

LI, LINLIN, Ph.D. Parents and Teachers' Beliefs about Preschool Inclusion in P.R. China. (2007)

Directed by Dr. Linda L. Hestenes. 147 pp.

The primary purpose of this study was to examine parents of typically developing children and preschool teachers' beliefs about early inclusion in P. R. China, from the perspectives of Bronfenbrenner's Bioecological Theory, Vygotsky's Social-Cultural Theory, and Goodenough's Belief Theory. Parents and teachers' previous experience with individuals with disabilities, parents' socioeconomic status, teachers' age, education, and sense of teaching efficacy, preschool quality, and average socioeconomic status of families in each preschool were considered in relation to parents and teachers' beliefs about preschool inclusion. Participants included 346 teachers and 597 parents across 16 preschools in Northern China. Their participation included completing an online survey to assess their general beliefs about inclusion and perceived benefits and risks of inclusion on children with and without disabilities.

The results revealed that parents and teachers reported moderately positive beliefs about inclusion and perceived benefits for children with and without disabilities. Teachers who had prior experiences with children or adults with disabilities had higher overall positive beliefs about inclusion, higher perceived benefits of inclusion for children with and without disabilities, lower negative beliefs about inclusion, and lower perceived risks of inclusion for children with and without disabilities. Teachers with higher sense of teaching efficacy had more positive beliefs about inclusion and perceived benefits for children with and without disabilities. Teachers with a higher level of education had more positive beliefs about inclusion than teachers with a lower education level.

The results also indicated that parents whose children were in preschools with higher quality had higher overall and positive beliefs about inclusion, higher perceived benefits of inclusion for children with and without disabilities, lower negative beliefs about inclusion, and lower perceived risks of inclusion for children with and without disabilities than parents with children in moderate quality programs. In addition, parents from a preschool in which the socioeconomic status (SES) of families was higher had higher perceived benefits of inclusion on children with disabilities. Teachers from a preschool in which the SES of families was higher had lower reported negative beliefs of inclusion and higher reported perceived benefits for children with and without disabilities than teachers from a lower SES preschool. Implications of these findings for quality inclusive preschool programs, teacher preparation programs, and future research are discussed.

PARENTS AND TEACHERS' BELIEFS ABOUT PRESCHOOL INCLUSION IN
P.R.CHINA

By

Linlin Li

A Dissertation Submitted to
The Faculty of The Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Greensboro
2007

Approved by

Committee Chair

This dissertation is dedicated with great love and appreciation to my parents Xian Li and Jinping Liu, and my husband Xu Zheng for their ongoing love, support, and sense of family. I love you all and am touched by your words and wisdom. No matter where I go in life, you are with me in my heart.

APPROVAL PAGE

This dissertation has been approved by the following committee of the
Faculty of The Graduate School at The University of North Carolina at Greensboro.

Committee Chair _____
Dr. Linda L. Hestenes

Committee Members _____
Dr. Deborah J. Cassidy

Dr. Judith A. Niemeyer

Dr. Catherine Scott-Little

Date of Acceptance by Committee

Date of Final Oral Examination

ACKNOWLEDGEMENTS

I would like to acknowledge my family members, friends and colleagues for their support during my entire graduate career. I would like to acknowledge Dr. Linda Hestenes who directed this dissertation. I really appreciate her generous help, support, and encouragement during the whole process. Thank you for being advisor, mentor, and friend. I would like to also acknowledge and thank Dr. Deb Cassidy, Dr. Judy Niemeyer, and Dr. Catherine Scott-Little for being excellent Committee members. For their suggestions and feedback, I am very grateful. Special thanks to my advisor at Hebei University in P. R. China, Dr. Risheng Zhang for encouraging me to pursue my Ph.D. degree in the United States. I am grateful to all the teachers, parents, and cooperating teachers and colleagues that participated.

TABLE OF CONTENTS

	Page
LIST OF TABLES.....	vii
CHAPTER	
I. INTRODUCTION.....	1
Statement of Problem.....	1
Purpose.....	4
II. REVIEW OF THE LITERATURE.....	6
Theoretical Framework for Beliefs about Inclusion.....	6
Education for Children with Disabilities in China.....	12
Research on Teachers' Beliefs about Inclusion.....	19
Research on Parents' Beliefs about Inclusion.....	33
Research Questions and Hypotheses.....	38
III. METHOD.....	45
Participants.....	45
Measures.....	47
Procedures for Collecting Data.....	50
IV. RESULTS.....	53
Preliminary Analyses.....	53
Exploratory Factor Analyses for MTAI.....	55
Confirmatory Factor Analyses.....	59
Hierarchical Linear Modeling Analyses.....	63
Variables of Hierarchical Linear Modeling Analyses.....	64
Hypotheses Testing.....	65
V. DISCUSSION.....	94
Relationship Between Teachers' Prior Experiences with Disabilities, Education, Age, Sense of Teaching Efficacy, and Beliefs.....	96
Relationship Between Parents' Prior Experiences with Disabilities, SES, and Beliefs.....	101
Relationship Between Average SES and Quality of	

Preschools on Parents and Teachers' Beliefs.....	103
Relationship Between Types of Disabilities and Parents and Teachers' Beliefs.....	106
Limitations.....	109
Conclusions and Implications.....	110
REFERENCES.....	114
APPENDIX A. MY THINKING ABOUT INCLUSION (MTAI).....	124
APPENDIX B. IMPACT OF INCLUSION ON CHILDREN WITH DISABILITIES...127	
APPENDIX C. IMPACT OF INCLUSION ON TYPICALLY DEVELOPING CHILDREN.....	130
APPENDIX D. TEACHERS' SENSE OF EFFICACY SCALE.....	133
APPENDIX E. DEMOGRAPHICS SECTION--- PARENTS.....	136
APPENDIX F. DEMOGRAPHICS SECTION--- TEACHERS.....	142

LIST OF TABLES

		Page
Table 1.	Description of Parents and Teachers in Each Preschool.....	46
Table 2.	Cronbach’s Alpha for Each Measure and Each of the Subscales.....	54
Table 3.	Variance Explained by MTAI.....	57
Table 4.	Structure Coefficient of MTAI (PCF).....	58
Table 5.	Structure Coefficients of MTAI (PAF).....	58
Table 6.	Measures of Fit.....	61
Table 7.	Means and SD for Teacher’s Beliefs about inclusion by Age.....	67
Table 8.	Means and SD for Teacher’s Beliefs about inclusion by Experience with Disabilities.....	67
Table 9.	Means and SD for Teacher’s Beliefs about inclusion by Education.....	68
Table 10.	Covariance Parameter Estimates- MTAI (Unconditional Means Model)....	68
Table 11.	Fixed Effects of Age, Experience with Disabilities, Education, and TSES On MTAI.....	69
Table 12.	Means and SD for Teacher’s Perceived Benefits and Risks for Children with and without Disabilities by Age.....	72
Table 13.	Means and SD for Teacher’s Perceived Benefits and Risks for Children with and without Disabilities by Experience with Disabilities.....	72
Table 14.	Means and SD for Teacher’s Perceived Benefits and Risks for Children with and without Disabilities by Education.....	73
Table 15.	Covariance Parameter Estimates- Perceived Benefits and Risks (Unconditional Means Model).....	74
Table 16.	Fixed Effects of Age, Experience with Disabilities, Education, and TSES on Perceived Benefits and Risks.....	75

Table 17.	Means and SD for Parents' Beliefs about Inclusion by Their Children's Experience with Disabilities.....	77
Table 18.	Covariance Parameter Estimates- MTAI-Parents (Unconditional Means Model).....	78
Table 19.	Fixed Effects of Experience with Disabilities, and SES on MTAI-Parents.....	79
Table 20.	Means and SD for Parent's Perceived Benefits and Risks for Children with and without Disabilities by Experience with Disabilities.....	80
Table 21.	Covariance Parameter Estimates- Parent's Perceived Benefits and Risks (Unconditional Means Model).....	81
Table 22.	Fixed Effects of SES and Experience with Disabilities on Parent's Perceived Benefits and Risks.....	82
Table 23.	Means and SD for MTAI by Types of Disabilities.....	84
Table 24.	Fixed Effects of Types of Disabilities on MTAI.....	85
Table 25.	Means and SD for Perceived Benefits and Risks by Types of Disabilities...	86
Table 26.	Fixed Effects of Types of Disabilities on Benefits and Risks of Inclusion...	87
Table 27.	Fixed Effects- MTAI and Perceived Benefits and Risks (Unconditional Means Model).....	88
Table 28.	Fixed Effects of Preschool Quality and Mean SES on MTAI and Perceived Benefits and Risks for Children with and without Disabilities.....	90
Table 29.	Summary of Findings.....	93

CHAPTER I

INTRODUCTION

Statement of Problem

With the increase in diverse populations in the United States, society members become more likely to accept the differences of ethnicity, language, economic, and family status. Inclusion of children with disabilities in preschool settings with children who do not have disabilities is a reflection of such acceptance (Odom, Peck, Hanson, Beckman, Lieber, Brown, Horn, & Schwartz, 1996). In order to help each child fulfill his/her own unique potential, inclusion is not only about being in the same setting, but also about having equal opportunities to participate and be involved in activities, events, and learning. A series of laws regarding the rights of young children with disabilities provides legal support of inclusion and the foundation for further investigation of inclusion in the United States (e.g. the Education for All Handicapped Children Act of 1975 [PL 94-142, 1975], the Education of the Handicapped Act Amendments of 1986 [PL 99-457, 1986], the Individuals with Disabilities Education Act [IDEA] of 1990 [PL 101-476, 1990], the IDEA Amendments of 1991 [PL 102-119, 1991], the IDEA Amendments of 1997 [PL 105-17, 1997] (Guralnick, 2001), and the IDEA Amendments of 2004 [PL 108-446, 2004]).

In the United States, with the support of legislation for inclusion, the role of teachers and parents of young children has changed. Teachers have responsibilities for

providing inclusive learning opportunities. Parents have been recognized as having a moral and legal right to work as partners with professionals in the education of their children. Correspondingly, researchers in the US and other developed countries have been working toward providing a collaborative model so that parents, teachers, and community agencies may develop programs jointly to meet the needs of all children.

In fact, the idea that education at its best is inclusive and comprehensive has drawn globe attention. Article 28 of the United Nations (1989) *Convention on the Rights of the Child* asserts children's fundamental rights in health care, education and legal, civil and social services. The UN Convention stresses the principles of non-discriminatory practices which protect the right of the most vulnerable and disadvantaged children to education and requires that this be provided on the basis of equal opportunity. Article 23 of the United Nations (1989) *Convention on the Rights of the Child* particularly identifies children with disabilities. In seeking to protect children with disabilities by setting standards in health care, education and training, social services, information sharing, and opportunities for employment, the Convention stresses the principle of "the fullest possible social integration and individual development". The onus is on countries, especially on developing countries, to recognize the special needs of children with disabilities and their families and develop appropriate and affordable practices to "ensure dignity, promote self-reliance and facilitate the child's active participation in the community". This concept of rights for children leads to the belief that promoting inclusive practices in the early years is a direct response to the UN Convention.

Compared with the United States, inclusive education in P. R. China falls far behind, yet professionals and families still can see the progress of special education in P. R. China from its legal mandate. In 1951, with the implementation of the *Decision on Education Reform*, special education had become an important component of the national education system of P. R. China (Qian,1999). From 1949 until the early 1980s, the implementation of special education in special schools has been the main form of education for children with disabilities in P. R. China. With the enactment of the *Compulsory Education Law* in 1986, in particular, the implementation of *Protection of the Disabled Persons' Law* in 1990, the *Education for Persons with Disabilities Bill* in 1994, and the *Revised Compulsory Education Law* in 2006, educating children with disabilities in ordinary schools and in regular classrooms has become one of the basic principles for the development of special education.

It is obvious that national educational policies show respect for the rights of children with disabilities in P. R. China. However, in reality many children with disabilities are still not included in regular preschools. Since the success of inclusive education is influenced by the current values and beliefs about all related individuals, such as the beliefs about teachers and the parents (Smith & Smith, 2000), in this study, I am planning to investigate Chinese parents and teachers' beliefs about preschool inclusion. Through this study, I hope to shed some new light on how to implement high quality inclusive programs in China.

Purpose

The parents and teachers' beliefs in the United States influence many aspects of the school system, which impact the success of the inclusive program (Guralnick, 2001). To investigate teachers' beliefs about inclusion, researchers have used a number of different methods, such as surveys, in-depth interviews, and focus group studies. These studies not only reveal a broad sense of how many teachers agree with inclusion, but also detect what are perceived benefits and challenges of inclusion (Eiserman, Shisler, & Healey, 1995; Lieber, Capell, Sandall, Wolfberg, Horn, & Beckman, 1998; Wesley, Buysse, & Tyndall, 1997). These findings in the United States reveal that most teachers have positive beliefs toward inclusion, and they believe that inclusion benefits both children with and without disabilities. However, many teachers feel that they are less prepared to serve children with disabilities, especially children with severe disabilities. Teachers who have experience working with children with disabilities and more supports and resources are more confident and willing to include children with disabilities. Researchers who study parents' beliefs about inclusion have utilized both qualitative and quantitative methodologies to explore these ideas (Bennet, DeLuca, & Bruns, 1997; Guralnick, 1994; Peck, Carlson, & Helmstetter, 1992). These studies generally indicate that both parents of children with and without disabilities show positive beliefs toward inclusion. However, parents also report their concerns of inclusion in terms of the quality of programs, such as high child-staff ratios and a lack of training for staff. In addition, researchers also indicate that some factors like an individual's previous experience with

disabilities and the types of disabilities a child exhibits influence their beliefs about inclusion.

In terms of beliefs about inclusion in P.R. China, most research focuses on elementary school teachers' beliefs about inclusion (Chen, Chen, & Peng, 1994; Wei & Yuen, 2000; Peng, 1999, 2000, 2003). One study in P. R. China did study preschool teachers' beliefs about inclusion (Zhang, 2006). Also, just a few studies have analyzed parents' beliefs about inclusion (Niu, Liu, & Tian, 2005). Considering the importance of education for children with disabilities and the limited research on the beliefs about early inclusion, this study is designed to analyze the beliefs about inclusion of parents and teachers of preschool children in P. R. China.

The following chapters will describe the theoretical bases of the study, present general information on the current status of education for children with disabilities in P.R. China, review the current literature on parents and teachers' beliefs about inclusion, provide the methodology that used in this study, report the findings, and discuss the limitation of this study. In addition, implications and suggestions for future studies will be provided.

CHAPTER II

REVIEW OF THE LITERATURE

Theoretical Framework for Beliefs about Inclusion

One of the biggest contributions of Lev Vygotsky to psychology, human development, and education is that he discovered that human behavior should not only be understood from the biological aspects but also from the social cultural explanation of human activity. Vygotsky was always intensely concerned with the educational implications of his theory. One of his contributions to education is related to the education of children with disabilities. In his view (1987),

Any physical handicap, be it deafness, blindness or inherent mental retardation, not only changes a person's attitude toward the world, but first and foremost affect his relationship with people. ... Human beings do not have simple, asocial, direct communication with the world. A loss of vision or hearing means, therefore, first and foremost the failure of serious social functions, the degeneration of societal ties, and the disruption of all behavioral systems. (p. 76-77).

Therefore, from Vygotsky's point of view, a disability is perceived of as an abnormality only when and if it is brought into the social context. The primary problem of a disability is not the biological impairments, but its social abnormality in behavior. Expectations and attitudes of the society influence the possibility of children with disabilities gaining socio-cultural knowledge, experience, and the opportunity to acquire cultural tools and symbols. Therefore, serving children in the least restricted environment

is the essence of special education, which provides people the chance to change negative social values and beliefs about children with disabilities.

Belief, based on the explanation of Webster's Dictionary, is something believed; especially, a tenet or body of tenets held by a group. Beliefs are learned within the context of culture (Goodenough 1981). Individuals' roles, responsibilities, and relations with each other in specific cultural context are influenced by their beliefs. Beliefs that are recognized as true are valued by the culture. Culture, according to Tudge, Lee, and Putnam (1998), "...is one that includes a set of values, beliefs, practices, institutions, and tools that differentiate one group from another, and which are passed on (or co-constructed anew) from generation to generation" (p.77). Culture, subculture, demographics, and so on refers to any group "with particular reference to the developmentally instigative belief systems, resources, hazards, lifestyles, opportunity structures, life course options and patterns of social interchange" (Bronfenbrenner 1993, p. 25). Cultures have values and practices related to educating children with disabilities. Certain values, beliefs, and behaviors are encouraged, while others are considered inappropriate or undesirable. Therefore, in order to understand parents and teachers' beliefs about inclusion, it is important to consider the culture in which beliefs originate. For instance, how Chinese national mandate will affect parents and teachers' beliefs about inclusion; how the larger context of community or school system will play a role in parents and teachers' beliefs about inclusive services with respect to the diversity of children's abilities; and how the quality of the preschool and the socioeconomic status of families in this preschool could influence parents and teachers' beliefs about inclusion.

From Vygotsky's perspective (1978), individuals and cultural-historical development does not occur in isolation. Society provides the interaction that plays the fundamental role in the development of cognition. Cognitive development is rooted in social interaction. As was stated by Vygotsky (1978), "Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals" (p.57). Viewing the cultural world as the source of the development of higher mental functions, Vygotsky (1929) emphasized that cultural development does not create anything over and above what potentially exists in the natural development of a child's behavior. Culture, generally speaking, does not produce anything new apart from what is given by nature. But it transforms nature to suit the ends of human beings. Therefore, besides the culture in which beliefs originate, it is also important to detect variables that influence individual differences of beliefs, such as individuals' past experience, ages, education, and so on.

Bronfenbrenner and Morris (1998) reinforce Vygotsky's viewpoint by insisting that developmental studies include the characteristics of developing individuals. In the article "Ecology of Developmental Processes," Bronfenbrenner and Morris (1998) point out that developmental studies that limit the nature of integrated levels of developmentally relevant environments will be incomplete, until the studies include the characteristics of the developing individuals. The characteristics of the developing

individuals, according to Bronfenbrenner and Morris (1998), include forces, resources, and demands. These three types of personal characteristics have effects on the future development through their interactions with their immediate environment in the course of activities. Bronfenbrenner and Morris (1998) view force characteristics as shapers of development. They pointed out that “the characteristics of the person most likely to influence future development would be active behavioral dispositions that can set proximal processes in motion and sustain their operation, or-conversely-actively interfere with, retard, or even prevent their occurrence” (Bronfenbrenner & Morris 1998, p. 1009). Force characteristics involved in individual agency are the “developmentally-instigative characteristics”, such as individuals’ “directive beliefs” (personal values and beliefs), and their goals and motivations (Bronfenbrenner, 1993; Bronfenbrenner & Morris, 1998). Resources characteristics, according to Bronfenbrenner and Morris (1998), relate to mental and emotional resources at a specific developmental stage such as past experience, skills, and education. Demand characteristics “invite or discourage relations from the social environment of a kind that can foster or disrupt the operation of proximal process” (Bronfenbrenner & Morris 1998, p. 1011). Those characteristics, such as age, gender, physical handicaps, may have effects on the goals, values, and expectations that others have for that individual.

In terms of context, Bronfenbrenner (1993) did not limit it to children’s immediate setting but were beyond it. He offered a conceptualization of contexts as a hierarchy of systems: microsystem, mesosystem, exosystem, and macrosystem. The microsystem is the immediate context in which the proximal processes occur. Developing

individuals are situated in the microsystem where they can both influence and be influenced by others. Therefore, to understand development by using an ecological perspective, the microsystem is a very important context. Another important context is the macrosystem. Bronfenbrenner (1993) defined the macrosystem as any group “with particular reference to the developmentally instigative belief systems, resources, hazards, lifestyles, opportunity structures, life course options and patterns of social interchange” (p. 25). He argued that we need to understand the particular macrosystem where these phenomena take place. Also, to study the psychological meaning of processes, persons and contexts, “every program of research on human development should include, at an early stage, a contrast between at least two macrosystems most relevant to the developmental phenomenon under investigation” (Bronfenbrenner, 1993, p. 39). The other two layers of contexts (mesosystem and exosystem) also have effects on the individuals’ development. The mesosystem links two or more microsystems; while the exosystem consists of contexts that do not contain the developing individuals, and have indirect effects on individuals’ development. The current study will focus primarily on the microsystem of parents and teachers’ beliefs about inclusion as a function of both teacher/parent and preschool’s characteristics. Information on the macrosystem of China’s educational system will be provided to better understand the Chinese culture in which the parents and teachers live, which may influence the parents and teachers through social norms and traditions.

Goodenough’s viewpoint also reflected that two levels of beliefs, individual and cultural levels, influenced how an individual feels and makes decisions (Goodenough,

1981). One is private beliefs, or the beliefs on a personal level. The other is declared beliefs or the beliefs on a public level. Beliefs work as a mediator in decision making. Beliefs cause variation in the dependent variable (decision making), and themselves are caused to vary by the independent variable (e.g. a specific situation that an individual is facing). For instance, when individuals are more likely to be motivated by their private beliefs towards inclusion, they would make decisions and act in accordance with their personal values. On the other hand, when individuals are more influenced by cultural and social expectations towards inclusion, declared beliefs will have more effect on their potential behaviors and attitudes toward inclusion.

