 65*, 1111-1119.

- Chao, R. K. (1996). Chinese and European American mothers' beliefs about the role of parenting in children's school success. *Journal of Cross-Cultural Psychology, 27*, 403-423.
- Charlesworth, R., Hart, C. H., Burts, D. C., Mosley, J., & Fleege, P. O. (1993). Measuring the developmental appropriateness of kindergarten teacher's beliefs and practices. *Early Childhood Research Quarterly, 8*, 255-276.
- Charlesworth, R. (1998). Developmentally appropriate practice is for everyone. *Childhood Education, 74*, 274-282.
- Chen, B. (2002). A guide for early childhood education in R.O.C. *Education Information Periodical, 13*, 215-235.
- Chen, C., & Stevenson, H. W. (1989). Homework: A cross-cultural examination. *Child Development, 60*, 551-561.
- Chen, J. S. (2005). The discourse of preschool education market-from the viewpoint of parents. *Education and Society Research, 9*, 33-72.
- Crain, W. (2004). *Theories of development: Concepts and applications* (5th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Creswell, J. W. (2003). *Research design-Qualitative, quantitative, and mixed methods Approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Dank, H. G. (1978). An investigation of the relationship between the kindergarten goals ascribed to by parents, kindergarten teachers and grade one teachers. (Doctoral dissertation, University of Massachusetts, 1990). *Dissertation Abstracts International, 39*, 110A.

- David, G. A., & Rimm, S. B. (2004). *Education of the gifted and talented* (5th ed.). Boston, MA: Allyn and Bacon.
- Dewey, J. (1916). *Democracy and education: An introduction to the philosophy of education*. New Yoek: Free Press.
- Dunn, L., Beach, S. A., & Kontos, S. (1994). Quality of the literacy environment in day care and children's development. *Journal of Research in Childhood Education*, 9, 24-34.
- Dunn, L., & Kontos, S. (1997). What have we learned about developmentally appropriate practices? *Young Children*, 52, 4-13.
- Elkind, D. (1993). *Images of the young child. Collected essay on development and education*. Washington, DC: NAEYC.
- Elkind, D. (1989). Developmentally appropriate practice: Philosophical and practical implications. *Phi Delta Kappan*, 71, 113-117.
- Erikson, E. H. (1950). *Childhood and society*. New York: Norton & Co.
- Erikson, E.H. (1982). *The life cycle completed*. New York: W. W. Norton.
- Feng, J. (1994). *Asian-American children: What teachers should know*. Urbana, IL: ERIC Clearinghouse on Elementary and Early Childhood Education. (ERIC Document Reproduction Service No. ED369577)
- Frede, E., & Barnett, W. S. (1992). Developmentally appropriate public school preschool: A study of implementation of the High/Scope curriculum and its effects on disadvantaged children's skills at first grade. *Early Childhood Research Quarterly*, 7, 483-499.

- Galen, H. (1994). Developmentally appropriate practice: Myths and facts. *Principal*, 73, 20-22.
- Gardner, H. (1999). *Intelligence reframed: Multiple intelligences for the 21st century*. New York: Basic Book.
- Gestwicki, C. (1999). *Developmentally appropriate practice: Curriculum and development in early education*. Albany, N.Y.: Delmar Publishers.
- Government Information Office, Republic of China (Taiwan). (2000). *Taiwan's educational development and present situation*. Retrieved October 8, 2007, from <http://www.gio.gov.tw/info/taiwan-story/education/frame/frame3.htm>
- Grebe, J. (1998). Parents' understanding of developmentally appropriate practice in early childhood programs. Unpublished thesis, University of North Texas, Denton.
- Harding, N. N. (2006). Ethnic and social class similarities and differences in mothers' beliefs about kindergarten preparation. *Race Ethnicity and Education*, 9, 223-237.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R.E., & Tattatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Upper Saddle River, NJ: Pearson.
- Harris, J. D., & Larsen, J. M. (1989). Parent education as a mandatory component of preschool: Effects on middle-class, educationally advantaged parents and children. *Early Childhood Research Quarterly*, 4, 275-287.
- Hart, C. H., Burts, D. C., & Charlesworth, R. (1997). *Integrated developmentally appropriate curriculum: Birth to age eight*. Albany, NY: State University New York Press.