In terms of parents and teachers' beliefs about inclusion, these individuals bring with them their own characteristics into the activities in preschool or at home. For instance, parents and teachers bring their private values and beliefs about preschool inclusion into their interactions with each other and with young children. Their previous experience with children or adults with disabilities, their levels of education, and their knowledge of preschool inclusion and disabilities may also have an effect on their values, beliefs, and actions toward preschool inclusion. It is important to remember that personal characteristics are not just the characteristics of the developing individuals but also the characteristics of all parties involved in interpersonal interaction (Bronfenbrenner & Morris, 1998). If we view teachers and parents of preschoolers as developing individuals, in order to understand parents and teachers' beliefs about inclusion, the characteristics of young children who engage in interpersonal activities with teachers and parents should also be considered (e.g., age, gender, physical abilities, etc).

In the study, both personal and public levels of beliefs will be considered to allow for an in-depth examination and exploration of parents and teachers' beliefs about early inclusion in P.R. China. At a personal level, parents and teachers' individual characteristics (experience with children or adults with disabilities and education), ages of children they are serving, and types of disabilities of children who may enrolled in preschools will be studied with relation to parents and teachers' beliefs about inclusion. At a public level, the quality of a preschool and the socioeconomic status of families in this preschool will be examined. The background of culture will be influential at both levels.

Although this study does not design to specifically examine the effect of national laws and policies on parents and teachers' beliefs about inclusion, it is important to provide a general description of education for children with disabilities in P. R. China, including information regarding to the population of children with disabilities, traditional perceptions of disabilities, and legislation of educating children with disabilities. By doing so, the information will provide a cultural and historical context in which parents and teachers in P. R. China are expected to perform.

Education for Children with Disabilities in China

Population of Children with Disabilities in China

Based on the first national survey of people with disabilities in 1987, China Disabled Persons Federation (CDPF), claims that persons with disabilities comprise 5 percent of the Chinese population or around 60 million people. Among those individuals with disabilities, about 20.6 million are people with hearing/language impairments, about

11.8 million are people with mental retardation, 8.8 million are people with physical impairments, 8.8 million are people with visual impairments, 2.3 million are people with mental disorder, and 7.8 million people have multiple disabilities or other types of disabilities.

However, Qian (1999) argued that the number of children with disabilities in P.R. China is underestimated. On one hand, China's view of special education is a narrow concept which refers to the education of children with physical and mental disabilities (Qian, 1999). On the other hand, an international definition of special education means the education for children with special needs that include children with dyslexia, learning disabilities, emotional disorder, speech impairments, behavior disorder, communication disabilities, mental retardation, hearing impairments, visual impairments, physical impairments, etc. Therefore, among 200 million children in P. R. China, there should be 20 million children with disabilities, based on the international definition of special education (Qian, 1999). In addition, the identification of disabilities is mainly based on a diagnosis by doctors. Many special schools only accept children with diagnosed severe disabilities. Since the diagnosis of disabilities is not systematic and a large number of children with disabilities are under identified in P.R. China, it is urgent for children with disabilities to get suitable education in typical schools. As was mentioned by Zhang and Chen (2002), to meet the need of educating young children with disabilities, the government encourages the development of three types of schools: special schools, special classrooms in typical schools, and inclusive schools. However, the current situation of education for children with disabilities is not promising. In most cases,

children with only *physical* disabilities are more likely to receive an inclusive education. Children with mental disabilities, hearing/language impairments and visual impairments are more likely to receive special education in self-contained special schools, such as schools for the mentally retarded, schools for the mute and deaf, and schools for the blind (Chen, 1995). Therefore, in order to provide appropriate education for all children, it is important to understand people's beliefs about inclusion and their perceptions of disabilities.

Traditional Perceptions of Individuals with Disabilities

According to Lee (1996), many Chinese people in rural areas believe that mental health is related to self-discipline, exercise of power and the avoidance of morbid thoughts; while emotional problems are caused by weak character (Cited in Liu, 2001). Mental illness is also thought to be linked to evil spirits or punishment from god(s). Other researchers, such as Lam (1992), indicate that because of the misunderstanding of or lack of knowledge about disabilities, some Chinese view unbalanced diet, grief or bad temper during pregnancy as possible causes of disabilities in newborns (Cited in Liu, 2001). Because the families' dread of exposure to criticism and stigma is attached to disabilities, having a child with a disability leads to feelings of shame and guilt in the families of children with disabilities. Individuals with a disability may feel guilt toward their families and their ancestors. Their families may also feel shame towards the individuals with a disability and their ancestors. Therefore, the conflicts and barriers for acceptance among family members are generated from these feelings (Lam, 1992).

Although both Chinese culture and American culture often have shame and guilt associated with disabilities, Chung (1996) pointed out that the Eastern culture emphasizes the *cause* of disabilities, whereas the West culture usually emphasizes the *solution* to treatment for the disabilities (Cited in Liu, 2001). Just as was mentioned by Chan, Hedl, Parker, Lam, Chan, and Yu (1988), Chinese students were more positive toward individuals with physical disabilities than toward individuals with developmental disabilities and mental disorders. In addition, Chinese people show more acceptance and sympathy toward people who have an *acquired* injury that causes physical limitations than toward people who have a congenital physical or mental disorder (Cited in Wang, Chan, Thomas, Lin & Larson, 1997). Although traditional perceptions of individuals with disabilities are barriers of inclusive education, the legal mandate plays an important role in protect the right of education for individuals with disabilities.

Legislation Related to Inclusion

In P.R. China, legislation regarding the rights of children with disabilities was enacted under the *Compulsory Education Law* in 1986. This law provided for delivery of self-contained special schools or classrooms in elementary and junior high school for children with visual impairments, hearing impairments and mental retardation. The *Revised Compulsory Education Law* in 2006 emphasized that typical schools should provide integrated education for children with disabilities who have the abilities to study in typical schools. Schools should also provide assistance for the learning and rehabilitation of children with disabilities.

The *Protection of the Disabled Persons' Law* in 1990 specified the education for preschoolers with disabilities. Preschools should admit children with disabilities who have the abilities to get a typical education. Self-contained special schools should establish special preschool classrooms. In addition, typical preschools and welfare institutions for children with disabilities should find self-contained special classrooms for those who do not have the ability to study in typical preschools. The *Education for Persons with Disabilities Bill* in 1994 again clarified that the following education systems have responsibilities to educate young children with disabilities. They are self-contained preschools, typical preschools, welfare institutions for children with disabilities, rehabilitation institutions, Pre-Kindergarten and Kindergarten classrooms in typical elementary schools, and preschool classrooms in self-contained special schools. This law also argued that the education of young children with disabilities should combine with care and rehabilitation.

The *Ninth Five-Year Plan* (1996-2000) continued to support including children with disabilities in typical preschool, Pre-Kindergarten, and Kindergarten classrooms in elementary schools. Additionally, this plan mentioned that special preschool classrooms, special schools, and preschool classrooms in welfare institutions should work with families to implement early childhood education and early rehabilitation. The *Interim Regulation of Special Education* in 1998 pointed out that self-contained special schools should play a leading role and provide coaches for typical schools in implementing inclusive education for children with disabilities. This regulation also underscored that schools should provide children and their families with rehabilitation services and

information. Special schools should keep in touch with communities, local governments, typical schools, and other units, in order to provide optimized educational environments. In addition, to protect preschool education for children with disabilities, the *Tenth Five-Year* (2001-2005) highlighted special education in rural areas and the education and rehabilitation of young children under 3 years old. The *Eleventh Five-Year Plan* (2006-2010) further supported children with visual, hearing, speech, and mental disabilities enrolling in preschools, elementary schools, and junior high schools. This plan also argued that the ratio of enrollment of children with disabilities should be equivalent to the ratio of enrollment of typically developing children. For example, if 90% of typically developing children are enrolled in school, then 90% of children with disabilities should also have the chance to be enrolled. In the past, a much lower percentage of children with disabilities were allowed to be in schools.

It is unquestionable that national educational laws show respect for the right of children with disabilities in P. R. China. From a historical perspective of special education in P. R. China, one can see how the legislation related to the education of children with disabilities becomes more specific for children at different ages with different economic situations, how it changes to provide services and supports to young children with disabilities with typically developing children in inclusive settings, and how it begins to emphasize the importance of families and communities.

Although in reality many young children with disabilities are still not included in regular preschools in P.R. China, the legislative intent regarding the education for children with disabilities is a means to implement equal education for all children. With

the support of legislation in special education, the enrollment of children with disabilities increased greatly. The summary of the achievement during the *Tenth Five-Year Plan* indicated that by the end of 2005, there were 1,662 special schools, 2,700 special classrooms, and 19,000 rehabilitation centers in P. R. China. Eighty percent of deaf children, children with visual impairments, hearing impairments, and mental retardation were enrolled in schools by 2005 (spe-edu.net).

The summaries of achievement during the *Tenth Five-Year Plan* in different Provinces also reflect the improvement of special education in China (spe-edu.net). For instance, by the end of 2005, 36,000 students with disabilities were enrolled in 152 special schools in Shan Dong Province (Northern China). Eighty-four percent of children with visual impairments, hearing impairments, and mental retardation were enrolled in special schools in Shan Dong Province. The ratios of enrollment of children with visual impairments, hearing impairments, and mental retardation enrolled in inclusive or self-contained elementary and junior high schools were 75%, 80%, and 80% respectively in An Hui Province (Southern China). In Chong Qing (Western China), 84% of children with visual impairments, hearing impairments and mental retardation were enrolled in inclusive or self-contained elementary and junior high schools. In Jiang Su Province (Eastern China), 38,155 students with disabilities were enrolled in 109 special schools and 4,761 inclusive classrooms. In addition, there were 24 inclusive preschools and 56 inclusive pre-kindergarten and kindergarten classrooms that accepted children with disabilities in Jiang Su Province. In Shang Hai (Eastern China) 68% of preschoolers with

disabilities and 98.75% of elementary school and junior high school students with disabilities got their formal education in inclusive or self-contained classrooms.

It is obvious that there is still a portion of children with disabilities, around 20% of children that cannot enroll in either inclusive or self-contained classrooms or schools in P. R. China. More attention is paid to the education of the elementary and junior high school students with visual impairments, hearing impairments, and mental retardation than other disabilities. It is likely that children with other disabilities are not represented in these numbers. Thus, when considering all types of disabilities, there are probably far fewer children with disabilities in schools than are shown in these proportions. The legislation regarding the education of children with disabilities specified that children with disabilities should get the same education with typically developing children of the same age. In order to enroll the large population of children with disabilities in typical schools, it is important to understand parents and teachers' beliefs about inclusion.

Research on Teachers' Beliefs about Inclusion

Research in U.S.

In U.S. studies, teachers' beliefs about inclusion have been viewed as a critical factor in effectively implementing inclusive education (Gallagher, 1997; Soodak, Podell, & Lehman, 1998). Teachers' beliefs, as described by Clark and Peterson (1986), are a dimension of teachers' thought processes. These thought processes result in planning, interactive thoughts, and decision-making related to the implementation and evaluation of teaching. Their beliefs can influence their intentions, decision-making, and consequently, teacher behavior within the inclusive settings (Nespor, 1987; Pintrich, 1990). Researchers

have used a number of different methods, such as surveys, in-depth interviews, and focus group studies to investigate teachers' beliefs about inclusion. The results not only reveal a broad sense of how many teachers agree with inclusion, but also detect the benefits and challenges of inclusion (Eiserman, Shisler, & Healey, 1995; Lieber, Cyapell, Sandall, Wolfberg, Horn, & Beckman, 1998; Wesley, Buysse, & Tyndall, 1997).

Gemmell-Crosby and Hanzlik (1994) surveyed 71 teachers in community preschools who were teaching or had taught children with disabilities to determine their attitudes toward serving children with disabilities. They found that teachers' attitudes toward inclusion had a positive relationship with their feelings of competence in teaching children with disabilities, support by related services providers, and satisfaction with the training received. However, teachers believed that they were less willing and able to serve children with more severe disabilities.

Eiserman, Shisler, and Healey (1995) studied teachers' general beliefs about inclusion. Generally speaking, 135 teachers in this survey showed positive perceptions of including children with disabilities in typical preschool. Like the teachers in Gemmell-Crosby and Hanzlik (1994) study, these teachers were more competent and willing to include children with mild disabilities and less competent and willing to include children with autism and multiple disabilities. Teachers also identified that resources, such as training, consultation with special education professionals, classroom assistants, and additional materials and equipment, would be important to better serve children with disabilities.

With a sample of 400 childcare teachers from home-based and center-based programs, Dinnebeil, McInerney, Fox, and Juchartz-Pendry (1998) assessed teachers' beliefs about inclusion. Center-based teachers were more confident serving children with disabilities than home-based teachers. In addition, 70% of teachers reported that lack of knowledge was one of the barriers that prevented inclusion and 29% of teachers mentioned lack of confidence as a barrier.

An in-depth study using focus group methodology by Wesley, Buysse, and Tyndall (1997) revealed more barriers regarding inclusion. In this study, 32 professionals including early childhood educators, early childhood special educators, early interventionists, and related services providers reported their perspectives about barriers to inclusion. Content analysis of data indicated that teacher attitudes, large class sizes, lack of training, problems with funding and transportation, and a lack of high-quality early education programs were barriers to inclusion.

The case study by Smith and Smith (2000) indicated similar concerns for teachers in terms of inclusion. These concerns included training (teacher preparation, graduate classes, and in-service training for both regular and special education personnel), class load (class sized, number of children with disabilities, and severity and types of disabilities), support (in-class support by the regular education paraprofessionals, collaboration with special education specialists, and support by administration), and time (planning and adjustment to lessons, and collaboration with others).

Another qualitative study using group interviews, individual interviews, and reflective writings revealed preservice teachers' beliefs about inclusion (Proctor &

Niemeyer, 2001). Content analysis of data suggested that preservice teachers had positive beliefs about inclusion, although their beliefs were mediated by the context of the inclusion. Preservice teachers viewed campus childcare centers as more ideal environments for inclusion than public schools, because campus childcare centers were child-centered, whereas public schools focused on academic achievement. Similar to the findings of Wesley, et al. (1997) and Smith and Smith (2000) studies, preservice teachers also identified administrative supports, lack of resources, and lack of time to work with all children as barriers of successful inclusion. In addition, personnel support, such as supervisors' support, was also viewed as an important factor in preservice teachers' positive beliefs about inclusion.

Stoiber, Gettinger, and Goetz (1998) surveyed different groups of professionals serving children with special needs. In this survey, 39 early childhood special educators (ECSE), 35 early childhood educators (ECE), 35 paraprofessionals, and 19 support service personnel reported their beliefs about inclusion on three dimensions. The first dimension was core perspectives related to the rights of children with disabilities and best practices for educating children with disabilities. The second dimension was expected outcomes of inclusion which emphasized the expectations on educational practices, results, and outcomes. The third dimension was classroom practices which reflected the impact of inclusion on classroom life and actual instructional practices. The results revealed that teachers showed more positive beliefs about classroom practices than did paraprofessionals; ECSE teachers were more positive than paraprofessional on their beliefs about core perspectives. Additionally, participants with 15 years of experience

had more positive beliefs about including children with mild and moderate cognitive disabilities than did those with 1 to 4 years of experience. Participants with master's degrees had higher preparation for working with children with learning disabilities, mild cognitive disabilities, brain injury/neurological disorders, and speech and language disorders than did those with high school or associate's degrees. Like the teachers in Eiserman, et al. (1995) and Gemmell-Crosby and Hanzlik (1994), participants were more willing to include children with mild disabilities and least prepared to serve children with autism, neurological disorders, and vision or hearing disorders.

To understand teachers' affective responses to including children with different types of disabilities and the relation between instructional practices and receptivity to inclusion, Soodak, Podell, and Lehman (1998) surveyed 188 general educators. More unreceptive affection, such as being anxious, nervous, or scared, was associated with including children with mental retardation, learning disabilities, and behavior disorders than with including children with hearing impairments and physical disabilities. Teachers felt anxious about including children with mental retardation. They also felt fearful but not hostile toward including children with physical disabilities. In addition, teachers showed more positive beliefs about inclusion if they used differentiated instructional practices and had higher sense of teaching efficacy; whereas, they were hostile to the inclusion if their sense of teaching efficacy was low.

To examine teachers' general beliefs about inclusion and their perceptions of training needs, Hadadian and Hargrove (2001) surveyed 202 preschool teachers. Most teachers (90%) agreed with the attitude of integrating children with disabilities. Most

teachers (89%) indicated that two areas of in-service training were most important: One is how to adapt curriculum for children with special needs (89%); the other is how to incorporate children with special needs into daily activities (84%). In order to receive training, teachers preferred workshops/conferences/seminars. In addition, teachers' own characteristics, such as having a teaching license or not, education, and years of experience were related to their beliefs about inclusion. Licensed teachers and teachers with direct working experience with children with special needs tended to agree more with the practice of inclusion. Teachers with 4 or more years of post-high-school education showed a more positive attitude to consult and collaborate with early interventionist than those with less than 4 years of post-high-school education. Although 68% teachers thought that children with disabilities could disrupt the classroom routines and 63% felt that the inclusion created additional burdens for them, many teachers believed that both children with disabilities (76%) and typically developing children (90%) would benefit from inclusion.

To investigate teachers' beliefs about benefits of inclusion to typically developing children, Peck, Carlson, and Helmstetter (1992) surveyed 95 teachers. Teachers strongly agreed that typically developing children would become more aware of the needs of others, show more acceptances to differences, and feel less discomfort around people with disabilities. There was only mild agreement among teachers about learning to be more helpful, having fewer stereotypes, and developing better self-concepts.

In order to have a deeper understanding of teachers' beliefs about benefits of inclusion for typically developing children, Marcant (1995) applied interview and focus

group methods. Analysis of reports by 10 teachers in inclusive public school programs for 3- and 4-year-old children indicated that all teachers felt committed to inclusion because inclusion supported the families and children's growth and development. The opportunity to be models for and helpers to children with disabilities was viewed as a big benefit of inclusion for typically developing children. However, teachers reported some challenges to successful inclusion like their abilities to individualize instruction and to ensure positive interactions of all children. They also expressed concerns of sufficient time for effective planning, communicating with parents, and paperwork, as well as support from administration.

To study the benefits for both typically developing children and children with disabilities, Buysse, Wesley, Keyes, and Bailey (1996) interviewed 52 early childhood educators working in inclusive community-based childcare settings. Benefits identified by teachers for children with disabilities included preparation for the real world, independence, and promotion of learning. Similar to the finding of Peck, et al. (1992), teachers felt that typically developing children benefit most by having the opportunity to learn about individual differences. Although teachers felt comfortable including children with disabilities into their classrooms, they were less willing to serve children with severe disabilities. In terms of drawbacks to inclusion, teachers mentioned the insufficient training to work with children with disabilities.

The finding by Lieber, Capell, Sandall, Wolfberg, Horn, and Beckman (1998) were consistent with previous studies. A content analysis of 6 ECSE teachers and 23 ECE teachers' interviews revealed that the opportunity to learn about and accept differences,

to learn empathy, tolerance and compassion for others, and to help others and taking on a teaching role were the benefits of children without disabilities in inclusive settings.

Through observing, modeling, and interacting with children without disabilities, children with disabilities would benefit in terms of acquiring cognitive, linguistic, and social skills.

In addition, teachers consistently agreed that “inclusion is a system in which all participants are equal parts of the whole” (p. 93). However, teachers differed in beliefs about individual choices for activity or level of participation. Teachers who believed that the group consisted of individuals would allow and respect each individual’s different contribution to the group; whereas teachers who felt that a group norm needed to be followed by all individuals would expect that children with and without disabilities should all fit in the group.

Research in Canada and Europe

In addition to the studies by researchers in the United States, a substantial number of studies have been done by researchers in other countries. Stanovich and Jordan (1998) studied Canadian teachers’ beliefs about inclusion in the relation to effective teaching.

Like the teachers in the Soodak, et al. (1998) study, teachers with a higher sense of teaching efficacy had more positive beliefs about inclusion than those with a lower sense of teaching efficacy.

In a study by Clough and Nutbrown (2004), 94 preschool teachers from England, Northern Ireland, Scotland, and Wales reported their viewpoint of inclusion. Although most teachers showed positive beliefs about inclusion, they thought successful inclusion also depended on children’s types of disabilities, support personnel, and adequate

resources. A similar finding was revealed in Nutbrown and Clough's (2004) study. One hundred and thirteen European early childhood educators from Denmark, Greece, Italy, and the UK participated in the survey. Teachers were willing to include children with disabilities in their classroom. They mentioned that children with learning difficulties and mobility problems would not disrupt the class. They did not think there were adequate resources or support to include children with severe autism. Although most teachers admitted that inclusion would promote tolerance in typically developing children and enhance the learning of children with disabilities, some teachers still insisted that children with disabilities should be included only if they would not disturb typically developing children.

To study teachers' beliefs about necessary factors and availability of supports for a successful inclusion, Kucuker, Acarlar, and Kapci (2006) surveyed 183 preschool teachers from Turkey. Teachers identified that their knowledge and skills regarding implementation of inclusion, attitudes of others, material and physical resources, additional personnel, training opportunities, class size, and family participation were necessary factors for successful inclusion. Teachers with a bachelor's degree were more likely to view the above factors as necessary for successful inclusion than the teachers with pre-bachelor's degree. However, teachers reported that generally they did not get enough of these supports. In addition, teachers with bachelors and pre-bachelor's degrees had more concerns about availability of knowledge-skills and material supports for successful inclusion than teachers with a high school degree. In general, teachers with more than 15 years of teaching experience had lower scores on teachers' view of

necessity and availability of the supportive factors than teachers with less than 4 years of teaching experience.

The study by McConkey and Bhlirgri (2003) particularly analyzed preschool teachers' beliefs about including children with autism in the UK. Researchers found that almost all teachers were committed to the philosophy of including children with autism in typical preschools. Although teachers reported the most frequent contact with professionals who were speech and language therapists, they felt limited support, help, or advice from the professionals. They hoped to receive more support from speech and language therapists, psychologists, social workers, and health visitors. Some other barriers to including children with autism mentioned by teachers were insufficient staffing, inadequate or no training to meet all children's needs, and lack of knowledge and skills to serve children with autism.

Sadler (2005) studied teachers' beliefs about inclusion of children with speech and language difficulties in the UK. Again, teachers showed positive attitudes toward inclusion of children with speech and language difficulties. In terms of the benefits of inclusion for children with speech and language difficulties, teachers mentioned peer influences on learning, access issues (e.g. equal opportunity), and social/psychological considerations (e.g. socialization with peers). However, teachers also stated that they could not give these children sufficient individual attention because of the class size, limited knowledge, and inadequate resources. Eighty-eight percent of teachers considered that they had little or no knowledge to serve these children. Sixty-three percent of teachers felt limited confidence in meeting these children's needs.

Overall, these findings revealed that most teachers had positive attitudes toward inclusion. They believed that inclusion would both benefit children with and without disabilities. However, many teachers felt that they were less prepared to serve children with disabilities, especially children with severe disabilities. Teachers who had more supports and resources, more experience with children with disabilities, and a high sense of teaching efficacy were more confident and willing to include children with disabilities. In terms of needed supports for successful inclusion, teachers often mentioned the administrative support, resources, and training.

Research Focusing on Primary Schools in P. R. China

In P. R. China, most studies on teachers' beliefs about inclusion focus on teachers in primary schools and special schools. Chen, Chen, and Peng (1994) surveyed 39 primary school teachers. Although 44% of teachers showed willingness to get training in order to serve children with mental retardation, 56% of teachers believed that there were more disadvantages than advantages to including children with mental retardation in typical schools. More than 50% of teachers thought that the barriers to successful inclusion were related to administrative support, other teachers, parents, and society's support, and teachers' knowledge, skills, and experience.

In a study by Liu, Du, and Yao (2000), 357 primary school teachers reported their beliefs about including children with different types of disabilities. The results indicated that teachers were more willing to include children with visual impairments and physical disabilities; whereas they were less willing to include children with learning disabilities, severe hearing disabilities, and mental retardation. Ninety-six percent of teachers

believed that children with disabilities should have an equal opportunity for education, similar to typically developing children. However, 40% teachers doubted that primary school teachers could accept children with disabilities. Eighty-three percent of teachers felt a lack of achievement if they served children with disabilities. Eight-two percent of teachers indicated that they would like to provide high quality education for children with disabilities but they did not feel confident in working with them. Teachers with special education training had more positive beliefs about inclusion than teachers without special education training. Teachers also reported that administrative support, small class sizes, individualized teaching methods, and consultation with special educators were important to implement inclusion. In addition, they also needed training, knowledge of the educational and developmental characteristics of children with disabilities, adequate resources, and equipment to successfully include children with disabilities.

Through open-end questionnaires and interviews, Zhang and Chen (2002) investigated 23 primary school teachers' beliefs about inclusion. Although teachers showed positive attitudes toward inclusion, around 50% of teachers thought that inclusion should be based on children's types and severities of disabilities. Around 67% teachers felt that the social interaction between children with and without disabilities were positive. Most interactions happened during activities organized after school hours, in group activities, and during games rather than during learning activities. Teachers were willing to get training and knowledge in special education. They also thought the supports from community, schools, and parents were necessary for inclusion.

Research Focusing on Special Schools in P. R. China

Peng (1999) surveyed 432 teachers in self-contained special schools for children with visual impairments, hearing disabilities, and speech and language disabilities. In general, teachers showed positive beliefs about including these children in typical schools. However, there were still 29% of teachers who reported that they would feel lucky if only typically developing people were around them. About 30% of teachers thought that people with disabilities would cause trouble during family gatherings. Teachers who had training in special education were more positive toward the inclusion of children with visual impairments, hearing disabilities, and speech and language disabilities than teachers without special education training. Teachers with two-year college degree or higher education had more positive beliefs about inclusion than teachers without a college degree.

Further, 192 teachers in self-contained special schools (Peng, 2000) reported that they had positive beliefs about including children with mental retardation in typical schools or classrooms. Teachers under 40 years of age had more positive beliefs about inclusion than teachers older than 40 years of age. Similar to the finding in the Peng (1999) study, there were still some teachers who showed prejudices towards children with disabilities. For example, 27% teachers felt lucky if there were only typically developing people around them, and 26% teachers thought that people with disabilities would cause trouble during family gatherings.

To compare primary and self-contained special school teachers' beliefs about inclusion, Wei and Yuen (2000) investigated 100 primary school teachers and 88 self-

contained special school teachers. The result showed that 67% of special school teachers had positive attitudes toward inclusion; whereas only 33% of primary school teachers tended to agree with inclusion. Similar to previous studies (Chen, et al., 1994; Liu, et al., 2000), the main concerns of inclusion included lack of professional knowledge and skills, limited time to meet all children's needs, peer interactions, teaching facilities, parents' support, students' behavior problems, and administrative support.

Research Focusing on Preschools in P. R. China

Utilizing survey questionnaires and interviews, Zhang (2006) investigated 115 preschool teachers in Shang Hai, China. Three types of preschools, typical preschools, special preschools and semi-inclusive preschools, were included. Teachers in semi-inclusive preschools were most likely to have positive beliefs about inclusion, but their evaluation of the abilities of children with disabilities was lower than the evaluation of teachers in special preschools. Teachers in typical preschools expressed more urgent need of supports, such as resources, than teachers in semi-inclusive preschool and special preschools.

Studies in P.R. China showed similar results to the studies conducted in the United States and some European countries. For instance, teachers who had more supports and resources, and more experience with children with disabilities were more supportive of inclusion. Teachers thought that adequate resources, effective training, administrative and family supports were important in implementing inclusion. However, most studies in P. R. China focus on teachers' general beliefs about elementary and junior high school inclusion. According to Ladd (1988), younger children and older children are

different in their actual developmental skills. For example, there is less developmental discrepancy between children with and without disabilities at younger ages. Accordingly, the curriculum for young children should be different from the curriculum for older children. In P.R. China, early childhood education respects children's physical, cognitive, and social developmental characteristics. Early education focuses on early childhood experience and encourages children's learning through playing. Early education also encourages the balance of children-initiated and teacher-initiated activities (Kindergarten Education Program guidance in the People's Republic of China, 1999). In contrast, elementary education focuses more on academic content and teacher-initiated activities. In addition, elementary and junior high school students have the great pressures of achievement testing in P. R. China which has not extended down to preschoolers. As a result, studies on teachers' beliefs about preschool inclusion will provide further understanding of early inclusion and suggestions for successful implementation.

Research on Parents' Beliefs about Inclusion

The importance of parents in early childhood programs was first given serious consideration in Bronfenbrenner's work (1974). He argued that early intervention with parent involvement was more effective than only professional involvement. With respect to children with disabilities or developmental delays, Bronfenbrenner's later work, which formed his bioecological perspective, views families as engines of change for early intervention programs. A bioecological perspective acknowledges environmental influences on the development of the child and requires paying simultaneous attention to aspects of individuals, interactions, and the broader context (Bronfenbrenner, 1979). A

bioecological perspective also suggests looking beyond the parent-child relationship, and argues for the “ecologically valid interventions”; for instance, the need to focus attention on the whole family, the value of strengthening parents’ social support networks, and of linking families to community resources (Bronfenbrenner, 1987). That means that early inclusive programs are less likely to be successful unless they involve parents and the entire family.

In terms of parental influence over early childhood inclusion, parents of typically developing children can exert their direct influence through their choice of a program for their child and through their influence on center policy and decision-making once their child is enrolled. Parents of typically developing children also can indirectly influence early childhood inclusion through their socialization of their own children, who then become the peers in inclusive programs. For instance, parents can control their child’s access to experience or transmit emotional responses related to different people.

Therefore, understanding the beliefs about inclusion of parents of typically developing children is important to the effectiveness of inclusive programs (Guralnick, 2001).

However, compared to the studies on teachers’ beliefs about inclusion, both in the United States and in the P.R. China, fewer studies have been conducted on parents’ beliefs about inclusion, especially typically developing children’s parents’ beliefs about inclusion.

Research in U.S.

To investigate parents’ beliefs about including children with disabilities, Miller, Strain, Boyd, Hunsicker, and Wu (1992) surveyed 130 parents of typically developing children in inclusive settings (n = 70) and in typical preschools (n = 60). In general,

parents expressed positive attitudes toward inclusion. Compared to parents of children in typical preschools, parents of children in inclusive settings held a more favorable attitude toward their children's opportunity for inclusive experience and a stronger opinion that inclusive opportunities influenced their children's development. A similar finding was revealed in Diamond and LeFurgy (1994) study. Sixty parents of typically developing children in inclusive programs and 51 parents of typically developing children in typical preschools participated in the study. Parents' evaluation of their children's participation in inclusive program was positive. Parents' previous experience with inclusion influenced their beliefs. Parents of children in inclusive settings had more positive beliefs about inclusion than parents of children in typical preschools.

To study the benefits of inclusion identified by parents, Peck et al. (1992) surveyed 192 parents of typically developing children in inclusive preschools. Parents did not think typically developing children would learn undesirable behaviors from children with disabilities. Instead, parents reported that through inclusion, their children a) showed more acceptances to human differences; b) were more aware of others' needs; c) felt more comfort around children with disabilities; and d) had less prejudice about children with disabilities which facilitated friendships between children with and without disabilities. A similar finding was revealed in the Seery, Davis, and Johnson (2000) study. The content analysis of the interviews of 20 parents of typically developing children indicated that parents were convinced that children would benefit from inclusion. However, they were concerned about the ability of teachers to give adequate attention to children, the number of qualified teachers to meet children's needs, and the necessary

training to work in inclusive settings.

Rafferty, Boettcher, and Griffin (2001) utilized a multi-dimensional survey to record perceived benefits and risks of inclusion for children with and without disabilities, global attitudes toward inclusion, program satisfaction and involvement, types and severity of disabilities, as well as parental attitudes toward inclusion according to types and severity of disabilities. Seventy-eight parents of typically developing children participated in the study. Parents felt that inclusion had potential benefits for children with and without disabilities. Parents agreed that children with disabilities gained acceptance through inclusion, developed independence in self-help skills, had more chances to participate in variety of activities, became more prepared for the real world, wanted to try harder, or felt better about themselves. As for typically developing children, parents agreed that typically developing children increased their sensitivity to others, better understood human diversity, and were more aware of their own strengths and weakness. Although parents disagreed that inclusion had a negative impact on children with and without disabilities, they showed some concerns. For instance, children with disabilities might receive inadequate special help, less attention from teachers, inadequate special services, rejection by teachers, unqualified teachers, and experience a negative impact on their emotional development. Typically developing children might be injure or frightened by children with disabilities. They might also learn undesired behaviors, received less attention from teachers, and slow their learning down because of inclusion. In response to the acceptance of children with different types and severity of disabilities, the parents showed more support toward children with speech impairments or orthopedic

impairments, but less support toward children with emotional problems, cognitive impairments, or autism, as well as children with severe disabilities (Rafferty, et al., 2001).

Further, Seery et al. (2000) compared the stability of parents and teachers' beliefs about inclusion over the course of the school year. Both parent and teachers agreed that inclusion benefited children at the beginning and the end of the academic school year. Teachers showed consistent concern about the programs' ability to meet all children's needs over the course of the school year. Parents, however, expressed little concern about the programs' ability at the beginning of the academic school year; whereas they became more confident in the program's ability to serve both children with and without disabilities at the end of the year.

To compare parents and teachers' beliefs about the risks and benefits of inclusion, Rafferty and Griffin (2005) surveyed 76 parents of typically developing children and 118 preschool teachers. Both parents and teachers demonstrated positive attitudes toward inclusion, were more willing to include children with speech, orthopedic, or hearing impairments, and were less willing to include children with emotional problems, autism, or cognitive impairments. Teachers were more likely to be willing to include children with mild and moderate disabilities than parents; whereas both teachers and parents were less likely to be willing to include children with severe disabilities.

Research in P. R. China

One study in P.R. China by Niu, Liu, and Tian (2005) investigated parents' acceptance of children with disabilities, parents' expectations of the ability of children with disabilities, and parents' evaluations of the outcome of inclusion. Four hundred and

eighty parents of typically developing children participated in the study. In general, parents showed acceptance of children with disabilities and satisfaction with the outcome of inclusion. However, their expectations of the ability of children with disabilities were low.

Overall, the research on parental beliefs in both in the U.S. and P. R. China shows positive beliefs about inclusion. Although parents had some concerns about inclusion, they agreed that both children with and without disabilities would benefit from inclusion. Parents were more willing to include children with mild disabilities and less showed less supports toward including children with severe disabilities. In addition, as the amount of time their children participated in inclusive settings increased, parents' positive beliefs about inclusion also increased. However, there is limited research of parental beliefs about preschool inclusion in China. Niu, et al. (2005) only mentioned the ages of parents who participated in the study ranged from 31 to 45. But the authors did not specify whether the parents were parents of preschool, elementary or high school age children. Also few studies acknowledge person variables (e.g. age, education, experience with children or adults with disabilities), and there is limited research on the impact of the characteristics of school.

Research Questions and Hypotheses

The research literature clearly demonstrates that both parents and teachers have positive beliefs about inclusion. However, they also show some concerns about inclusion. In addition, research also indicates that experience with children with disabilities, teachers' education, teachers' sense of efficacy, and children's types and severities of

disabilities were associated with parents and teachers' beliefs about inclusion. It is also clear that compared with the United States and some other developed countries, Chinese research focusing on parents and teachers' beliefs about preschool inclusion is limited.

Considering the large population of children with disabilities in P. R. China, it is important to provide appropriate inclusive education for all children. According to Guralnick (2001), people's attitudes toward children with disabilities and inclusion will influence the development of children with disabilities and the effectiveness of inclusion. In addition, the research by Zhang (2006) compared the beliefs of teachers from typical preschools, special preschools and semi-inclusive preschools. The results indicated that teachers in typical preschools had more urgent need of supports for serving children with disabilities. Therefore, this study focused on parents of typically developing children and preschool teachers' beliefs about early inclusion in P. R. China. Different from the study by Zhang (2006), this study not only investigated teachers' beliefs about inclusion, but also investigated parents' beliefs about inclusion. Additionally, this study also contributed to the literature by examining Chinese parents and teachers' beliefs about inclusion as a function of both teacher/parent-level variables (e.g. age, education, and experience with children or adults with disabilities) and the school level variables (e.g. school quality, and average socioeconomic status of families in each preschool). Seven research questions were addressed.

Research Question 1

What relation does prior experience, education, teachers' age, or sense of teaching efficacy (efficacy in student engagement, efficacy in instructional strategies, and efficacy

in classroom management) have on teachers' beliefs about inclusion (core perspectives, expected outcomes, classroom practices)?

Hypothesis

a. Teachers with at least some prior experience with children or adults with disabilities will have higher reported positive beliefs about inclusion than teachers without prior experience.

b. Teachers with higher levels of education will have higher reported positive beliefs about inclusion than teachers with lower levels of education.

c. Teachers who are younger will have higher reported positive beliefs about inclusion than teachers who are older.

d. Teachers who have a higher sense of teaching efficacy will have higher reported positive beliefs about inclusion than teachers with a lower sense of teaching efficacy.

Research Question 2

What relation does prior experience, education, teachers' age, or sense of teaching efficacy have on teachers' perceived benefits and risks for children with and without disabilities?

a. Teachers with at least some prior experience with children or adults with disabilities will have higher reported perceived benefits and lower reported perceived risks for children with and without disabilities than teachers without prior experience.

b. Teachers with higher levels of education will have higher reported perceived benefits and lower reported perceived risks for children with and without disabilities than

teachers with lower levels of education.

c. Teachers who are younger will have higher reported perceived benefits and lower reported perceived risks for children with and without disabilities than teachers who are older.

d. Teachers who have a higher sense of teaching efficacy will have higher reported perceived benefits and lower reported perceived risks for children with and without disabilities than teachers with a lower sense of teaching efficacy.

Research Question 3

What relation does prior experience and SES have on parents' beliefs about inclusion?

Hypothesis

a. Parents whose children have at least some prior experience with children or adults with disabilities will have higher reported positive beliefs about inclusion than parents whose children do not have prior experience.

b. Parents with higher SES will have higher reported positive beliefs about inclusion than parents with lower SES.

Research Question 4

What relation does prior experience and SES have on parents' perceived benefits and risks for children with and without disabilities?

Hypothesis

a. Parents whose children have at least some prior experience with children or adults with disabilities will have higher reported perceived benefits and lower reported

perceived risks for children with and without disabilities than parents whose children do not have prior experience.

b. Parents with higher SES will have higher reported perceived benefits and lower reported perceived risks for children with and without disabilities than parents with lower SES.

Research Question 5

What relation do hypothetical children's different types of disabilities have on parents and teachers' beliefs about inclusion?

Hypothesis

a. Teachers will be more willing to include children with hearing impairments, visual impairments, and physical impairments than children with mental retardation and emotional and behavioral disorders in their classrooms.

b. Parents will be more willing to include children with hearing impairments, visual impairments, and physical impairments than children with mental retardation and emotional and behavioral disorders in their children's classrooms.

Research Question 6

What relation do hypothetical children's different types of disabilities have on parents and teachers' perceived benefits and risks for children with and without disabilities?

Hypothesis

a. Teachers' perceived benefits for children with and without disabilities for including children with hearing impairments, visual impairments, and physical

impairments will be higher than for including children with mental retardation and emotional and behavioral disorders in their classrooms.

b. Parents' perceived benefits for children with and without disabilities for including children with hearing impairments, visual impairments, and physical impairments will be higher than for including children with mental retardation and emotional and behavioral disorders in their children's classrooms.

Research Question 7

What relation does the quality of a preschool and the socioeconomic status of families in this preschool have on parents' and teachers beliefs about inclusion and perceived benefits and risks for children with and without disabilities?

Hypothesis

a. Parents and teachers from a higher quality preschool will have higher reported positive beliefs about inclusion than parents and teacher in a lower quality preschool.

b. Parents and teachers from a preschool in which the socioeconomic status of families is higher will have higher reported positive beliefs about inclusion than those from a preschool in which the socioeconomic status of families is lower.

c. Parents and teachers from a higher quality preschool will have higher reported perceived benefits and lower reported perceived risks for children with and without disabilities inclusion than parents and teacher in a lower quality preschool.

d. Parents and teachers from a preschool in which the socioeconomic status of families is higher will have higher reported perceived benefits and lower reported perceived risks for children with and without disabilities inclusion than those from a

preschool in which the socioeconomic status of families is lower.

CHAPTER III

METHOD

Participants

Data were collected from two Provinces in Northern China from May 2007 to September 2007. The total number of Chinese parents and teachers who participated in the study was 986 which included 626 parents and 360 teachers. Twenty-nine parents and 14 teachers were dropped due to insufficient data. The complete data set consists of information from 346 teachers and 597 parents across 16 preschools (with anywhere from 14 to 33 teachers and from 17 to 61 parents per preschool). Table 1 lists the number of teachers and parents who participated in each preschool. Among the 597 parents, there were 200 fathers and 397 mothers. Among the 346 teachers, there were 10 male teachers and 387 female teachers.

Table 1

Description of Parents and Teachers in Each Preschool

Preschool ID	Number of Parents	Number of Teachers
1	45	27
2	28	18
3	41	19
4	53	33
5	50	29
6	49	20
7	17	16
8	57	18
9	20	17
10	61	30
11	28	31
12	29	16
13	30	18
14	40	21
15	30	19
16	19	14
Total	597	346

The two provinces have a similar cultural background. One province represents the higher income, education, and expense in Northern China. The other province represents the middle income, education, and expense in Northern China. A descriptive analysis of the data (from the demographic survey designed for this study) indicated that the two provinces are significantly different in their families' average education (more than two-year College vs. more than high school, $p=.000$) and income (more than 5,000 Chinese Dollar/month vs. around 4,000 Chinese Dollars/month, $P=.000$). In this sample, teachers' average education between the two provinces was not statistically significant. The data from the demographic survey also indicated that the social economic status of

the participants exhibited a wide range and was normally distributed. Teachers' experiences in early childhood education ranged from 1 to 8 years, with a mean of 4.6 years. Except for teachers who had less than high school diploma (n = 7), all the other teachers had degrees related to early childhood education.

The quality ratings of preschools in these two provinces have 6 levels. Demonstration preschools of the Province represent the highest level, while second-level preschools of the city represent the lowest level. The preschools included in the sample are the higher quality of programs, Demonstration preschools of Province (eight preschools) and first-level preschools of Province (eight preschools). In this sample, there are 6 Demonstration preschools of Province and 5 first-level preschools of Province in the Province with middle income and education. There are 2 Demonstration preschools of Province and 3 first-level preschools of Province in the Province with higher income and education.

Measures

In this study, both parents and teachers completed three instruments. One measure examined their beliefs about inclusion, a second assessed their perceived benefits and risks of inclusion for children with and without disabilities, and the third was a demographic survey. Finally, teachers completed an additional instrument about their teaching efficacy.