- Hart, C. H., Burts, D. C., Durland, M. A., Charlesworth, R., DeWulf, M., & Fleege, P. O. (1998). Stress behaviors and activity type participation of preschoolers in more and less developmentally appropriate classrooms: SES and sex differences, *Journal of Research in Childhood Education, 12*, 176-1.
- Hayes, S. L. D. N. (1992). Parental perceptions of appropriate early childhood programs as compared of the NAEYC guidelines of developmentally appropriate programs for five years olds. (Doctoral dissertation, University of South Carolina, 1992). *Dissertation Abstracts International, 53*, 2675A.
- Heaston, A. R. (1991). The relationship between income level and educational background and parent perceptions of a developmentally appropriate curriculum in an early childhood center (Doctoral dissertation, Ball State University, 1991). *Dissertation Abstracts International, 52*, 3174A.
- Henderson, A. (1988). Parents are school's best friends. *Phi Delta Kappan, 70*, 149-153.
- Hill, T. W. (1984). Dimensions of beliefs and values of kindergarten teachers, nursery teachers, and mothers pertaining to children entering kindergarten. (Doctoral dissertation, Rutgers University). *Dissertations Abstracts International, 45*, 2386A.
- Ho, J., & Crookall, D. (1995). Breaking with Chinese cultural traditions: Learner autonomy in English language teaching. *System, 23*, 235-243. (ERIC Document Reproduction Service No. ED508447)
- Hollingshead, A. B. (1957). *Two factor index of social position*. Unpublished manuscript. Department of Sociology, Yale University, New Haven, CT.

- Holloway, S., Rambaud, M., Fuller, B., & Eggers-Pierola, C. E. (1995). What is “Appropriate Practice” at home and in child care?: Low income mother views on preparing their children for school. *Early Childhood Research Quarterly, 10*, 451-473.
- Holloway, D. D., Rambaud, M. F., Fuller, B., & Eggers-Pierola, C. (1995). What is “appropriate practice” at home and in child care? Low-income mother’s views on preparing their children for school. *Early Childhood Research Quarterly, 10*, 451-473.
- Hoot, J. L., Parmar, R. S., Hujala-Huttunen, E., Cao, Q., & Chacon, A.M. (1996). Cross-national perspectives on developmentally appropriate practices for early childhood programs. *Journal of Research in Childhood Education, 10*, 160-169.
- Hsieh, M. F. (2004). Teaching practices in Taiwan’s education for young children: Complexity and ambiguity of developmentally appropriate practices and/or developmentally inappropriate practices. *Contemporary Issues in Early Childhood, 5*, 309-329.
- Hsue, Y., & Aldridge, J. (1995). Developmentally appropriate practice and traditional Taiwanese culture. *Journal of Instructional Psychology, 22*, 320-323.
- Huffman, L. R., & Speer, P. W. (2000). Academic performance among at-risk children: The role of Developmentally Appropriate Practices. *Early Childhood Research Quarterly, 15*, 167-184.

- Huntsinger, C. S., Huntsinger, P. R., Ching, W., & Lee, C. B. (2000). Understanding cultural contexts fosters sensitive caregiving of Chinese American children. *Young Children, 55*, 7-12.
- Huntsinger, C. S., Jose, P. E., Huntsinger, P. R., Liaw, F. R. (2000). Parental values and practices relevant to young children's social development in Taiwan and the United States. *Journal of Cross-Cultural Psychology, 31*, 677-702.
- Huntsinger, C. S., Jose, P. E., Larson, S. L. (1998). Do parent practices to encourage academic competence influence the social adjustment of young European American and Chinese American children? *Developmental Psychology, 34*, 746-756.
- Huntsinger, C. S., Jose, P. E., Liaw, F. R., & Ching, W. D. (1997). Cultural differences in early mathematics learning: A comparison of Euro-American, Chinese-American, and Taiwan-Chinese families. *International Journal of Behavioral Development, 21*, 371-388.
- Hyson, M. C, Hirsh-Pasek, K., & Rescoria, L. (1990). The Classroom Practices Inventory: An observation instrument based on NAEYC's guidelines for developmentally appropriate practices for 4- and 5-year-old children. *Early Childhood Research Quarterly, 5*, 475-494.
- Hyun, E. (2003). What does the No Child Left Behind Act mean to early childhood teacher educators?: A call for a collective professional rejoinder. *Early Childhood Education Journal, 31*, 119-125.