My Thinking about Inclusion (MTAI) – Brief Version

MTAI (Stoiber et al., 1998) is an instrument designed to measure parents and teachers' general beliefs about inclusion. MTAI is a 5-point Likert-type scale ("1" =

strongly reject; “5” = strongly accept) that has three subscales: Core perspectives (6 items) (e.g. Students with special needs have the right to be educated in the same classroom as typically developing students), Expected outcomes (4 items) (e.g. Inclusion is socially advantageous for children with special needs), and Classroom practices (2 items) (e.g. Children with exceptional needs monopolize teachers' time). The measure contains 12 items. The study by Stoiber et al. (1998) indicated that internal consistency of scores on the measure were within acceptable ranges (Core perspectives $\alpha = .77$; Expected outcomes $\alpha = .69$; Classroom practices $\alpha = .69$, MTAI $\alpha = .86$). Although the third factor in the study by Stoiber et al. (1998) only included 2 items, the authors insisted that it was a third separate subscale based on two criteria. First, the subscale-to-total-scale correlations ranged from .73 to .91 which supported a moderate to high association between subscales and the overall scale. Second, the inter correlations among subscales were not high ($<.80$) which allowed the inclusion of the third factor (see Appendix A).

Impact of Inclusion on Children with Disabilities

Impact of Inclusion on Children with Disabilities (Raffery & Griffin, 2005) was used to measure parents and teachers' perceived benefits and risks for children with disabilities. The measure (13 items) is a 5-point Likert-type scale (“1” = strongly disagree; “5” = strongly agree). The study by Raffery and Griffin (2005) showed that the measure had two subscales: Perceived benefits of inclusion (7 items, $\alpha = .87$, e.g. Prepares them to function effectively in real world); Perceived risks of inclusion (6 items, $\alpha = .84$, e.g. May negatively affect their emotional development) (see Appendix B).

Impact of Inclusion on Typically Developing Children

Impact of Inclusion on Typically Developing Children (Raffery & Griffin, 2005) was used to measure parents and teachers' perceived benefits and risks for typically developing children. The measure (12 items) is a 5-point Likert-type scale ("1" = strongly disagree; "5" = strongly agree). The study by Raffery and Griffin (2005) showed that the measure had two subscales: Perceived benefits of inclusion (4 items, $\alpha = .86$, e.g. Help them to accept differences in people); Perceived risks of inclusion (8 items, $\alpha = .79$, e.g. They may be injured by children with disabilities) (see Appendix C).

Teachers' Sense of Efficacy Scale (TSES) – Short Form

TSES (Tschannen-Moran & Woolfolk Hoy, 2001) was used to measure teachers' beliefs about their capabilities to bring about desired outcomes of student engagement and learning, even among students who may be difficult or unmotivated. The teacher efficacy measure is a 9-point Likert-type scale ("1" = Nothing; "9" = A great deal) that has three subscales: Efficacy in student engagement (SE) (e.g. To what extent can you use a variety of assessment strategies?), efficacy in instructional strategies (IS) (e.g. How much can you do to control disruptive behavior in the classroom), and efficacy in classroom management (CM) (How much can you do to get students to believe they can do well in schoolwork?). The measure contains 16 items (4 per factor). Internal consistency of scores on the measure based on the results of Tschannen-Moran and Woolfolk Hoy's study (2001) were high (SE $\alpha = .81$; IS $\alpha = .86$; CM $\alpha = .86$, TSES $\alpha = .90$) (see Appendix D).

Demographic Survey

A demographic section of the survey assessed teacher and parent background and included gender, education, income, and experience with children with disabilities (see Appendix E).

Initially all of the measures for the study were translated from English into Chinese and then back-translated to ensure accuracy of interpretation. Any inconsistencies were resolved through discussion. Once this was complete two parents and two teachers from China read through the Chinese versions to make sure the sentences were clear. Based on these procedures it was determined that the translations were accurate and understandable to Chinese speakers.

Procedures for Collecting Data

An online survey was utilized to examine the effect of five types of disabilities with moderate severity (hearing impairments, visual impairments, mental retardation, emotional and behavioral disorders, and physical impairments) on parents and teachers' beliefs about inclusion. To accomplish this goal the MTAI, Impact of Inclusion on Children with Disabilities, and the Impact of Inclusion on Typically Developing Children were reworded to incorporate the five different types of disabilities. The website design allowed web pages that surveyed people's beliefs about including children with different types of disabilities to be brought up randomly, requiring each individual parent or teacher to only need to complete information based on one type of disability.

To recruit parents and teachers, sixteen preschools in two provinces in Northern China were contacted through email and phone. All of the directors in the 16 preschools

agreed to participate in the study. Through the directors, all teachers in these preschools were invited to participate in the study and informed of the website. Teachers, then, informed all parents in their classroom through family contact notes or formal/informal meetings with parents. Parents and teachers in those preschools who were willing to enroll in this study were the participants. On the first page of the online survey was an introduction of the study which mentioned that parents and teachers' completion of this survey indicated their consent to participate in this study. Parents and teachers were also encouraged to print a copy of this page to keep for their own records in the event that they had future questions concerning this study.

For the parents and teachers who could not use the online survey, the same number of hardcopies of the measures for each type of disability was mailed to the directors. Directors, then, distributed the survey to parents and teachers randomly. Parents and teachers were asked to sign one copy of the consent form, put it in the envelope provided, seal it, put a cross-sign over the seal, and bring the envelope back to the lead teacher or the director. Then, the directors mailed the consent forms to me.

The final data collection showed that 90% of participants completed the survey using online website and 10% of participants used hardcopies of the measures. Overall, 235 participants completed the questionnaires for children with Physical Impairment, 165 for children with Hearing Impairment, 187 for children with Mental Retardation, 179 for children with Behavioral and Emotional Disability, and 175 parents for children with Visual Impairment. In terms of the data entry, data on the hardcopies were entered by hand into SPSS and SAS. Online data were stored automatically in a Microsoft Access

2000 Database when parents and teachers submitted their answers to the survey questions.

The import Data procedure in SPSS/SAS was utilized to convert the database to SPSS and SAS.

CHAPTER IV

RESULTS

Analyses for this study were completed using SPSS 11.0 and SAS 9.1 statistical programs. In this chapter, first, the initial analyses of the distribution of data (skewness, kurtosis, and normality) are reported. Cronbach's alpha for scales and subscales of MTAI, Impact of Inclusion on Children with Disabilities, Impact of Inclusion on Children without Disabilities, and TSES also are provided. Second, since the measures of MTAI, Impact of Inclusion on Children with Disabilities, Impact of Inclusion on Children without Disabilities, and TSES are made up of multiple items, the results of factor analyses for each measure are reported. Finally, the hypotheses are tested and the results are reported.

Preliminary Analyses

Descriptive statistics for the total sample of 626 parents and 360 teachers were computed for each item to assess normality and the level of missing data. Item 12 in MTAI was somewhat skewed (-1.74), but the remaining items were normally distributed. Individual cases with more than 2 missing items in each measure were removed from the dataset (29 parents and 14 teachers' data were deleted). When there was one or two items missing from each measure, the missing data (46 parents and 20 teachers' data) were replaced by the mean score of each subscale of the specific case for further analyses. The total number of data (N=943) for further analyses included 597 parents and 346 teachers.

Cronbach's alpha analyses were used to examine the internal consistency of the each measure and each of the subscales. The results presented in Table 2 suggest that the reliability for the overall scales and subscales of Impact of Inclusion on Children with Disabilities, Impact of Inclusion on Typically Developing Children, and TESE are adequate, ranging from .78 to .95. Therefore, in further analyses, confirmatory factor analyses for measures of Impact of Inclusion on Children with Disabilities, Impact of Inclusion on Typically Developing Children, and TESE were run to confirm the factors for each measure.

Table 2

Cronbach's Alpha for Each Measure and Each of the Subscales

	Number of Items	Cronbach's Alpha
Overall Scale - MTAI	12	.69
Core Perspectives	6	.71
Expected Outcomes	4	.10
Classroom Practices	2	.63
Overall Scale - Impact of Inclusion on Children with Disabilities	13	.81
Perceived Benefits of Inclusion on Children with Disabilities	7	.87
Perceived Risks of Inclusion on Children with Disabilities	6	.78
Overall Scale - Impact of Inclusion on Typically Developing Children	12	.86
Perceived Benefits of Inclusion on Typically Developing Children	4	.83
Perceived Risks of Inclusion on Typically Developing Children	8	.89
Teachers' Sense of Efficacy Scale (TSES)	12	.95
Efficacy in Student Engagement (SE)	4	.87
Efficacy in Instructional Strategies (IS)	4	.88
Efficacy in Classroom Management (CM)	4	.90

However, the internal consistency of overall scale and subscales of MTAI ranged from poor to moderate (.10 to .69), with quite low alphas on the Expected Outcomes subscale. Therefore, both exploratory and confirmatory factor analyses were conducted to determine how many unique aspects of beliefs were being measured in MTAI.

Exploratory factor analyses for MTAI were run to determine the possible aspects of beliefs that were being measured. A random selection procedure in SPSS was utilized to split the complete data set (N=943) into two data sets. The first data set was used to conduct the exploratory factor analysis including 492 parents and teachers. The second data set was used to conduct the confirmatory factor analysis including 451 parents and teachers. The two data sets did not differ in the education of the teachers, SES of the parents, or parents and teachers' experiences with disabilities. The two data sets were also not different in the mean scores of the overall MTAI and its subscales.

Exploratory Factor Analyses for MTAI

Before conducting exploratory factor analyses for MTAI, the items of MTAI were checked again based on the preliminary analyses. The results indicated that items 8 and 12 caused the low internal consistency of overall scale of MTAI. Without item 8 (Children with special needs will probably develop academic skills more rapidly in a special, separate classroom than in an integrated classroom), the internal consistency of the overall scale of MTAI improved from .69 to .75. Without item 12 (The behaviors of students with special needs require significantly more teacher-directed attention than those of typically developing children), the internal consistency of overall scale of MTAI improved from .69 to .74. If both items 8 and 12 were excluded, the internal consistency

of the overall scale of the MTAI was .77. In addition, item 12 was skewed. Therefore, in the next step, three different exploratory factor analytic techniques were used to determine the best factor solution for the MTAI data without items 8 and 12: a principal component extraction method (PCF), a principal factors extraction method (PAF), and a maximum likelihood extraction method (ML). To conduct the analyses, SPSS 11.0 statistical program was utilized.

The principal component extraction method with Varimax rotation was conducted first. Two factors had Eigenvalues over 1. The scree plot (Figure 1) showed that there is a clear leveling off starting with three factors, suggesting retaining two. The structure coefficient of each item was greater than .40 and there was no cross-loading between factors. The total variance explained by 2 factors was 54.32%. The first factor contained items 1, 4, 5, 6, 7, and 10 related to the positive beliefs about preschool inclusion. The total variance explained by the first factor was 32.17%. The second factors included items 2, 3, 9, and 11 related to the negative beliefs about preschool inclusion. The total variance explained by the second factor was 22.15%. Similar results were obtained from the principal component extraction method with Promax rotation, the principal factors extraction method with Varimax rotation, and the principal factors extraction method with Promax rotation. With a maximum likelihood extraction method, significance of the Chi-square tests for sufficiency of the number of factors also suggested a 2-factor solution. However, because of the large sample size (N= 943), the actual data produced statistically significant Chi-squares (Raykov & Marocoulides, 2000). Table 3 presents the variance explained by 2 factors (factor 1 and factor 2) using the different extraction

methods. Table 4 and Table 5 present the structure coefficient of each item using PCF and PAF.

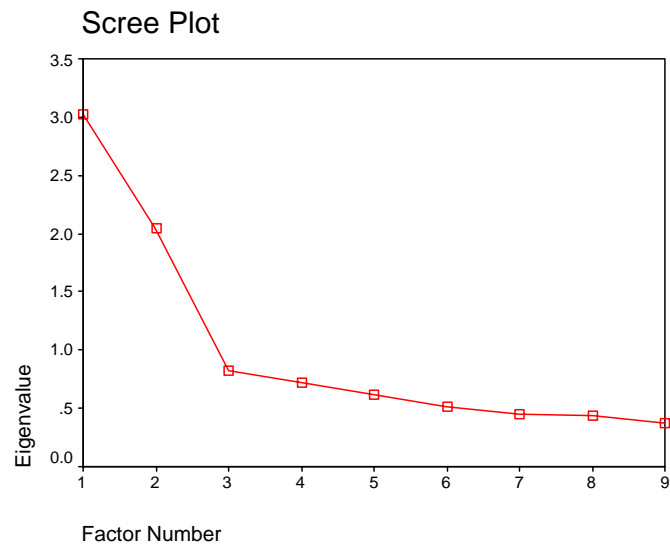


Figure 1 Scree Plot for MTAI

Table 3

Variance Explained by MTAI

Extraction Method	MTAI	Factor 1	Factor 2
PCF with Varimax rotation	54.32	32.17	22.15
PCF with Promax rotation	54.32	33.53	20.80
PAF with Varimax rotation	43.31	26.92	16.40
PAF with Promax rotation	43.31	28.28	15.04
ML	43.29	26.93	16.36

Table 4

Structure Coefficient of MTAI (PCF)

Item	Factor 1	Factor 2
	(Varimax / Promax)	(Varimax / Promax)
7	.809 / .804	
4	.768 / .783	
6	.750 / .742	
5	.715 / .710	
1	.656 / .670	
10	.574 / .575	
3		.754 / .770
2		.731 / .728
11		.712 / .714
9		.707 / .700

Table 5

Structure Coefficients of MTAI (PAF)

Item	Factor 1	Factor 2
	(Varimax / Promax)	(Varimax / Promax)
7	.777 / .770	
4	.731 / .748	
6	.686 / .678	
5	.635 / .631	
1	.582 / .597	
10	.475 / .478	
3		.695 / .717
2		.620 / .641
11		.605 / .585
9		.560 / .553

In order to examine the efficacy of the factors identified, additional analyses were conducted. The results indicated that the internal consistency of the overall MTAI, factor 1 (positive beliefs about inclusion), and factor 2 (negative beliefs about inclusion) was .77, .82, and .70 respectively. The correlations of the two factors with the overall MTAI were high (.85 and .64), which provided support for the two factors identified. The correlation between the two factors was low (.15), indicating that the two factors are measuring relatively independent constructs. Taken together these results indicated that the two factors are measuring two separate constructs and a moderate degree of validity.

Confirmatory Factor Analyses

Based on the preliminary analyses for the measures of Impact of Inclusion on Children with Disabilities, Impact of Inclusion on Typically Developing Children, and TESE, confirmatory factor analyses were conducted to evaluate whether the original factor model of each measure was the best fit for the data. I conducted confirmatory factor analyses using PROC CALIS in SAS 9.1. To conduct the confirmatory factor analysis on MTAI, I used the second dataset (N=451) produced through the random sampling process described earlier. The datasets for testing the measures of Impact of Inclusion on Children with Disabilities and Impact of Inclusion on Typically Developing Children contained both parents and teachers' answers (N=943). The dataset for testing TESE contained only teachers' answers (N= 346). Table 6 shows the measures of fit indices. The Chi-square values for the two factor model of MTAI and original model of Impact of Inclusion on Children with disabilities, Impact of Inclusion on Typically Developing Children, and TESE were statistically significant. However, according to

Raykov and Marocoulides (2000), the Chi-square p value should not be the only index of model fit. When the sample size is large, there is a spurious tendency to obtain large Chi-square values with a small p value (Raykov & Marocoulides, 2000). Based on the criteria mentioned by Raykov and Marocoulides (2000), the other indices of model fit for each measure indicated that the two factor model of MTAI and original factor model of Impact of Inclusion on Children with disabilities, Impact of Inclusion on Typically Developing Children, and TESE demonstrated an adequate fit.

Table 6

Measures of Fit

Measures of Fit Information	MTAI	Impact of Inclusion on Children with Disabilities	Impact of Inclusion on Typically Developing Children	TESE
Chi-Square Value	190.95	274.58	256.52	231
Probability for Chi-Square	<.0001	<.0001	<.0001	<.0001
Chi-Square Df	32	51	51	48
Goodness of Fit Index (GFI)	.92	.93	.94	.89
GFI Adjusted for Degree of Freedom (AGFI)	.86	.90	.90	.85
RMSEA Estimate	.06	.04	.049	.06
Comparative Fit Index (CFI)	.87	.92	.94	.93
Non-Normed Fit Index (NNFI)	.88	.90	.92	.91

In addition, examinations of the factor loadings confirmed that the endogenous variables (items) consistently loaded on the factors in the two factor model of MTAI and original factor model of Impact of Inclusion on Children with disabilities, Impact of Inclusion on Typically Developing Children, and TESE. There was no cross loading between factors. As for MTAI, items 1, 4, 5, 6, 7, and 10 loaded on factor 1 representing the positive beliefs about inclusion. Items 2, 3, 9, and 11 loaded on factor 2 representing the negative beliefs about inclusion. As for the measure of Impact of Inclusion on Children with Disabilities, items 1, 2, 3, 4, 5, 6, and 7 loaded on factor 1 representing Perceived Benefits for Children with Disabilities. Items 8, 9, 10, 11, 12, and 13 loaded on factor 2 representing Perceived Risks for Children with Disabilities. As for the measure of Impact of Inclusion on Typically Developing Children, items 1, 2, 3, and 4 loaded on factor 1 representing Perceived Benefits for Typically Developing Children. Items 5, 6, 7, 8, 9, 10, 11, and 12 loaded on factor 2 representing Perceived Risks for Typically Developing Children. As for TESE, items 1, 2, 3, and 4 loaded on factor 1 (efficacy in student engagement - SE). Items 5, 6, 7, and 8 loaded on factor 2 (efficacy in instructional strategies - IS). Items 9, 10, 11, and 12 loaded on factor 3 (efficacy in classroom management - CM).

Above results confirmed that My Thinking about Inclusion (MTAI) included two factors, one is Positive Beliefs about Inclusion, and the other is Negative Beliefs about Inclusion. Impact on Children with Disabilities included two factors, one is Perceived Benefits for Children with Disabilities, and the other is Perceived Risks for Children with Disabilities. Impact on Typically Developing Children also included two factors, one is

Perceived Benefits for Typically Developing Children, and the other is Perceived Risks for Typically Developing Children. Teachers' Sense of Efficacy Scale (TSES) included three factors: 1) efficacy in student engagement (SE), 2) efficacy in instructional strategies (IS), and 3) efficacy in classroom management (CM).

Hierarchical Linear Modeling Analyses

In this study, the data structure is nested. Parents and teachers tend to exist within a hierarchical social structure: Preschools. According to Raudenbush and Bryk (2002), individuals that exist within hierarchies tend to be more similar to each other than individuals randomly sampled from the entire population. For example, because of geographic factors, parents or teachers in a particular preschool are more similar to each other than to parents or teachers randomly sampled from the national population of parents or teachers of preschoolers. Thus, parents or teachers within a particular preschool tend to come from a community or community segment that is more homogeneous in terms of beliefs and values, family background, socio-economic status, race or ethnicity, and even educational preparation than the population as a whole. Because these parents and teachers are nested in preschools, they tend to share certain characteristics (environmental, background, experiential, or demographic). Observations based on these individuals are not fully independent. However, a primary assumption of regression analysis requires independence of observations. Because this assumption is violated in the presence of hierarchical data, regression produces standard errors that are too small, which leads to a higher probability of rejection of a null hypothesis. The data of this study were at two levels, parents and teachers within preschools. The aim of the

hypotheses tests was to examine parents and teachers' beliefs about inclusion as a function of both teacher/parent-level (level-1) and school-level (level-2) predictors. Therefore, a series of two-level school effects models were utilized to test the hypotheses. First, a baseline model, unconditional means model, will be examined to determine whether a complex model would be needed (Raudenbush & Bryk, 2002). Then, if variation in the outcomes exists within, between, or within and between preschools, a complex model will be examined to determine how the variation was influenced by level-1 predictors and level-2 predictors.

Variables of Hierarchical Linear Modeling Analyses

The teacher/parent-level (level-1) outcomes included positive and negative beliefs about inclusion, perceived benefits and risk for children with disabilities, and perceived benefits and risk for children without disabilities. The teacher-level (level-1) covariates (predictors) included teacher's age, experiences with children with disabilities, types of disabilities, teacher's education, and sense of teaching efficacy. The parent-level (level-1) covariates were experiences with children with disabilities, types of disabilities, and SES. There are two school-level (level-2) covariates: families' average SES of each preschool and quality of each preschool.

Teachers' age was recorded in three levels, "less than 30 years old", "less than 40 years old and more than 30 years old", and "more than 40 years old." Teachers' education was recorded in 4 levels, ranging from "did not complete high school" to "4-year degree or more." Parents' education was recorded in 4 levels, ranging from "did not complete high school" to "4-year degree or more." Families' income was recorded in 12

levels, ranging from “less than 1000 (Chinese Dollars)/month” to “more than 15000 (Chinese Dollars)/month.” Since parental education and family income were highly correlated, a factor score of parental education and family income was utilized to represent SES. To compute the factor score, a principal component extraction method was conducted on the variables of parental education and family income. Then, saved the regression factor score from parental education and family income was generated as the factor score. Parents and teachers’ experience with disabilities, a dummy variable, was coded into 1 (no experience) and 2 (has experience). There were five types of disabilities which were coded from 1 to 5 (1- Physical Impairment, 2- Hearing Impairment, 3-Mental Retardation, 4-Behavioral and Emotional Disability, and 5- Visual Impairment). Families’ average SES within each preschool was an aggregate measure of parent level characteristics, which were centered at the grand mean (they have means of 0, standard deviation of 1). The quality of each preschool was coded as 1 (high quality) and 2 (moderate quality).

Hypotheses Testing

To test the hypotheses, I conducted two-level school effects models using PROC MIXED in SAS 9.1. I began by fitting unconditional means models and examining variation in outcome variables across preschools. The unconditional means model is normally viewed as a one-way random effects ANOVA model which will provide useful preliminary information about how much variation in the outcomes exist within and between preschools. Then, I examined the effects of teacher/parent level (level-1) predictors and the preschool level (level-2) predictors.

Research Question 1

Research question 1 aimed to detect whether teachers' prior experience with disabilities, education, age, or sense of teaching efficacy have a relationship to teachers' beliefs about inclusion. The descriptions of beliefs about inclusion based on teachers' age, experience with disabilities, and education are listed in Table 7, Table 8, and Table 9. The test of homogeneity of variances on each predictor was not statistically significant which indicated equal variances among groups. Table 10 lists the parameter estimates for the random effects portion (level-1) of the unconditional means model. In terms of the individual teachers' beliefs about inclusion, preschools did differ in their average overall beliefs about inclusion ($\tau_{00} = .042, p = .02$), their positive beliefs about inclusion ($\tau_{00} = .038, p = .0499$), and their negative beliefs about inclusion ($\tau_{00} = .064, p = .022$) (between group differences). There was even more variation among individual teachers' overall beliefs about inclusion ($\sigma^2 = .31, p < .0001$), positive beliefs about inclusion ($\sigma^2 = .52, p < .0001$), and negative beliefs about inclusion within preschools ($\sigma^2 = .51, p < .0001$) (within group differences). The results of the unconditional means model provides a baseline against which I could compare a more complex model.

Table 7

Means and SD for Teacher's Beliefs about inclusion by Age

		N	Mean	SD
Overall	<30	174	3.29	.60
MTAI	>30 <40	118	3.26	.61
	>40	52	3.14	.54
Positive Beliefs	<30	174	3.77	.77
	>30 <40	118	3.81	.80
	>40	52	3.62	.56
Negative Beliefs	<30	174	2.56	.72
	>30 <40	118	2.43	.80
	>40	52	2.41	.70

Table 8

Means and SD for Teacher's Beliefs about inclusion by Experience with Disabilities

		N	Mean	SD
Overall	No experience	223	3.19	.60
MTAI	Has experience	121	3.37	.57
Positive Beliefs	No experience	223	3.68	.75
	Has experience	121	3.91	.72
Negative Beliefs	No experience	223	2.46	.78
	Has experience	121	2.56	.70

Table 9

Means and SD for Teacher's Beliefs about inclusion by Education

		N	Mean	SD
Overall	Less than High School	7	2.79	.62
MTAI	High School	31	3.18	.57
	2-year College	177	3.23	.57
	4-year College or more	129	3.38	.61
Positive Beliefs	Less than High School	7	3.42	.58
	High School	31	3.64	.66
	2-year College	177	3.65	.76
Negative Beliefs	4-year College or more	129	3.95	.72
	Less than High School	7	1.85	.76
	High School	31	2.49	.79
	2-year College	177	2.51	.70
	4-year College or more	129	2.60	.81

Table 10

Covariance Parameter Estimates- MTAI (Unconditional Means Model)

Effect		Estimate	SE	Z	P
Overall	Between Preschool	.042	.02	2.05	.02
MTAI	Within Preschool	.31	.02	12.82	<.0001
Positive Beliefs	Between Preschool	.038	.02	1.65	.0499
	Within Preschool	.52	.04	12.81	<.0001
Negative Beliefs	Between Preschool	.064	.03	2.02	.02
	Within Preschool	.51	.04	12.82	<.0001

In the next step, I included the effects of teacher-level (level-1) predictors in the model. Since each individual teacher only needed to complete the survey based on one type of disability, I also added the variable of type of disabilities as a control variable.

Table 11 listed the parameter estimates for the fixed effects portion (level-1) of the two-

level model.

Table 11

Fixed Effects of Age, Experience with Disabilities, Education, and TSES on MTAI

Effect		Estimate	SE	df	T	P
Overall	Age	-.08	.06	324	-1.29	.06
MTAI	Experience with Dis	.18	.02	324	2.71	.007
	Education	.14	.07	324	2.98	.003
	Teachers' Sense of Efficacy Scale	.06	.03	324	1.95	.16
Positive Beliefs	Age	-.09	.05	324	-1.65	.10
	Experience with Dis	.24	.08	324	2.88	.004
	Education	.20	.06	324	3.43	.0007
	Teachers' Sense of Efficacy Scale	2.82	.26	324	10.75	.003
Negative Beliefs	Age	-.06	.06	324	-1.10	.27
	Experience with Dis	.10	.08	324	1.18	.24
	Education	.06	.06	324	.94	.35
	Teachers' Sense of Efficacy Scale	.06	.04	324	1.68	.09

The results supported Hypotheses 1a that teachers with at least some prior experience with children or adults with disabilities had higher reported beliefs about inclusion than teachers without prior experience ($M=3.37$ vs. 3.19 , $p = .007$). Teachers with some experience with disabilities had more positive beliefs about inclusion ($M=3.91$ vs. 3.68 , $p = .004$). Although teachers with some experience with disabilities had slightly less negative beliefs about inclusion ($M=2.56$ vs. 2.46) than teachers without experience with disabilities, the difference was not statistically significant ($p = .24$)

The results also supported Hypotheses 1b that teachers with a higher level of

education had higher reported beliefs about inclusion than teachers with a lower level of education ($p = .003$). Teachers with a higher level of education had more positive beliefs about inclusion than teachers with a lower level of education ($p = .0007$). Although teachers with a higher level of education had slightly less negative beliefs about inclusion than teachers with a lower level of education ($M=1.85, 2.49, 2.51, \text{ and } 2.60$ for less than high school, high school, 2-year college, and 4-year college or more respectively), the difference was not statistically significant ($p = .35$).

Since there were only 7 teachers who did not have high school diploma and 31 teachers who had a high school diploma, I collapsed the 4 levels of education into 2 levels (two-year-college degree or lower vs. four-year-college degree or higher). Teachers with a four-year-college or higher degree had higher reported belief of inclusion than teachers without a four-year-college degree ($p = .04$). Teachers with a four-year-college or higher degree had more positive beliefs about inclusion than teachers without a four-year-college degree ($p = .03$). Although teachers with a two-year-college or higher degree had slightly less negative beliefs about inclusion than teachers without a two-year-college degree ($M=2.50 \text{ vs. } 2.48$), the difference was not statistically significant ($p = .41$).

The results did not support Hypotheses 1c that teachers who are younger would have higher reported positive beliefs about inclusion than teachers who were older. However, the descriptive analyses showed that teachers who were more than 40 years old had lower mean scores on beliefs about inclusion than teachers who were younger than 30 years of age and younger than 40 years of age. One additional post-hoc analysis was run to confirm there were no effects due to age. Since there were only 52 teachers who

were older than 40 years, I collapsed the 3 levels of age into 2 levels (teachers younger than 30 years of age vs. teachers older than 30 years of age). However, there still was no statistically significant difference between the two groups.

The results indicated that teachers' sense of teaching efficacy (TSES) did not significantly influence their overall beliefs about inclusion or their negative beliefs about inclusion. However, teachers who had a higher sense of teaching efficacy had higher positive beliefs about inclusion than teachers with a lower sense of teaching efficacy ($p = .003$).

Research Question 2

Research question 2 examined whether teachers' prior experience with disabilities, education, age, or sense of teaching efficacy had a relationship with teachers' perceived benefits and risks for children with and without disabilities. The descriptions of beliefs about inclusion based on teachers' age, experience with disabilities, and education are listed in Table 12, Table 13, and Table 14. The test of homogeneity of variances on each predictor was not statistically significant which indicated equal variances among groups. Table 15 lists the parameter estimates for the random effects portion of the unconditional means model.

Table 12

Means and SD for Teacher's Perceived Benefits and Risks for Children with and without Disabilities by Age

		N	Mean	SD
Perceived Benefits for Children with Disabilities	<30	172	3.77	.67
	>30 <40	118	3.85	.67
	>40	52	3.64	.64
Perceived risks for Children with Disabilities	<30	172	2.92	.72
	>30 <40	118	2.79	.72
	>40	52	2.77	.63
Perceived Benefits for Typically Developing Children	<30	172	3.79	.73
	>30 <40	118	3.84	.81
	>40	52	3.77	.73
Perceived Risks for Typically Developing Children	<30	172	2.84	.77
	>30 <40	118	2.80	.88
	>40	52	2.76	.75

Table 13

Means and SD for Teacher's Perceived Benefits and Risks for Children with and without Disabilities by Experience with Disabilities

		N	Mean	SD
Perceived Benefits for Children with Disabilities	No experience	222	3.69	.60
	Has experience	120	3.94	.57
Perceived risks for Children with Disabilities	No experience	222	2.78	.68
	Has experience	120	2.99	.73
Perceived Benefits for Typically Developing Children	No experience	222	3.70	.78
	Has experience	120	3.98	.68
Perceived Risks for Typically Developing Children	No experience	222	2.71	.80
	Has experience	120	2.98	.78

Table 14

Means and SD for Teacher's Perceived Benefits and Risks for Children with and without Disabilities by Education

		N	Mean	SD
Perceived Benefits for Children with Disabilities	Less than High School	7	3.73	.85
	High School	31	3.76	.60
	2-year College	177	3.70	.65
	4-year College or more	127	3.89	.68
Perceived risks for Children with Disabilities	Less than High School	7	2.67	.55
	High School	31	3.01	.66
	2-year College	177	2.82	.75
	4-year College or more	127	2.86	.71
Perceived Benefits for Typically Developing Children	Less than High School	7	3.89	.57
	High School	31	3.67	.70
	2-year College	177	3.70	.74
	4-year College or more	127	3.96	.77
Perceived Risks for Typically Developing Children	Less than High School	7	2.48	.96
	High School	31	2.95	.76
	2-year College	177	2.73	.76
	4-year College or more	127	2.89	.86

Table 15

Covariance Parameter Estimates- Perceived Benefits and Risks (Unconditional Means Model)

Effect		Estimate	SE	Z	P
Perceived Benefits for Children with Disabilities	Between Preschool	.024	.01	1.52	.06
	Within Preschool	.42	.03	12.79	<.0001
Perceived risks for Children with Disabilities	Between Preschool	.013	.01	.97	.17
	Within Preschool	.52	.04	12.81	<.0001
Perceived Benefits for Typically Developing Children	Between Preschool	.04	.02	1.70	.04
	Within Preschool	.53	.04	12.85	<.0001
Perceived Risks for Typically Developing Children	Between Preschool	.04	.02	1.48	.069
	Within Preschool	.61	.05	12.83	<.0001

In terms of the individual teachers' beliefs about inclusion, preschools did not differ in their perceived benefits for children with disabilities ($\tau_{00} = .024, p = .06$), perceived risks for children with disabilities ($\tau_{00} = .013, p = .17$), or perceived risks for typically developing children ($\tau_{00} = .04, p = .069$). There were statistically significant differences among individual teachers' perceived benefits for children with disabilities ($\sigma^2 = .42, p < .0001$), perceived risks for children with disabilities ($\sigma^2 = .52, p < .0001$), and perceived risks for typically developing children ($\sigma^2 = .61, p < .0001$).

Preschools did differ in their perceived benefits for typically developing children ($\tau_{00} = .04, p = .04$). There was even more variation among individual teachers' perceived benefits for typically developing children within preschools ($\sigma^2 = .53, p < .0001$).

Since the results of the unconditional means model indicated that the differences

may exist within groups, a more complex model including the effects of the teacher-level (level-1) predictors was examined. Table 16 lists the parameter estimates for the fixed effects (level-1) portion of the two-level model after controlling the types of disabilities.

Table 16

Fixed Effects of Age, Experience with Disabilities, Education, and TSES on Perceived Benefits and Risks

Effect		Estimate	SE	Df	t	P
Perceived Benefits for Children with Disabilities	Age	-.05	.05	322	-1.02	.31
	Experience with Dis	.22	.09	322	2.60	.01
	Education	.05	.05	322	.92	.36
	Teachers' Sense of Efficacy Scale	.17	.03	322	5.24	<.0001
Perceived Risks for Children with Disabilities	Age	-.07	.05	322	-1.26	.21
	Experience with Dis	.21	.09	322	2.30	.02
	Education	-.05	.06	322	-.83	.41
	Teachers' Sense of Efficacy Scale	.01	.03	322	.43	.38
Perceived Benefits for Typically Developing Children	Age	-.03	.06	322	-.51	.61
	Experience with Dis	.22	.08	322	2.55	.01
	Education	.11	.06	322	1.82	.07
	Teachers' Sense of Efficacy Scale	.10	.04	322	2.47	.01
Perceived Risks for Typically Developing Children	Age	-.01	.06	322	-.16	.87
	Experience with Dis	.24	.09	322	2.63	.01
	Education	.07	.06	322	1.02	.31
	Teachers' Sense of Efficacy Scale	.01	.04	322	.32	.81

The results supported Hypotheses 2a that teachers with at least some prior experience with children or adults with disabilities had higher reported perceived benefits for children with disabilities than teachers without prior experience (M=3.69 vs.

3.94, $p = .01$). Teachers with at least some prior experience with children or adults with disabilities had lower reported perceived risks for children with disabilities than teachers without prior experience ($M=2.78$ vs. 2.99 , $p = .02$). Since items related to perceived risks were coded reversely, higher scores mean lower perceived risks. Teachers with at least some prior experience with children or adults with disabilities had higher reported perceived benefits for typically developing children than teachers without prior experience ($M=3.70$ vs. 3.98 , $p = .01$). Teachers with at least some prior experience with children or adults with disabilities had lower reported perceived risks for typically developing children than teachers without prior experience ($M=2.71$ vs. 2.98 , $p = .01$).

The results did not support Hypotheses 2b that teachers with a higher level of education had higher reported perceived benefits for children with ($p = .36$) and without ($p = .07$) disabilities, nor had lower reported perceived risks for children with ($p = .41$) and without ($p = .31$) disabilities.

The results also did not support Hypotheses 2c that teachers who were younger would have higher reported perceived benefits for children with ($p = .31$) and without ($p = .61$) disabilities than teachers who were older. Younger teachers also did not report lower perceived risks for children with ($p = .21$) and without ($p = .87$) disabilities than teachers who were older. However, the descriptive analyses showed that teachers who were more than 40 years old had slightly lower mean scores on perceived benefits and risks than teachers who were younger than 40 years old.

In terms of Hypotheses 2d, the results indicated that teachers who had a higher

sense of teaching efficacy had higher perceived benefits for children with ($p < .0001$) and without ($p = .01$) disabilities. However, teachers' sense of teaching efficacy did not significantly influence their perceived risks for children with ($p = .38$) and without ($p = .81$) disabilities.

Research Question 3

Research question 3 was set up to analyze how children's prior experience with disabilities and SES may influence parents' beliefs about inclusion. The descriptions of parents' beliefs about inclusion based on their children's experience with disabilities are listed in Table 17. The test of homogeneity of variances on each predictor was not statistically significant which indicated equal variances among groups. Table 18 listed the parameter estimates for the random effects portion of the unconditional means model.

Table 17

Means and SD for Parents' Beliefs about inclusion by Their Children's Experience with Disabilities

		N	Mean	SD
Overall	No experience	418	3.89	.88
MTAI	Has experience	116	4.05	.78
Positive	No experience	223	2.54	.89
Beliefs	Has experience	121	2.63	.89
Negative	No experience	223	3.35	.65
Beliefs	Has experience	121	3.48	.67

Table 18

Covariance Parameter Estimates- MTAI-Parents (Unconditional Means Model)

Effect		Estimate	SE	Z	P
Overall	Between Preschool	.02	.01	1.77	.038
MTAI	Within Preschool	.41	.02	17.05	<.0001
Positive	Between Preschool	.09	.04	2.19	.014
Beliefs	Within Preschool	.67	.04	17.04	<.0001
Negative	Between Preschool	.017	.01	1.22	.112
Beliefs	Within Preschool	.77	.05	17.05	<.0001

In terms of the individual parents' beliefs about inclusion, preschools did differ in their average overall beliefs about inclusion ($\tau_{00} = .02, p = .038$), and their positive beliefs about inclusion ($\tau_{00} = .09, p = .014$) (between group difference). However, preschools did not differ in their negative beliefs about inclusion ($\tau_{00} = .017, p = .112$). There was even more variation among individual parents' overall beliefs about inclusion ($\sigma^2 = .41, p < .0001$), positive beliefs about inclusion ($\sigma^2 = .67, p < .0001$), and negative beliefs about inclusion within preschools ($\sigma^2 = .77, p < .0001$) (within group difference). The results of unconditional means model provides a baseline against which I could compare a more complex model. As was suggested by Raudenbush and Bryk (2002), to make the parameters more interpretable in two level models, I rescaled SES to be centered about its preschool mean. Table 19 listed the parameter estimates for the fixed effects (level-1) portion of the two-level model after controlling the types of disabilities.

Table 19

Fixed Effects of Experience with Disabilities, and SES on MTAI-Parents

Effect		Estimate	SE	df	T	P
Overall	SES	.05	.05	577	.94	.35
MTAI	Experience with Dis	.12	.09	577	1.39	.17
Positive	SES	.02	.06	577	0.32	.75
Beliefs	Experience with Dis	.13	.12	577	1.09	.28
Negative	SES	.07	.06	577	1.07	.28
Beliefs	Experience with Dis	.09	.09	577	1.00	.32

The results did not support Hypotheses 3a that parents whose children had at least some prior experience with children or adults with disabilities had higher reported beliefs about inclusion than parents whose children did not have prior experience ($M=4.05$ vs. 3.89 , $p = .17$). Parents whose children had some experience with disabilities did not have significantly more positive beliefs about inclusion than parents whose children did not have experience with disabilities ($M=2.63$ vs. 2.54 , $p = .28$). Parents whose children had some experience with disabilities did not have significantly more negative beliefs about inclusion than parents whose children did not have experience with disabilities ($M=3.48$ vs. 3.35 , $p = .32$).

The results also did not support Hypotheses 3b that parents with higher SES had higher reported beliefs about inclusion than parents with lower SES ($p = .35$). Parents with higher SES did not have significantly more positive beliefs about inclusion than parents with lower SES ($p = .75$). Parents with higher SES did not have significantly more negative beliefs about inclusion than parents with lower SES ($p = .28$).

Research Question 4

Research Question 4 examined what relation prior experience and SES had on parents' perceived benefits and risks for children with and without disabilities. The descriptions of parents' beliefs about inclusion based on their children's experience with disabilities are listed in Table 20. The test of homogeneity of variances on each predictor was not statistically significant which indicated equal variances among groups. Table 21 lists the parameter estimates for the random effects portion of the unconditional means model.

Table 20

Means and SD for Parent's Perceived Benefits and Risks for Children with and without Disabilities by Experience with Disabilities

		N	Mean	SD
Perceived Benefits for Children with Disabilities	No experience	481	3.79	.86
	Has experience	116	3.93	.71
Perceived risks for Children with Disabilities	No experience	481	2.74	.78
	Has experience	116	2.77	.78
Perceived Benefits for Typically Developing Children	No experience	481	3.80	.85
	Has experience	116	3.94	.84
Perceived Risks for Typically Developing Children	No experience	481	2.73	.89
	Has experience	116	2.84	.87

Table 21

Covariance Parameter Estimates- Parent's Perceived Benefits and Risks (Unconditional Means Model)

Effect		Estimate	SE	Z	P
Perceived Benefits for Children with Disabilities	Between Preschool	.07	.03	2.10	.02
	Within Preschool	.64	.04	17.04	<.0001
Perceived risks for Children with Disabilities	Between Preschool	.003	.006	.48	.31
	Within Preschool	.60	.04	17.10	<.0001
Perceived Benefits for Typically Developing Children	Between Preschool	.08	.04	2.12	.02
	Within Preschool	.66	.04	17.03	<.0001
Perceived Risks for Typically Developing Children	Between Preschool	.04	.02	1.69	.045
	Within Preschool	.75	.04	17.05	<.0001

In terms of the individual parents' beliefs about inclusion, preschools did differ in their perceived benefits for children with disabilities ($\tau_{00} = .07, p = .02$), perceived benefits for typically developing children ($\tau_{00} = .08, p = .02$), and perceived risks for typically developing children ($\tau_{00} = .04, p = .045$). There was even more variation among individual parents' perceived benefits for children with disabilities ($\sigma^2 = .64, p < .0001$), perceived risks for children with disabilities ($\sigma^2 = .60, p < .0001$), perceived benefits for typically developing children ($\sigma^2 = .66, p < .0001$), and perceived risks for typically developing children ($\sigma^2 = .75, p < .0001$). The results of unconditional means model provides a baseline against which I could compare a more complex model. Table 22 listed the parameter estimates for the fixed effects (level-1) portion of the two-level model after controlling the types of disabilities.