- Isenberg, J. P., & Jalongo, M. R. (Eds.). (2003). *Major trends and issues in early childhood education: challenges, controversies, and insights*. New York: Teachers College Press.
- Jambunathan, S., Burts, D. C., & Pierce, S. H. (1999). Developmentally appropriate practices as predictors of self-competence among preschoolers, *Journal of Research in Childhood Education*, 13, 167-174.
- Joffe, C. E. (1997). *Friendly intruders: Child care professional and family life*. Berkeley, CA: University Press.
- Johnson, J. E., & Johnson, K. M. (1992). Clarifying the developmental perspective in response to Carta, Schwartz, Atwater, and McConnell. *Topics in Early Childhood Special Education*, 12, 439-457.
- Kean, J. (1980). Aims and objectives of kindergarten programs in the Auckland metropolitan area. *Australian Journal of Early Childhood*, 5, 32-37.
- Kim, K. (2005). *Teacher beliefs and practices survey: Operationalizing the 1997 NAEYC guidelines*. (Doctoral dissertation, Louisiana State University and Agricultural and Mechanical College, 2005). *Dissertation Abstracts International*, 66, 2486.
- Kim, J., Kim, S., & Maslak, M. A. (2005). Toward an integrative "Educare" system: An investigation of teachers' understanding and uses of developmentally appropriate practices for young children in Korea. *Journal of Research in Childhood Education*, 20, 49-56.
- Knutsen-Lindauer, S. L., & Harris, K. (1989). Priorities for kindergarten curricula: Views of parents and teachers. *Journal of Research in Childhood Education*, 4, 51-61.

- Laosa, L. N. (1982). *Families as facilitators of children's intellectual development at 3 years of age*. In L. M. Laosa & I. E. Sigel (Eds.). New York: Plenum Press.
- Lin, C. H. (2004). Taiwanese early childhood teacher's beliefs about curriculum. (Doctoral dissertation, Indiana University, 2004).
- Lin, E. (2007). Foreign mother's children education in Taiwan. (Master's thesis, Taiwan Normal University, 2007).
- Lin, H., Gorrell, J., & Taylor, J. (2002). The influence of culture and educational experiences on American and Taiwan pre-service teachers' efficacy beliefs. *The Journal of Educational Research*, 96, 37-46.
- Lin, H., Lawrence, F.R., & Gorrell, J. (2003). Kindergarten teacher's views of children's readiness for school. *Early Childhood Research Quarterly*, 18, 225-237.
- Lin, Y. W., & Tsai, M. L. (1996). Culture and the kindergarten curriculum in Taiwan. *Early Child Development and Care*, 123, 157-165.
- Liou, T. H. (2006). Parents' expectations and preconceptions with regard to their young children's learning-Exploring two preschool programs. *Journal of Taiwan Normal University*, 51, 131-158.
- Lu, M. K. (1996). *The study of kindergarten's and daycare center's purposes and foundations*. Taipei; Taiwan: Taipei Ministry of Education.

- Mantzicopoulos, P. Y., Neuharth-Pritchett, S.; & Morelock, J. B. (1994, April). *Academic competence, social skills, and behavior among disadvantaged Children in Developmentally appropriate and inappropriate classrooms*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Marcon, R. A. (1992). Differential effects of three preschool models on inner-city 4-year-olds. *Early Childhood Research Quarterly*, 1, 15-45.
- Marcon, R. A. (1999). Differential impact of preschool models on development and early learning of inner-city children: A three cohort study. *Developmental Psychology*, 35, 358-375.
- Martin, C. A., Frede, E. C., & Sorrell, C. (1995). *Inner city parents' views of teaching styles and practices in child care centers*. Poster session presented at the biennial meeting of the Society for Research in Child Development, Indianapolis, March.
- McGillcuddy-DeLisi, A. V. (1985). The relationship between parental beliefs and children's cognitive level. In I. E. Sigel (Ed.), *Parental belief systems: The psychological consequences for children*. Hillsdale, NJ: Lawrence Erlbaum.
- McMullen, M. B. (1999). Characteristics of teachers who talk the DAP talk and walk the DAP walk. *Journal of Research in Childhood Education*, 13, 216-229.
- McMullen, M., Elicker, J., Wang, J., Erdiller, Z., Lee, S. M., Lin, C. H., et al. (2005). Comparing beliefs about appropriate practice among early childhood education and professionals from the U.S., China, Taiwan, Korea, and Turkey. *Early Childhood Research Quarterly*, 20, 451-464.

- Miller, P. H. (2002). *Theories of Developmental psychology* (4th ed.). New York: Worth Publisher.
- Miller, S. A. (1988). Parents' beliefs about children's cognitive development. *Child Development, 59*, 259-285.
- Ministry of Education. (1999). *Educational statistics in Republic of China*. Taipei, Taiwan: Ministry of Education.
- Ministry of Education. (2005). *Educational statistics in Republic of China*. Taipei, Taiwan: Ministry of Education.
- Ministry of Education. (2006). *Educational statistics in Republic of China*. Taipei, Taiwan: Ministry of Education.
- Ministry of Interior. (2005). *Child care statistics in Republic of China*. Taipei, Taiwan: Ministry of Interior.
- Morado, C. (1987). Kindergarten alternatives for the child who is not ready: Program and policy issues. Paper Presented at the Biennial Meeting of the Society for Research in Child Development. (ERIC Document Reproduction Service, No. ED 282 644)
- Morris, P. (1996). Asia's four little tigers: A comparison of the role of education in their development. *Comparative Education, 32*, 95-109.
- Moshier, L. I. (1997). An investigation of the attitudes child caregivers toward parent involvement in day care centers. (Doctoral dissertation, Vanderbilt University, 1997). *Dissertation Abstracts International, 38*(5-A).