Table 22

Fixed Effects of SES and Experience with Disabilities on Parent's Perceived Benefits and Risks

Effect		Estimate	SE	df	t	P
Perceived Benefits for Children with Disabilities	SES	.04	.06	577	.72	.47
	Experience with Dis	.11	.08	577	1.37	.17
Perceived Risks for Children with Disabilities	SES	.11	.05	577	2.13	.03
	Experience with Dis	.08	.07	577	1.08	.28
Perceived Benefits for Typically Developing Children	SES	.05	.06	577	.88	.38
	Experience with Dis	.09	.08	577	1.04	.30
Perceived Risks for Typically Developing Children	SES	.07	.06	577	1.17	.24
	Experience with Dis	.12	.09	577	1.38	.17

The results did not support Hypotheses 4a that parents whose children had at least some prior experience with children or adults with disabilities had higher reported perceived benefits for children with disabilities than parents whose children did not have prior experience ($M=3.79$ vs. 3.93 , $p = .17$). Parents whose children had at least some prior experience with children or adults with disabilities did not have significantly lower reported perceived risks for children with disabilities than parents whose children did not have prior experience ($M=2.74$ vs. 2.77 , $p = .28$). Parents whose children had at least some prior experience with children or adults with disabilities did not have significantly higher reported perceived benefits for typically developing children than parents whose children did not have prior experience ($M=3.80$ vs. 3.94 , $p = .30$). Parents whose children had at least some prior experience with children or adults with disabilities did

not have significantly lower reported perceived risks for typically developing children than parents whose children did not have prior experience ($M=2.73$ vs. 2.84 , $p = .17$).

As for hypotheses 4b, the results only supported that parents with higher SES had lower reported perceived risks for children with disabilities than parents with lower SES ($p = .03$). However, SES did not influence parents' perceived benefits for children with disabilities, and parents' perceived benefits and risks for typically developing children.

Research Question 5

Research question 5 was designed to examine the relationship between different types of disabilities and parents and teachers' beliefs about inclusion. The descriptions of beliefs about inclusion based on different types of disabilities were listed in Table 23. The test of homogeneity of variances on each predictor was not statistically significant which indicated equal variances among groups. As was stated in the results of research question 1 and 3, the results of the unconditional means model provides a baseline against which I could compare more complex model. Table 24 listed the parameter estimates for the fixed effect of different types of disabilities on parents and teachers' beliefs (level-1 portion of the two-level model). However, the results did not indicate that parents and teachers' beliefs about inclusion were influenced by different types of disabilities.

Table 23

Means and SD for MTAI by Types of Disabilities

			N	Mean	SD
Overall	Physical	Teacher	83	3.26	.51
MTAI	Impairment	Parents	152	3.44	.61
	Hearing	Teacher	66	3.28	.64
	Impairment	Parents	99	3.33	.81
	Mental	Teacher	66	3.06	.63
	Retardation	Parents	121	3.23	.58
	Behavior/Emotional	Teacher	64	3.35	.63
	Disorder	Parents	115	3.41	.64
	Visual	Teacher	65	3.32	.56
	Impairment	Parents	110	3.46	.66
Positive Beliefs	Physical	Teacher	83	3.78	.63
	Impairment	Parents	152	3.99	.74
	Hearing	Teacher	66	3.78	.75
	Impairment	Parents	99	3.91	1.10
	Mental	Teacher	66	3.60	.86
	Retardation	Parents	121	3.84	.81
	Behavior/Emotional	Teacher	64	3.82	.83
	Disorder	Parents	115	3.89	.88
	Visual	Teacher	65	3.84	.66
Negative Beliefs	Impairment	Parents	110	3.96	.83
	Physical	Teacher	83	2.47	.75
	Impairment	Parents	152	2.61	.87
	Hearing	Teacher	66	2.54	.69
	Impairment	Parents	99	2.48	.82
	Mental	Teacher	66	2.27	.63
	Retardation	Parents	121	2.29	.89
	Behavior/Emotional	Teacher	64	2.65	.83
	Disorder	Parents	115	2.71	.85
Visual	Teacher	65	2.54	.83	
Impairment	Parents	110	2.71	.94	

Table 24

Fixed Effects of Types of Disabilities on MTAI

Effect		Estimate	SE	Df	t	P
Overall	Teachers	.03	.02	324	1.35	.18
MTAI	Parents	.01	.02	577	.78	.43
Positive	Teachers	.03	.03	324	1.05	.29
Beliefs	Parents	-.00	.02	577	-.00	.998
Negative	Teachers	.03	.03	324	1.20	.23
Beliefs	Parents	.04	.03	577	1.51	.13

Research Question 6

Research question 6 examined the relationship between different types of disabilities and parents and teachers' perceived benefits and risks for children with and without disabilities. The descriptions of perceived benefits and risks based on different types of disabilities are listed in Table 25. The test of homogeneity of variances on each predictor was not statistically significant which indicated equal variances among groups. As was stated in the results of research question 2 and 4, the results of unconditional means model provides a baseline against which I could compare more complex model. Table 26 lists the parameter estimates for the fixed effect of different types of disabilities on parents and teachers' beliefs (level-1 portion of the two-level model). However, the results did not indicate that parents and teachers' perceived benefits and risks were significantly influenced by different types of disabilities.

Table 25

Means and SD for Perceived Benefits and Risks by Types of Disabilities

			N	Mean	SD
Perceived Benefits for Children with Disabilities	Physical Impairment	Teachers	83	3.89	.60
	Hearing Impairment	Parents	152	3.87	.81
		Teachers	66	3.76	.66
	Mental Retardation	Parents	99	3.81	.89
		Teachers	66	3.66	.75
	Behavior/Emotional Disorder	Parents	121	3.77	.86
		Teachers	64	3.81	.67
	Visual Impairment	Parents	115	3.74	.88
		Teachers	65	3.76	.66
	Perceived risks for Children with Disabilities	Physical Impairment	Parents	110	3.89
Physical Impairment		Teachers	83	2.93	.77
		Parents	152	2.80	.80
Hearing Impairment		Teachers	66	2.79	.65
		Parents	99	2.80	.74
Mental Retardation		Teachers	66	2.67	.72
		Parents	121	2.56	.76
Behavior/Emotional Disorder		Teachers	64	3.01	.63
		Parents	115	2.75	.71
Visual Impairment		Teachers	65	2.84	.70
	Parents	110	2.81	.84	
Perceived Benefits for Typically Developing Children	Physical Impairment	Teachers	83	3.86	.78
	Hearing Impairment	Parents	152	3.91	.80
		Teachers	66	3.81	.74
	Mental Retardation	Parents	99	3.79	.97
		Teachers	66	3.72	.82
	Behavior/Emotional Disorder	Parents	121	3.70	.77
		Teachers	64	3.84	.69
	Visual Impairment	Parents	115	3.85	.95
		Teachers	65	3.76	.76
	Perceived Risks for Typically Developing Children	Physical Impairment	Parents	110	3.90
Physical Impairment		Teachers	83	2.81	.78
		Parents	152	2.81	.95
Hearing Impairment		Teachers	66	2.96	.76
		Parents	99	2.72	.91
Mental Retardation		Teachers	66	2.58	.60
		Parents	121	2.54	.79
Behavior/Emotional Disorder		Teachers	64	2.86	.87
		Parents	115	2.84	.89
Visual Impairment		Teachers	65	2.82	.79
	Parents	110	2.86	.83	

Table 26

Fixed Effects of Types of Disabilities on Benefits and Risks of Inclusion

Effect		Estimate	SE	df	t	P
Perceived Benefits for Children with Disabilities	Teachers	-.02	.02	322	-.65	.52
	Parents	.00	.02	577	.02	.98
Perceived Risks for Children with Disabilities	Teachers	.01	.03	322	.43	.66
	Parents	-.01	.02	577	-.61	.54
Perceived Benefits for Typically Developing Children	Teachers	-.01	.03	322	-.46	.64
	Parents	.01	.02	577	.53	.60
Perceived Risks for Typically Developing Children	Teachers	.01	.03	322	.32	.75
	Parents	.02	.02	577	.63	.53

Research Question 7

Research Question 7 was set up to study the relationships between the quality of a preschool, the socioeconomic status of families in this preschool, and parents and teachers' beliefs about inclusion and perceived benefits and risks for children with and without disabilities. Table 27 listed the parameter estimates for the fixed effects portion (level-2) of the unconditional means model.

Table 27

Fixed Effects- MTAI and Perceived Benefits and Risks (Unconditional Means Model)

Effect		Estimate	SE	df	t	P
Overall MTAI	Teachers	3.26	.06	15	54.49	<.0001
	Parents	3.38	.05	15	73.15	<.0001
Positive Beliefs	Teachers	2.76	.07	15	59.87	<.0001
	Parents	3.92	.08	15	47.82	<.0001
Negative Beliefs	Teachers	2.51	.07	15	33.62	<.0001
	Parents	2.57	.05	15	51.79	<.0001
Perceived Benefits for Children with Disabilities	Teachers	3.78	.05	15	72.27	<.0001
	Parents	3.81	.07	15	51.47	<.0001
Perceived Risks for Children with Disabilities	Teachers	2.85	.05	15	59.7	<.0001
	Parents	2.75	.03	15	78.68	<.0001
Perceived Benefits for Typically Developing Children	Teachers	3.79	.06	15	60.23	<.0001
	Parents	3.83	.08	15	48.22	<.0001
Perceived Risks for Typically Developing Children	Teachers	2.80	.06	15	44.01	<.0001
	Parents	2.77	.06	15	46.50	<.0001

Preschools did differ in their teachers' average overall beliefs about inclusion ($\gamma_{00} = 3.26, p < .0001$), positive beliefs about inclusion ($\gamma_{00} = 2.76, p < .0001$), negative beliefs about inclusion ($\gamma_{00} = 2.51, p < .0001$), perceived benefits ($\gamma_{00} = 3.78, p < .0001$) and risks ($\gamma_{00} = 2.85, p < .0001$) for children with disabilities, and perceived benefits ($\gamma_{00} = 3.79, p < .0001$) and risks ($\gamma_{00} = 2.80, p < .0001$) for typically developing children. Preschools also differed in their parents' average overall beliefs about inclusion ($\gamma_{00} = 3.38, p < .0001$), positive beliefs about inclusion ($\gamma_{00} = 2.76, p < .0001$), negative beliefs about inclusion ($\gamma_{00} = 2.57, p < .0001$), perceived benefits ($\gamma_{00} = 3.81, p < .0001$)

and risks ($\gamma_{00} = 2.75, p < .0001$) for children with disabilities, and perceived benefits ($\gamma_{00} = 3.83, p < .0001$) and risks ($\gamma_{00} = 2.77, p < .0001$) for typically developing children. The results of unconditional means model provides a baseline against which I could compare a more complex model. Table 28 listed the parameter estimates for the fixed effects (level-2) portion of the two-level model after controlling the types of disabilities.

Table 28

Fixed Effects of Preschool Quality and Mean SES on MTAI and Perceived Benefits and Risks for Children with and without Disabilities

Effect			Estimate	SE	df	t	P
Overall MTAI	Teachers	Quality	-.09	.13	13	-.75	.46
		MEANSES	.16	.08	13	1.92	.06
	Parents	Quality	-.26	.08	13	-3.09	.008
		MEANSES	.18	.08	13	2.13	.053
Positive Beliefs	Teachers	Quality	-.05	.1	13	-.35	.73
		MEANSES	.04	.10	13	.45	.65
	Parents	Quality	-.41	.15	13	-2.64	.02
		MEANSES	.28	.16	13	1.84	.09
Negative Beliefs	Teachers	Quality	-.17	.14	13	-1.16	.27
		MEANSES	.25	.10	13	2.5	.01
	Parents	Quality	-.04	.12	13	-.31	.76
		MEANSES	.02	.12	13	.17	.87
Perceived Benefits for Children with Disabilities	Teachers	Quality	-.003	.11	13	-.03	.97
		MEANSES	.003	.09	13	.04	.97
	Parents	Quality	-.44	.12	13	-3.58	.003
		MEANSES	.30	.12	13	2.44	.03
Perceived Risks for Children with Disabilities	Teachers	Quality	-.04	.08	13	-.53	.60
		MEANSES	.07	.08	13	.82	.41
	Parents	Quality	-.04	.08	13	-.43	.67
		MEANSES	.07	.09	13	.75	.46
Perceived Benefits for Typically Developing Children	Teachers	Quality	-.06	.13	13	-.44	.67
		MEANSES	.03	.10	13	.26	.79
	Parents	Quality	-.52	.11	13	-4.91	.000
		MEANSES	.42	.16	13	3.92	.002
Perceived Risks for Typically Developing Children	Teachers	Quality	-.09	.10	13	-.92	.38
		MEANSES	.002	.10	13	.02	.98
	Parents	Quality	-.16	.13	13	-1.13	.28
		MEANSES	.001	.14	13	.01	.99

The results did not support Hypotheses 7a that teachers from higher quality preschools would report higher overall beliefs about inclusion, higher positive beliefs about inclusion, and lower negative beliefs about inclusion than teachers in lower level

quality preschools. The results did support Hypotheses 7a that parents with children in higher quality preschools reported higher overall beliefs about inclusion, higher positive beliefs about inclusion, and lower negative beliefs about inclusion than parents with children in moderate quality preschools ($p = .008$, $p = .02$, $p = .01$ for overall beliefs about inclusion, positive beliefs about inclusion, and negative beliefs about inclusion respectively).

The results did not support Hypotheses 7b that parents with children from a preschool in which the socioeconomic status of families was higher had higher reported overall beliefs about inclusion, higher reported positive beliefs about inclusion, and lower reported negative beliefs about inclusion than those from a preschool in which the socioeconomic status of families was lower. The results supported Hypotheses 7b that teachers from a preschool in which the socioeconomic status of families was higher had lower reported negative beliefs about inclusion than those from a preschool in which the socioeconomic status of families was lower ($p = .01$). However, the results did not supported Hypotheses 7b that teachers from a preschool in which the socioeconomic status of families was higher had higher reported overall beliefs about inclusion and positive beliefs about inclusion.

The results supported Hypotheses 7c that parents with children from a higher quality preschool had higher reported perceived benefits for inclusion for children with ($p = .003$) and without ($p = .000$) disabilities than parents in a moderate level quality preschool. However, the results did not support Hypotheses 7c that parents with children from a higher quality preschool had lower reported perceived risks of inclusion for

children with and without disabilities than parents in a moderate quality preschool. The results also did not support Hypotheses 7c that teachers from a higher quality preschool had higher reported perceived benefits and lower reported perceived risks of inclusion for children with and without disabilities than teachers in a moderate quality preschool.

The results supported Hypotheses 7d that parents from a preschool in which the socioeconomic status of families was higher had higher reported perceived benefits for children with ($p = .03$) and without ($p = .002$) disabilities than those from a preschool in which the socioeconomic status of families was lower. However, the results did not support Hypotheses 7d that parents from a preschool in which the socioeconomic status of families was higher had lower reported perceived risks for children with and without disabilities than those from a preschool in which the socioeconomic status of families was lower. The results also did not support Hypotheses 7d that teachers from a preschool in which the socioeconomic status of families was higher had higher reported perceived benefits and lower reported perceived risks for children with and without disabilities than those from a preschool in which the socioeconomic status of families was lower. A summary of the findings by hypothesis is provided in Table 29.

Table 29

Summary of Findings

	Predictors	General Beliefs	Positive Beliefs	Negative Beliefs	Benefits for Children with Disabilities	Risks of children with Disabilities	Benefits for Typically Developing Children	Risks for Typically Developing Children
Teachers	Experience with Disabilities	√	√	√	√	√	√	√
	Education	×	√	×	×	×	×	×
	Age	×	×	×	×	×	×	×
	Efficacy	×	√	×	√	×	√	×
	Quality	×	×	×	×	×	×	×
	Mean SES	×	×	√	×	×	×	×
Parents	Experience with Disabilities	×	×	×	×	×	×	×
	SES	×	×	×	×	√	×	×
	Quality	√	√	√	√	×	√	×
	Mean SES	×	×	×	√	×	√	×

×: No Significant Effect

√: Significant Effect

CHAPTER V

DISCUSSION

Previous research in the United States has focused on parents and teachers' beliefs about early childhood inclusion and the factors that influence their beliefs about inclusion. There have been fewer studies in P.R. China, however, that have examined parents and teachers' beliefs about preschool inclusion. Further, fewer studies in P. R. China have investigated the relationship between individual characteristics of parents and teachers and their beliefs about inclusion.

The present study examined parents and teachers' general beliefs about inclusion and their perceived benefits and risks of inclusion for children with and without disabilities. In order to study the research questions, Vygotsky's social-cultural theory, Goodenough's belief theory, and Bronfenbrenner's bioecological theory were utilized as the theoretical perspectives. Vygotsky (1987) believed that the critical issue of a disability is related to the expectations and attitudes of the society towards individuals with disabilities. The development of individuals and the culture/history in which individuals are embedded does not occur in isolation (Vygotsky, 1978). Culture/history as the source of the development of individuals does not produce anything over and above what is given by individual nature (Vygotsky, 1929). In order to study the beliefs about parents and teachers towards early inclusion, it is important to detect variables that influence both cultural/historical and individual differences. Correspondingly,

Goodenough (1981) indicated beliefs are learned within the context of culture, and both individual and cultural beliefs influence individuals' decision-making. Both parents and teachers are the developing *person* in the current study. Parents and teachers' characteristics, such as experience with children or adults with disabilities, teachers' education and age, and parents' SES, were studied in relation to their beliefs about inclusion. Since personal characteristics also include the characteristics of all parties involved in interpersonal interaction (Bronfenbrenner & Morris, 1998), the characteristics of children with disabilities who may engage in interpersonal activities with teachers and parents were also taken account in this study. The characteristics were the hypothetical children's different types of disabilities. Further, the characteristics in the public/cultural level, the quality of each preschool and the average SES of parents in each preschool, were included to more thoroughly explore parents and teachers' beliefs about preschool inclusion in P. R. China.

Generally speaking, parents and teachers reported moderately positive beliefs about inclusion and perceived benefits for children with and without disabilities. This was true even when participants were grouped according to parents and teachers' prior experience with disabilities, parental SES level, teachers' age and education, and hypothetical children's different types of disabilities. This is consistent with the studies by Rafferty, et al. (2001) and Rafferty and Griffin (2005) who found that parents and teachers agreed that inclusion would benefit children with disabilities by gaining acceptance through inclusion, developing independence in self-help skills, having more chances to participate in variety of activities, feeling better about themselves, and being

more prepared for the real world. It is believed that through inclusion, typically developing children increase their sensitivity to others, better understand human diversity, and are more aware of their own strengths and weaknesses.

Similar to the findings by Rafferty, et al. (2001) and Rafferty and Griffin (2005), the present study found that parents and teachers also agreed that inclusion might have a negative impact on children with and without disabilities. As was indicated from individual items in the survey, the current study revealed that the perceived negative impact on children with disabilities included inadequate special help, less attention from teachers, inadequate special services, rejection by teachers and peers, unqualified teachers, and a negative impact on their emotional development. The perceived negative impact on typically developing children included being injured or frightened by children with disabilities, learning undesirable behaviors, receiving less attention from teachers, and slowing their learning down. The present study did not find any effect of different disabilities (as measured by hypothetical children) on parents and teachers' beliefs about inclusion and their perceived benefits and risks for children with and without disabilities. Findings from present study also demonstrated some relationships between beliefs about inclusion and the characteristics of the participants and the preschools.

Relationship Between Teachers' Prior Experiences with Disabilities, Education, Age, Sense of Teaching Efficacy, and Beliefs

The findings revealed that teachers' prior experiences with children or adults with disabilities significantly influenced their overall beliefs, their positive and negative beliefs about inclusion, and their perceived benefits and risks for children with and

without disabilities. Results from these analyses are consistent with results of previous studies (Liu, et al., 2000; Rafferty, et al., 2001; Rafferty & Griffin, 2005; Stoiber, et al., 1998; Zhang, 2006), which also found the positive relationships between teachers' prior experiences with disabilities and their beliefs about inclusion. Repeated evidence was found that teachers' experience with disabilities would influence their attitudes and expectations on how children might perform in inclusive classrooms and the outcomes of inclusion. For instance, Zhang (2006) indicated that teachers in special preschools had higher evaluation of the abilities of children with disabilities; while teachers in semi-inclusive preschools had more positive attitudes towards inclusion. Teachers with more experience with disabilities shared more positive beliefs regarding the implementation of inclusion. These findings indicate because teachers differ in their experience with individuals with disabilities and their opportunities to access information regarding inclusion, it seems that they may also differ in their beliefs about inclusion. Experiential factors appear to play an important role in the development of teachers' inclusion beliefs. Beliefs are a complex phenomena and appear to develop on the basis of various situations and experiences (Stoiber, et al., 1998).

These findings also provide implications for pre-service and in-service education programs. From Vygotsky's perspective (1978), any learning an individual encounters has a previous history. Individuals' beliefs are developing over time. Through previous experience with individuals with disabilities, teachers learn about the characteristics of disabilities, emotional and behavioral aspects of individuals with disabilities, and the developmental status of individuals with disabilities. When serving children with

disabilities, teachers with experience with individuals with disabilities may form more appropriate expectations and goals for children with disabilities in inclusive classrooms. Therefore, in order to achieve high quality programs to meet parents and children's needs, it was not only important to include academic content related to individuals with disabilities and their families in teacher preparation programs, but also important to incorporate practical training/experience of serving individuals with disabilities and their families into teacher preparation programs (Mandell & Murray, 2005).

Teachers with a higher level of education had more positive beliefs about inclusion than teachers with a lower level of education. Although teachers' level of education did not significantly influence their overall beliefs about inclusion and their perceived benefits and risks for children with and without disabilities, teachers whose education level was less than high school had consistently lower scores on the beliefs' scales than teachers whose education level was a 4-year college degree or more. Most teachers in this study had a 2-year college degree, a 4-year college degree, or more education. There were only 7 teachers whose education level was less than high school and 31 teachers who had a high school education. Therefore, the sample size for each group influenced the power to statistically identify the possible effect of education on teachers' beliefs about inclusion. In addition, one of the challenges of the present study is related to the classification of education. The demographic survey did not measure whether teachers had courses in special education, how many courses they had in special education, or what was the quality of their degree. Therefore, it would be an important

next step in future research to better differentiate how the type and quality of teachers' education may influence teachers' beliefs about inclusion.

The findings indicated that teachers' age did not influence their overall beliefs, their positive and negative beliefs about inclusion, or their perceived benefits and risks for children with and without disabilities. Because of the sample size of teachers who were older than 40 years (N=52), this study could not confirm the results of Peng's study (2000) that teachers under 40 years of age had more positive beliefs about inclusion than teachers older than 40 years of age. However, teachers who were older than 40 years old consistently had lower mean scores on belief scales than the other teachers (<30 and >30 <40 years old). The small difference between younger teachers and older teachers may be related to what Bronfenbrenner refers to as macrosystem influences. As was mentioned in Chapter II, the earliest legislation in P.R. China related to educating children with disabilities is the *Compulsory Education Law* in 1986. This law emphasized the enrollment of children with visual impairments, hearing impairments and mental retardation in regular classrooms and special schools. In response to this national wide compulsory education mandate, the number of enrollment of children with disabilities in regular classrooms/schools and special schools increased from 57,600 in 1988 to 129,400 in 1992 and 364,700 in 2003 (Deng & Holdsworth, 2007), although most children with disabilities are still not included in regular classrooms/schools. Corresponding to the legislation in P. R. China, training and education for older teachers was less likely to be supportive of children with disabilities or inclusion (Peng, 1999). From Vygotsky's viewpoint (1994), the degrees and types of cultural influence on an individual's

development depends on the individual's emotional experiences, his/her relation to the situation, and his/her inner attitude to different aspects of the environment. In other words, Vygotsky believed that individuals and their experience are shaped by the cultural/historical contexts around them, while at the same time individuals influence their contexts. Therefore, it may also be possible that the traditional perspectives towards people with disabilities have more of a powerful interactive effect on older teachers than younger teachers. Future studies with larger samples of older teachers would need to confirm this speculation.

As was mentioned by Soodak and Podell (1994), teaching efficacy may influence teachers' willingness to take responsibility for educating children regardless of their abilities and their background (e.g. SES). Teachers with a higher sense of teaching efficacy were more willing to take the effort to meet the needs of children with disabilities (Soodak, et al., 1998). The findings in the present study indicated that teachers' sense of teaching efficacy had a significantly positive effect on their positive beliefs about inclusion and perceived benefits for children with and without disabilities. Although teachers' sense of teaching efficacy did not have a significant effect on their negative beliefs about inclusion or lower perceived risks for children with and without disabilities, teachers with a higher sense of teaching efficacy had lower negative beliefs about inclusion, and lower perceived risks for children with and without disabilities. The possible explanation regarding how teaching efficacy may influence teachers' positive but not negative beliefs about inclusion may relate to teachers' actual experience of serving children with disabilities. There were only 53 teachers who actually served children with disabilities in

their classrooms. Overall, teachers have limited experience with and limited knowledge about the weaknesses of children with disabilities. Therefore, it is less likely for teachers to reflect on their negative beliefs about inclusion and perceived risks for children with and without disabilities.

In summary, the present study identified a moderate level of support for inclusion from typical preschool teachers. The findings were consistent in terms of teachers' general beliefs about inclusion, negative/positive beliefs about inclusion, and perceived benefits and risks for children with and without disabilities. With respect to the impact of teachers' personal characteristics on their beliefs about inclusion, the present study revealed the importance of teachers' prior experience with individuals with disabilities, education, and sense of teaching efficacy.

Relationship Between Parents' Prior Experiences with Disabilities, SES, and Beliefs

In terms of the effect of parents' characteristics on beliefs, parents with higher SES had lower reported perceived risks for children with disabilities than parents with lower SES. Although parents' SES did not significantly influence their overall beliefs about inclusion, their positive and negative beliefs about inclusion, their perceived benefits for children without disabilities, and their perceived benefits and risks for typically developing children, parents with higher SES had slightly higher scores on these beliefs' scales than parents with lower SES. This may indicate a trend toward more positive views of inclusion. Also, although children's prior experience with children or adults with disabilities did not significantly influence parents' beliefs about inclusion and perceived benefits and risks for children with and without disabilities, parents whose

children had prior experience with disabilities had slightly higher mean scores on these beliefs' scales than parents whose children did not have prior experience with disabilities. One possible explanation for these results is related to socialization toward inclusion. Parents with higher SES may have more access to updated information regarding educating young children (both with and without disabilities). Parents with higher SES or their children with experience with disabilities may be more willing to know the best way of educating young children (both with and without disabilities). It is also possible that parents with higher SES and their children with experience with disabilities have more chances to reflect on the advantages and disadvantages of inclusion. Bronfenbrenner's macrosystem influences could be a possible explanation for the tiny effect of SES and experience with disabilities on parents' beliefs about inclusion. According to the parent survey, there were only 17 parents in this sample whose children had been in a classroom with a child with a disability. This means their children only have limited actual experience with children with disabilities. As was mentioned in Chapter II, individuals in China may have some misunderstandings or lack of knowledge about disabilities. Traditional Chinese perceptions also are less likely to accept individuals with disabilities. Therefore, regardless of parental SES level or experience with disabilities, their beliefs about inclusion may be more likely to be influenced by the social context (e.g. the traditional perceptions of children with disabilities and society's expectations or perspectives of children with disabilities). As more children become included in typical preschool classrooms in P. R. China in the future it will be important to more thoroughly

examine changes in parents' beliefs about inclusion and perceptions of children with disabilities.

Relationship Between Average SES and Quality of Preschools on Parents and Teachers' Beliefs

Findings from the present study also demonstrated some relationships between beliefs about inclusion and the characteristics of the preschools. Parents with children in higher quality preschools reported higher overall beliefs about inclusion, higher positive beliefs about inclusion, lower negative beliefs about inclusion, and higher reported perceived benefits of inclusion for children with and without disabilities than parents with children in moderate quality preschools. These findings, in fact, likely reflect the effect of social context on parents' beliefs about inclusion. Parents whose children are in preschools with higher quality are more likely to be satisfied with the preschools' education and services. However, parents whose children are in preschools with moderate quality may have more concerns about the preschools' abilities to serve children with disabilities. Some parents whose children are in moderate quality preschools wrote on the margins of the surveys (hard copies) that they did not think their preschools could include children with disabilities. They did not think the preschool had enough resources to support both children with and without disabilities. They doubted the teachers' qualification and administrators' abilities in developing appropriate inclusive programs. A similar result was found in the study by Seery, et al. (2000). The authors indicated that parents were more likely to show positive perspectives of inclusion when their confidence in the programs' ability to meet the children's needs increased.

In contrast, preschool quality did not significantly influence teachers' overall beliefs about inclusion, positive beliefs about inclusion, negative beliefs about inclusion, or their perceived benefits and risks of inclusion for children with and without disabilities. One possible explanation to these results is related to the evaluation of preschool quality. As was mentioned by Cassidy, Hestenes, Hansen, Hegde, and Shim (2005), the measurement of preschool quality often includes two aspects, structure and process. Most attention is typically paid to the easily regulated structural components (e.g. material, equipment, teacher qualifications, and adult/child ratios) of the program. However, it is also important to pay attention to the process quality (e.g. actives and interactions) within programs. In the present study, the evaluation of preschool quality in the two Provinces are mainly based on the following criteria: Preschool funding, space of the preschool, staff education, equipment, safety and health issues, and documents related to lesson planning, training, and promoting honor in children and teachers, and so on. Therefore, the evaluation focuses more on the preschools' structure and less on interactions. Higher preschool quality based on the evaluation of structural aspects does not necessary mean that teachers have the confidence and capability to meet children's needs through day-to-day interaction. In addition, the quality ratings of preschools in the two provinces selected have 6 levels. The preschools included in the sample, however, are higher quality (first two levels) programs, Demonstration preschools of the Province and first-level preschools of the Province. For instance, the education levels of teachers in the two types of preschool are similar: Most teachers in each type of preschool have more than 2-

year college degrees in related areas. This may also reduce the power to identify how preschool quality may influence teachers' beliefs about inclusion.

An ecological perspective acknowledges environmental influences on the development of an individual's beliefs. The present study did suggest that the context (the average SES of families) had a significant effect on individuals' beliefs about inclusion. For example, teachers from a preschool in which the socioeconomic status of families was higher had lower reported negative beliefs about inclusion and higher reported perceived benefits for children with and without disabilities than those from a preschool in which the socioeconomic status of families was lower.

However, the average socioeconomic status of families in each preschool did not significantly influence parents' beliefs about inclusion and their perceived risks for children with and without disabilities. The average socioeconomic status of families in each preschool also did not significantly influence teachers' overall beliefs about inclusion, positive beliefs about inclusion, and their perceived risks for children with and without disabilities. The reason for the limited effect of SES on beliefs about inclusion may be related to the sample in this study. The 16 preschools are all located in urban areas and are higher quality programs. Most parents completed the survey online. Even though the participants' SES in this study exhibited a wide range and was normally distributed, generally speaking, parents in this study are from middle-class families in P. R. China, which reduce the power to find a strong statistical effect of SES on individual's beliefs about inclusion.

In general, the present study investigated the effects of public levels of variables

(the quality of a preschools and the socioeconomic status of families in this preschool) on parents and teachers' beliefs about inclusion. The quality of preschools significantly influenced parents' beliefs about inclusion. Teachers' negative beliefs about inclusion and their perceived benefits of inclusion for children with and without disabilities were significantly influenced by the average socioeconomic status of families in their preschools.

Relationship Between Types of Disabilities and Parents and Teachers' Beliefs

It is very interesting that hypothetical children's different types of disabilities did not significantly influence parents and teachers' beliefs about inclusion and their perceived benefits and risks for children with and without disabilities. One explanation of these results is related to Bronfenbrenner's macrosystem influences. Legislation regarding the education of children with disabilities in P. R. China only focuses on three types of disabilities, visual impairments, hearing impairments, and mental retardation. Children with behavioral or emotional disorders are seldom mentioned in legislation. It is likely that people in China who are not in the area of special education have little knowledge of different types of disabilities. For example, most parent and teachers I interviewed during the pilot study did not know the definition of behavioral disorder, autism, and Down syndrome, and the characteristics of these disabilities.

Parents and teachers in this study also did not have a lot of experience with children/adults with disabilities. Parents and teachers in this study who had some experience with children or adults with disabilities only identified individuals with visual/hearing/physical impairments and mental retardation as individuals with

disabilities. None of them reported that they had experience with children or adults with behavioral or emotional disorders. Two parents and two teachers from China who helped read through the Chinese versions of each measure mentioned that they thought behavioral or emotional disorders were common. When recruiting preschools, many directors also thought behavioral or emotional disorders were a common situation which might happen to every student if the student had pressure. Even though there was a scenario with descriptions about each type of disability to help parents and teachers understand the meaning of each disability, their actual experience likely played a more important role when they reported their beliefs about inclusion. As was reflected from parents and teachers' mean scores of belief scales, parents and teachers had consistently lower scores when including hypothetical children with mental retardation than when including hypothetical children with the other types of disabilities. Parents and teachers' mean scores of their belief scales for including children with behavioral or emotional disorders are similar to their mean scores for including children with visual/hearing/physical impairments. A similar concern regarding the recognition and diagnoses of different types of disabilities by society was reflected in Deng and Holdsworth's study (2007). Deng and Holdsworth (2007) mentioned that the Chinese government viewed the education of children with mental retardation, hearing impairments and visual impairments as the weakest part of the compulsory education. Most people did not recognize many disabilities, such as learning disabilities and autism. Therefore, the education of children with any of the three types of disabilities was given priority.

Above results provide an important implication for the education of young children with disabilities. There is no doubt that national educational laws show respect for the rights of children with disabilities in P. R. China. However, in order to provide suitable and appropriate education for all children, more information about different types of disabilities (e.g. the definitions, characteristics, diagnosis, symptoms, therapies, services, supports, and so on) should be available and accessible to the people in P. R. China. In order to provide quality inclusive programs for all children, it is important to understand parents and teachers' beliefs about inclusion and value their concerns and perceptions towards inclusion. Special attention should be paid to the quality of teachers' pre-service and in-service programs. In addition to facilitating the development of teachers' pedagogical orientations and understanding of disability, it is also important to incorporate academic content and practical training/experience related to individuals with disabilities and their families. For instance, the pre-service and in-service programs could help teachers to individualize their classrooms. Teachers could learn how to create an environment that welcomes children with and without disabilities and their families by analyzing the curriculum to reflect children and their families' individual needs. Since high quality inclusive programs require both structural and process quality to meet children's individual needs, teacher preparation programs addressing specialized instruction, strategies, and interactions with children's individual needs would be essential. Therefore, teacher preparation programs should pay simultaneous attention to the quality of teacher-child interactions. Programs should not only provide course work related to effective teacher-child interaction, but also provide hands-on experiences for

pre-service and in-service teachers. By doing so, teachers could reflect on what they learned and what they experienced, as well as on how to bridge the gap between the ideal visions of teacher-child interaction and the realities that are present.

Limitations

As with all studies there are limitations which need to be taken into account when interpreting these findings. First, the sample size for some individuals with different backgrounds and the sample recruitment may have weakened the identification of effects of individual and contextual characteristics on beliefs. For instance, there were only a small number of parents and teachers who had children with disabilities in their classrooms; preschools were recruited from higher quality programs; and most parents were from middle-class families. Therefore, limited results were founded related to the effects of experience with disabilities and preschool quality on beliefs about inclusion.

The second limitation is related to the methodology. To achieve generalization, the present study utilized a survey methodology which has an important strength with regard to measurement generality. However, at the same time, survey methodology also causes researchers to miss the chances to identify participants' deeper feelings regarding preschool inclusion. For instance, if focus group interviews were added into the research design I would have more opportunities to learn how parents and teachers view children with behavioral and emotional disorders; how their knowledge of disabilities may influence their beliefs about inclusion; or how their expectation of the preschools and their children may influence their beliefs about inclusion.

Third, present study is based on Bronfenbrenner's bioecological theory. One

important aspect of an ecological perspective (Bronfenbrenner, 1977, 1979) concentrates on social and interpersonal processes or dynamic mechanisms through which the described patterns or outcomes are generated and sustained over time. The present study was set up to include characteristics at both macrosystem and microsystem. However, because of the limited time, I could not investigate the relationships between individual/cultural characteristics and beliefs about inclusion through processes.

As the core of Bronfenbrenner's bioecological theory (Bronfenbrenner & Morris, 1998), proximal processes constitute the typical everyday activities that occur between developing person, the people with whom they commonly interact, and the important objects and symbols in their environment. Therefore, it is valuable for future studies to investigate parents and teachers' beliefs about inclusion, focusing on reciprocal interactions between parent-child, teacher-child, parent-parent, parent-teacher, and teacher-teacher in the social and cultural contexts (both spatial and temporal contexts). The present study detects parents and teachers' beliefs about inclusion in the spatial contexts. However, research on parents and teachers' beliefs about inclusion over time is also important.

Conclusions and Implications

Developing individuals combine a number of ecological variables to constitute a unique culture (Bronfenbrenner, 1979). Parents and teachers have the right to participate in the process of decision-making in order to provide children with an appropriate education. Beliefs, a mediator in decision making, will influence people's behavior (Goodenough, 1981). As for preschool inclusion, parents and teachers' beliefs about

inclusion can directly influence their choice of sending/teaching children in particular programs. Their beliefs about inclusion can also indirectly influence their children's socialization, for example teaching the children about different types of disabilities, showing their positive/negative emotions or behaviors to people with disabilities, and directing their children's access to people with disabilities (Guralnick, 2001). Therefore, the topic of parents and teachers' beliefs about preschool inclusion is important to study in order to improve the quality education of all children.

The present study focused on the beliefs about preschool inclusion in P. R. China and revealed both positive and negative aspects regarding Chinese parents and teachers' beliefs about early inclusion. The data were collected from two provinces in Northern China. One province represents the higher income, education, and expense in Northern China. The other province represents the middle income, education, and expense in Northern China. Well-developed cities in China, such as Beijing, were not included in the present study to reflect parents and teachers' beliefs about inclusion in typical cities in Northern China. Parents and teachers in this study showed moderate positive beliefs about inclusion and perceived benefits for children with and without disabilities. Further, the present study broadens the understanding of the relationships between characteristics of individual parents and teachers and their beliefs about inclusion. Individuals vary in their backgrounds, such as previous experiences, SES, education, and age. The present study not only investigates parents and teachers' beliefs based their different backgrounds (between group differences), but also detects individual differences within each group, which provides a comprehensive picture of parents and teachers' beliefs about inclusion.

Unlike the parents in the studies in the United States, Europe, and Canada, the parents and teachers in the present study had limited knowledge about different types of disabilities. Disabilities, such as behavioral and emotional disabilities, were not recognized as disability types by the public or effectively diagnosed. Correspondingly, many children with disabilities who were not diagnosed were less likely to be served by the schools. Therefore, it is important to provide more opportunities and resources for individuals in China to learn about the definitions of different disabilities and what different disabilities represent.

The present study also focuses on the effect of public level variables, the quality of the preschool, and the socioeconomic status of families in this preschool, on individuals' beliefs. By doing so, the present study contributes to the literature on parents and teachers' beliefs about inclusion in relation to the cultural context of Chinese education.

The present study also provides some implications for practitioners and researchers. This study reveals different concerns of parents and teachers towards preschool inclusion, which implies the importance of individualizing the inclusive programs to meet the needs of families and to support teachers in inclusive programs. As was mentioned previously, the attitudes of parents and teachers can directly influence the decisions of administrators through choosing preschool programs and exerting considerable demands on the program, as well as indirectly influence the program through socializing their children toward certain developmental and social goals. Therefore, special efforts should be placed on how to reduce parents and teachers'

concerns about the negative impact or risks of inclusion on children. In terms of the inclusion of children with mental retardation, future research should continue to examine the effectiveness of different educational approaches, developmental needs, and parental expectations for these children. Special work should also be done to improve the understanding of disabilities (esp. behavioral and emotional disorders, autism, Down syndrome, and so on) by professionals, parents, children, and society in P. R. China, as well as to provide adequate services for children with disabilities.

The present study indicates some possible effects of program quality on individuals' beliefs about inclusion. However, as was discussed previously, most attention to program quality is given to the easily regulated structural quality of the program (e.g. material, equipment, teacher qualifications, and adult/child ratios). Therefore, future research and practice examining the effect of program quality on beliefs about inclusion should pay equal attention to the process quality of the program (e.g., activities and interactions). From ecological perspectives, it is also valuable to study parents and teachers' beliefs about inclusion focusing on reciprocal interaction in the social and cultural contexts (spatial and temporal). Attention to each of these issues may result in more positive experiences and greater developmental gains for young children with and without disabilities in P R China.

REFERENCES

- Bennett, T., DeLuca, D., & Bruns, D. (1997). Putting inclusion into practice: Perspectives of teachers and parents. *Exceptional Children, 64*, 115–31.
- Bronfenbrenner, U. (1974). *Is early intervention effective? A report on longitudinal evaluations of preschool programs*. Washington, D. C.: Office of Child Development, Dept. of Health, Education, and Welfare.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Bronfenbrenner, U. (1987). Forward: Family support: The quiet revolution. In S. Kagan, D. Powell, B. Weissbourd, & E. Zigler (Eds.), *America's family support programs* (pp. xi-xvii). New Haven, CT: Yale University Press.
- Bronfenbrenner, U. (1993). The ecology of cognitive development: Research models and fugitive findings. In R. Wozniak & K. Fischer (Eds.), *Development in context: Acting and thinking in specific environments* (pp. 3-44). Hillsdale, NJ: Erlbaum.
- Bronfenbrenner, U., & Morris, P. A. (1998). The ecology of developmental process. In W. Damon (Series Ed.) & R. M. Lerner (Vol. Ed), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (5th ed., pp. 993-1028). New York: John Wiley.
- Buyse, V., Wesley, P., Keyes, L., & Bailey, D. B. (1996). Assessing the comfort zone of child care teachers in serving young children with disabilities. *Journal of Early Intervention, 20*, 189–203.