- Mueller, M. (1996). *Immediate outcomes of lower-income participants in Minnesota's universal access early childhood family education: Changing time, changing families-phase II*. St. Paul, MN: Minnesota Department of Families and Learning.
- Osborn, D. K. (1991). *Early childhood education in historical perspective*. Athens, GA: Daye Press, Inc.
- Pan, H. L. W. (1992). Early childhood education in Taiwan. In G. A. Woodill (Ed.), *International handbook of early education*. New York: Garland.
- Powell, D. R. (1995). *Enabling young children to succeed in school*. Washington, DC: American Educational Research Association.
- Piaget, J. (1959). *The language and thought of the child* (M. Gabain, Trans.). London: Routledge and Kegan Paul. (Original work published 1923)
- Piaget, J., & Inhelder, B. (1969). *The psychology of the child*. (F. J. Langdor & J. L. Lunzer, Trans.). London: Routledge & Kegan Paul. (Original work published 1966).
- Roopnarine, J., & Johnson, J. (2005). *Approaches to early childhood education* (4th ed.). Columbus, OH: Prentice Hall.
- Roopnarine, J. L., & Metindogan, A. (2006). Early childhood education research in cross-national perspective. In B. Spodek & O. N. Saracho (Eds.), *Handbook of research of the education of young children* (2nd ed.) (pp. 555-57).
- Seefeldt, C. (2005). *How to work with standards in the early childhood classroom*. New York: Teachers College Press.

- Sherman, C., & Mueller, D. P. (1996, June). *Developmentally appropriate practice and student achievement in inner-city elementary schools*. Paper presented at Head Start's Third National Research Conference, Washington, DC.
- Stevenson, H. W., Lee, S., Chen, C., Kato, K., & Londo, W. (1994). Education of gifted and talented students in China, Taiwan, and Japan. In P. O. C. Ross (Ed.), *National excellence: A case for developing America's talent* (pp. 27–60). Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED372580)
- Stipek, D., Feiler, R., Daniels, D., & Milburn, S. (1995). Effects of different instructional approaches on young children's achievement and motivation. *Child Development*, 66, 209-223.
- Stipek, D. J., Feiler, R., Byler, P., Ryan, R., Milburn, S., & Salmon, J. M. (1998). Good beginnings: What difference does the program make in preparing young children for school? *Journal of Applied Developmental Psychology*, 19, 41-66.
- Stone, A. A., & Litcher-Kelly, L. (2006). Momentary capture of real-world data. In M. Eid & E. Diener (Eds.), *Handbook of multimethod measurement in psychology* (pp. 61-72). Washington, DC: American Psychological Association.
- Thomas, R. M. (2002). *Comparing theories of child development* (6th ed.). Belmont, CA: Wadsworth/Thomson Learning.

- Van Horn, M. L., Karlin, E. O., Ramey, S. L., Aldridge, J., & Snyder, S. W. (2005). Effects of developmentally appropriate practices on children's development: A review of research and discussion of methodological and analytic issues. *The Elementary School Journal, 105*, 325-351.
- Vygotsky, L. S. (1986). *Thought and language*. (A. Kozulin, Trans.). Cambridge, MA: MIT Press. (Original work published 1934)
- Vollmer, F. (1986). The relationship between expectancy and academic achievement: How can it be explained? *British Journal of Educational Psychology, 56*, 64-74.
- White, C. S., & Coleman, M. (2000). *Early childhood education: Building a philosophy for teaching*. Upper Saddle River; Merrill/Prentice-Hall.
- Yamamoto, Y., Holloway, S. D., & Suzuki, S. (2006). Maternal involvement in preschool children's education in Japan: Relation to parenting beliefs socioeconomic status. *Peer Reviewed Journal, 21*, 332-346.
- Yang, M. (1997). *The beliefs of kindergarten teachers, principles, and parents regarding developmentally appropriate practice in early childhood programs in the Republic of China, Taiwan*. Unpublished doctoral dissertation, University of Northern Colorado, Greeley.