- Cassidy, D. J., Hestenes, L. L., Hegde, A., Mims, S., Hestenses, S. (2005). Measurement of quality in preschool child care classrooms: An exploratory and confirmatory factor analysis of the Early Childhood Environment Rating Scale-Revised. *Early Childhood Research Quarterly*, 20 (3), 345-360
- Chen, Y. (1995). Mental health in China. *World Health*, 48(5), 20.
- Chen, Y., Chen, H., & Peng, X. (1994). Teachers' attitudes toward children with mental retardation learning in regular class. *Chinese Journal of Special Education*, 2, 1-6.
- China Disabled Persons' Federation (CDPF). Retrieved February 7, 2007, from <http://www.cdpf.org.cn/shiye/sj-000b.htm>.
- Clough, P., & Nutbrown, C. (2004). Special educational needs and inclusion: Multiple perspectives of preschool educators in the UK. *Journal of Early Childhood Research*, 2(2), 191-211.
- Convention on the Rights of the Child (1989). Retrieved February 7, 2007, from <http://www.unhchr.ch/html/menu3/b/k2crc.htm>.
- Deng, M., & Holdsworth, J. C. (2007). From unconscious to conscious inclusion: Meeting special education needs in West China. *Disability & Society*, 22(5), 507-522.
- Diamond, K. E., & LeFurgy, W. G. (1994). Attitudes of parents of preschool children toward integration. *Early Education and Development*, 5, 69-77.
- Dinnebeil, L. A., McInerney, W., Fox, C., & Juchartz-Pendry, K. (1998). An analysis of the perceptions and characteristics of child care personnel regarding inclusion of

- young children with special needs in community-based programs. *Topics in Early Childhood Special Education*, 18, 118–28.
- Eiserman, W. D., Shisler, L., & Healey, S. (1995). A community assessment of preschool providers' attitudes toward inclusion. *Journal of Early Intervention*, 19, 149–67.
- Gallagher, P. A. (1997). Teachers and inclusion: Perspectives on changing roles. *Topics in Early Childhood Special Education*, 17, 363–86.
- Gemmell-Crosby, S., & Hanzlik, J. R. (1994). Preschool teachers' perceptions of including children with disabilities. *Education and Training in Mental Retardation and Developmental Disabilities*, 29, 279–90.
- Goodenough, W. (1981). *Culture, language, and society*. Menlo Park: Benjamin/Cummings Publishing.
- Guralnick, M. J. (1994). Mothers' perceptions of the benefits and drawbacks of early childhood mainstreaming. *Journal of Early Intervention*, 18, 168–83.
- Guralnick, M. J. (2001). *Early childhood inclusion: Focus on change*. Baltimore: Paul H. Brookes.
- Hadadian, A., & Hargrove, L. (2001). Child care perspectives on inclusion: Do we have a long way to go? *Infant-Toddler Intervention: The Transdisciplinary Journal*, 11, 49–58.
- Hatcher, L. (1994). *A step-by-step approach to using the SAS system for factor analysis and structural equation modeling*. Cary, NC: SAS Institute, Inc.

- Kucuker, S., Acarlar, F., & Kapci, E. G. (2006). The development and psychometric evaluation of a support scale for pre-school inclusion. *Early Child Development and Care, 176* (6), 643-659.
- Ladd, G. W. (1988). Friendship patterns and peer status during early and middle childhood. *Journal of Developmental and Behavioral Pediatrics, 9*, 229–38.
- Lieber, J., Capell, K., Sandall, S. R., Wolfberg, P., Horn, E., & Beckman, P. (1998). Inclusive preschool programs: Teachers' beliefs and practices. *Early Childhood Research Quarterly, 13*, 87–105.
- Liu, C., Du, X., & Yao, J. (2000). A study of regular primary school teachers' acceptance of special needs children. *Chinese Journal of Special Education, 3*, 34-36.
- Liu, Z. G. (2001). Chinese Culture and Disability: Information for U.S. Service Providers. Retrieved February 7, 2007, from <http://cirrie.buffalo.edu/monographs/china.html#s4>
- Marchant, C. (1995). Teachers' views of integrated preschools. *Journal of Early Intervention, 19*, 61–73.
- McConkey, R., & Bhlirgri, S. (2003). Children with autism attending preschool facilities: The experience and perceptions of staff. *Early ChildDevelopment and Care, 173* (4), 445-452.
- Miller, L. J., Strain, P. S., Boyd, K., Hunsicker, J. M., & Wu, A. (1992). Parental attitudes toward integration. *Topics in Early Childhood Special Education, 12*, 230–246.

- Nespor, J. (1987). The role of beliefs in the practice of teaching. *Journal of Curriculum Studies, 19*, 317-328.
- Niu, Y., Liu, Z., & Tian, B. (2005). Parents' attitude toward children with disabilities learning in regular class. *Chinese Journal of Rehabilitation Theory and Practice, 1*, 72-73.
- Nutbrown, C., & Clough, P. (2004). Inclusion and exclusion in the early years: Conversations with European educators. *European Journal of Special Needs Education, 19*(3), 301-315.
- Odom, S. L., Peck, C. A., Hanson, M. J., Beckman, P., Lieber, J., Brown, W. H., Horn, E., & Schwartz, I. S. (1996). Inclusion at the preschool level: An ecological systems analysis. *Social Policy Report: Society for Research in Child Development, 10* (2-3), 18-30.
- Peck, C. A., Carlson, P., & Helmstetter, E. (1992). Parent and teacher perceptions of outcomes for typically developing children enrolled in integrated early childhood programs: A statewide survey. *Journal of Early Intervention, 16*, 53-63.
- Peng, X. (1999). Study on teachers' attitude toward the programs for handicapped pupils in regular class. *Chinese Journal of Special Education, 2*, 24-28.
- Peng, X. (2000). Teachers' attitude toward mainstreaming handicapped students. *Chinese Journal of Special Education, 4*, 18-21.
- Peng, X. (2003). The study on teachers' attitude toward integration handicapped students. *Chinese Journal of Special Education, 2*, 10-15.

- Pintrich, P. R. (1990). Implication of psychological research on student learning and college teaching for teacher education. In W. R. Houston (Ed.), *Handbook of research on teacher education* (pp. 826-857). NY: Macmillan.
- Proctor, R., & Niemeyer, J. A. (2001). Preservice teacher beliefs about inclusion: Implications for early intervention educators. *Journal of Early Intervention, 24*(1), 55-66.
- Qian, Z. (1999). The report of current situations of special education in China. *Contemporary Special Education, 1*, 23-28.
- Rafferty, Y., Boettcher, C., & Griffin, K. W. (2001). Benefits and risks of reverse inclusion for preschoolers with and without disabilities: Parents' perspectives. *Journal of Early Intervention, 24*, 266-86.
- Rafferty, Y., & Griffin, K. W. (2005). Benefits and risks of reverse inclusion for preschoolers with and without disabilities: Perspectives of parents and providers. *Journal of Early Intervention, 27*(3), 173-192.
- Raudenbush, S., & Bryk, A. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd Ed.). Sage Publications, Inc.
- Sadler, J. (2005). Knowledge, attitudes and beliefs of the mainstream teachers of children with a preschool diagnosis of speech/language impairment. *Child Language Teaching and Therapy, 21*(2), 147-163.
- Seery, M. E., Davis, P. M., & Johnson, L. J. (2000). Seeing eye-to-eye: Are parents and professionals in agreement about the benefits of preschool inclusion? *Remedial and Special Education, 21*, 268-78.

- Smith, M. K., & Smith, K. E. (2000). "I believe in inclusion, but ..." : Regular education early childhood teachers' perceptions of successful inclusion. *Journal of Research in Childhood Education, 14*(2), 161-180.
- Soodak, L. C., & Podell, D. M. (1994). Teachers' thinking about difficult-to-teach students. *Journal of Educational Research, 88*, 44-51.
- Soodak, L. C., Podell, D. M., & Lehman, L. R. (1998). Teacher, student, and school attributes as predictors of teachers' responses to inclusion. *The Journal of Special Education, 31*(4), 480-497.
- Stanovich, P. J., & Jordan, A. (1998). Canadian teachers' and principals' beliefs about inclusive education as predictors of effective teaching in heterogeneous classrooms. *The Elementary School Journal, 98*(3), 221-238.
- Stoiber, K. C., Gettinger, M., & Goetz, D. (1998). Exploring factors influencing parents' and early childhood practitioners' beliefs about inclusion. *Early Childhood Research Quarterly, 13*, 107-124.
- The IDEA Amendments of 2004* (2004). Retrieved February 28, 2007, from www.nichcy.org/reauth/IDEA2004regulations.pdf
- Tudge, J., Lee, S., & Putnam, S. (1998). Young children's play in socio-cultural context: South Korea and the United States. In S. Reifel (Series Ed.) & M. C. Duncan, G. Chick, & A. Aycock (Vol. Eds.), *Play & Culture Studies: Vol. 1. Diversions and Divergences in Fields of Play* (pp. 77-90). Connecticut: Ablex Publishing Corporation.

- Tschannen-Moran, M & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805.
- Vygotsky, L. S. (1929). The problem of the cultural development of the child. *Journal of Genetic Psychology*, 36, 415-434. Reprinted in R. Van der Veer & J. Valsiner (Eds.), *The Vygotsky reader* (pp. 57-72). Oxford: Blackwell.
- Vygotsky, L. S. (1978). Interaction between learning and development. In M. Cole, V. John-Steiner, S. Scribner, & E. Souberman (Eds.), *Mind in society: The development of higher psychological processes* (pp. 79-91), London: Harvard. (Originally published in 1935.)
- Vygotsky, L. S. (1987). *The collected works of L. S. Vygotsky* (Vol. 2, René van der Veer, Trans.). New York: Plenum.
- Wang, M-H, Chan, F., Thomas, K.R., Lin, S-H, & Larson, P. (1997). Coping style and personal responsibility as factors in the perception of individuals with physical disabilities by Chinese international students. *Rehabilitation Psychology*. 42(4), 302-316.
- Wei, X., & Yuen, M. T. (2000). An investigation into teachers' attitudes to special needs in the primary school and special school. *Chinese Journal of Special Education*, 3, 31-33.
- Wesley, P. W., Buysse, V., & Tyndall, S. (1997). Family and professional perspectives on early intervention: An exploration using focus groups. *Topics in Early Childhood Special Education*, 17, 435-456.

- Wesley, P. W., Buysse, V., & Tyndall, S. (1997). Family and professional perspectives on early intervention: An exploration using focus groups. *Topics in Early Childhood Special Education, 17*, 435–456.
- Zhang, L. (2006). A Survey of preschool educators' ideas about inclusive education. *Early Childhood Education, 1*, 13-16.
- Zhang, N., & Chen, G. (2002). A review of integration : The attitudes of primary school teachers toward students with special need “learning in regular schools” . *Chinese Journal of Special Education, 2*, 1-6.
- 残疾人教育条例 *Education for Persons with Disabilities Bill* (1994). Retrieved February 7, 2007, from http://www.qdedu.gov.cn/jiaoyuguanli/fyfg/Law/18/law_18_1002.htm
- 残疾儿童少年义务教育“九五”实施方案 *Ninth Five-Year Plan* (1996-2000).). Retrieved February 7, 2007, from <http://spe-edu.net/Html/tejiaofagui/2771.htm>
- 关于“十五”期间进一步推进特殊教育改革和发展的意见 *Tenth Five-Year Plan* (2001-2005).). Retrieved February 7, 2007, from <http://spe-edu.net/Html/tejiaofagui/2798.htm>
- 中国残疾人事业十一五发展纲要 *Eleventh Five-Year Plan* (2006-2010).). Retrieved February 7, 2007, from <http://www.spe-edu.net/Html/canjifagui/20060612105519724.html>
- 中华人民共和国残疾人保障法 *Protection of the Disabled Persons' Law* (1990).). Retrieved February 7, 2007, from <http://www.spe-edu.net/Html/jiaoyufagui/2786.htm>

中华人民共和国义务教育法*Compulsory Education Law* (1986).). Retrieved February 7, 2007, from <http://www.edu.cn/20060303/3176577.shtml>

中华人民共和国义务教育法(2006 修订) *Revised Compulsory Education Law* (2006).).

Retrieved February 7, 2007, from: <http://www.spe-edu.net/Html/jiaoyufagui/20060830082258611.html>

Appendix A

My Thinking about Inclusion (MTAI)

People have different opinions about children with disabilities or handicaps being included into regular preschool classrooms. We would like your opinion on this topic.

For each of the statements below please think about a classroom that includes both children with and without disabilities or handicaps. Please read the following statements and rate the degree to which you agree with the sentences, using the scale provided.

1 **2** **3** **4** **5**

Strongly Reject

Neither accepts nor reject

Strongly Accept

1. Students with special needs have the right to be educated in the same classroom as typically developing students.

1 2 3 4 5

2. Inclusion is NOT a desirable practice for educating most typically developing students.

(R)

1 2 3 4 5

3. It is difficult to maintain order in a classroom that contains a mix of children with exceptional education needs and children with average abilities. (R)

1 2 3 4 5

4. Children with exceptional education needs should be given every opportunity to function in an integrated classroom.

1 2 3 4 5

5. Inclusion can be beneficial for parents of children with exceptional education needs.

1 2 3 4 5

6. Parents of children with exceptional needs prefer to have their child placed in an inclusive classroom setting.

1 2 3 4 5

7. Inclusion is socially advantageous for children with special needs.

1 2 3 4 5

8. Children with special needs will probably develop academic skills more rapidly in a special, separate classroom than in an integrated classroom. (R)

1 2 3 4 5

9. Children with exceptional needs are likely to be isolated by typically developing students in inclusive classrooms. (R)

1 2 3 4 5

10. The presence of children with exceptional education needs promotes acceptance of individual differences on the part of typically developing students.

1 2 3 4 5

11. Children with exceptional needs monopolize teachers' time. (R)

1 2 3 4 5

12. The behaviors of students with special needs require significantly more teacher-directed attention than those of typically developing children. (R)

1 2 3 4 5

R = Reverse scoring.

Appendix B

Impact of Inclusion on Children with Disabilities

Please circle the number that indicates your opinion about the impact of inclusion on children with disabilities. Please circle only one number for each item.

1	2	3	4	5
Strongly Disagree	Neither disagree nor agree			Strongly agree
1. Prepares them to function effectively in real world				
1	2	3	4	5
2. Helps them develop independence in self-help skills				
1	2	3	4	5
3. Enables them to learn by observing typically developing children				
1	2	3	4	5
4. Makes them want to try harder				
1	2	3	4	5
5. Helps them feel better about themselves				
1	2	3	4	5
6. Provides them more chances to participate in activities				
1	2	3	4	5
7. Promotes community acceptance of children with disabilities				
1	2	3	4	5
8. May negatively affect their emotional development				
1	2	3	4	5
9. They are less likely to receive special help from teacher				

1 2 3 4 5

10. They are less likely to receive special services (speech therapy, etc)

1 2 3 4 5

11. They are more likely to be rejected or left out by teachers

1 2 3 4 5

12. They are more likely to be rejected or left out by other children

1 2 3 4 5

13. Teachers may not be qualified or trained for their needs

1 2 3 4 5

Appendix C

Impact of Inclusion on Typically Developing Children

Please circle the number that indicates your opinion about the impact of inclusion on typically developing children. Please circle only one number for each item.

1	2	3	4	5
Strongly Disagree	Neither disagree nor agree			Strongly agree
1. Help them to accept differences in people				
1	2	3	4	5
2. They benefit in many ways				
1	2	3	4	5
3. Helps them develop sensitivity to others				
1	2	3	4	5
4. Helps them become aware of their strengths/weaknesses				
1	2	3	4	5
5. They may be injured by children with disabilities				
1	2	3	4	5
6. They may be frightened by unusual behaviors				
1	2	3	4	5
7. Children with disabilities may slow down their learning				
1	2	3	4	5
8. They may not receive enough attention from teacher				
1	2	3	4	5
9. They may not receive their fair share of materials and resources				

1 2 3 4 5

10. Children with disabilities may present too many behavior problems

1 2 3 4 5

11. It is difficult to maintain order in an inclusive classroom

1 2 3 4 5

12. They may learn negative behaviors

1 2 3 4 5

Appendix D

Teachers' Sense of Efficacy Scale

Please circle the number that indicates your opinion about each of the statements written below. Please circle only one number for each item.

1	2	3	4	5	6	7	8	9
Nothing		Very little		Some influence		Quite a bit		A great deal

1. How much can you do to control disruptive behavior in your classroom?

1 2 3 4 5 6 7 8 9

2. How much can you do to motivate children who show little interest in what is going on in the classroom?

1 2 3 4 5 6 7 8 9

3. How much can you do to get children to believe they can do well in class activities?

1 2 3 4 5 6 7 8 9

4. How much can you do to help your children value learning?

1 2 3 4 5 6 7 8 9

5. To what extent can you ask good questions that help your children think?

1 2 3 4 5 6 7 8 9

6. How much can you do to get children to follow classroom rules?

1 2 3 4 5 6 7 8 9

7. How much can you do to calm a child who is disruptive or noisy?

1 2 3 4 5 6 7 8 9

8. How well can you establish a behavior management system with your children?

1 2 3 4 5 6 7 8 9

9. How much can you use a variety of assessment strategies?

1 2 3 4 5 6 7 8 9

10. To what extent can you provide an alternative explanation or example when children are confused?

1 2 3 4 5 6 7 8 9

11. How much can you assist families in helping their children do well?

1 2 3 4 5 6 7 8 9

12. How well can you implement different strategies (for discipline or instruction) for individual children in your classroom?

1 2 3 4 5 6 7 8 9

Appendix E

Demographics Section --- Parents

Preschool _____ City _____

Part I Experience with Disability

1. Has your child been in a classroom with a child who has a disability or handicap?

_____yes _____no

If yes, please continue. If no, please go to # 4.

2. How many years has he/she been in the classroom with a child with disability or a handicap? ____years ____months

3. Has being in a classroom with children who have disabilities or handicaps changed your child? ____yes ____no

If yes, how has he or she changed?

4. Does your child know any children (outside of classroom) who have a disability or handicap? For example, children living in your neighborhood.

_____yes _____no If yes, please continue. If no, please go to # 5.

If your child knows more than one child with a disability, please think of the one child that you think your child knows the best. Please answer the following questions about the child:

CHILD WITH DISABILITY

- a. Please tell us about this child's disability or handicap (e.g. she/he cannot walk).
- b. How often do they play together or see each other? Choose one of the following:
- 1) every day
 - 2) 2-4 times a week
 - 3) 1 time a week
 - 4) 2 time a month
 - 5) once every 1-4 months
 - 6) once every 6 months
 - 7) once a year or less
- c. Where do they usually get together? Choose one of the following:
- 1) your home
 - 2) other child's home
 - 3) preschool/play group
 - 4) relative's house
 - 5) playground/park
 - 6) other: _____
- d. Do you think knowing this child has changed your child? ____yes ____no

If yes, how has he or she changed?

e. Does your child consider this child to be a friend? _____yes _____no

5. Does your child know any adults with a disability or handicap? _____yes _____no

If yes, please continue. If no, please go to # 6.

If your child knows more than one adult with a disability, please think of the one person that you think your child knows the best. Please answer the following questions about this person:

ADULT WITH A DISABILITY

a. Please tell us about this person's disability or handicap (e.g. she/he cannot walk).

b. What is this person's relationship to your child? Choose one of the following:

1) relative

2) neighbor

3) friend

4) other:_____

c. How often does your child see this person? Choose one of the following:

- 1) every day
- 2) 2-4 times a week
- 3) 1 time a week
- 4) 2 times a month
- 5) once every 1-4 months
- 6) once every 6 months
- 7) once a year or less

d. In your opinion, has knowing this person changed your child? _____yes _____no

If yes, how has he or she changed?

6. Do you have any child with a disability or handicap? _____yes _____no

Part II Background Information

1. Your child's birth date:
2. Your child's gender: _____male _____female
3. Your child's nationality: _____
4. Participant's relation with the child: _____mother _____father
5. Education (last grade in school) of mother of the child's present household
 - a) Do not have high school diploma
 - b) High school diploma
 - c) Two year college
 - d) BA degree

- e) Masters degree or higher
6. Education (last grade in school) of father of the child's present household
- a) Do not have high school diploma
 - b) High school diploma
 - c) Two year college
 - d) BA degree
 - e) Masters degree or higher
7. Mother's occupation
8. Father's occupation
9. How do you send your child to preschool
- a) by bike
 - b) by public bus
 - c) by other public transportation
 - d) by taxi
 - e) by your own car
 - f) others _____
10. Does your child have his/her own room? Yes___ No___
11. The average month income _____
- | | | | |
|--------------|---------------|----------------|--------------|
| a. <1000 | b. 1000-2000 | c. 2000-3000 | d. 3000-4000 |
| e. 4000-5000 | f. 5000-6000 | g. 6000-7000 | h. 7000-8000 |
| i. 8000-9000 | g. 9000-10000 | k. 10000-15000 | l. >15000 |

Appendix F

Demographics Section --- Teachers

Preschool _____ City _____

Part I Experience with Disability

1. Have you taught in a classroom with a child who has a disability or handicap?

_____yes _____no

If yes, please continue. If no, please go to # 4.

2. How many years have you taught in the classroom with a child with disability or a handicap? ____years ____months

3. Do you think having children with disabilities in your classroom changed the other children? ____yes ____no

If yes, how have the other children changed?

4. Do you know any children (outside of classroom) who have a disability or handicap?

For example, children living in your neighborhood.

_____yes _____no If yes, please continue. If no, please go to # 5.

If you know more than one child with a disability, please think of the one child that you think you know the best. Please answer the following questions about the child:

CHILD WITH DISABILITY

a. Please tell us about this child's disability or handicap (e.g. she/he cannot walk).

b. How often do you see each other? Choose one of the following:

- 1) every day
- 2) 2-4 times a week
- 3) 1 time a week
- 4) 2 time a month
- 5) once every 1-4 months
- 6) once every 6 months
- 7) once a year or less

c. Where do you usually see him/her? Choose one of the following:

- 1) your home
- 2) friend's home
- 3) preschool/play group
- 4) relative's house
- 5) playground/park
- 6) other: _____

d. Do you think this child has changed your opinion about children with disabilities?

____yes ____no

If yes, how has he or she changed?

5. Do you know any adults with a disability or handicap? ____yes ____no

If yes, please continue. If no, please go to Part II.

If you know more than one adult with a disability, please think of the one person that you think you know the best. Please answer the following questions about this person:

ADULT WITH A DISABILITY

a. Please tell us about this person's disability or handicap (e.g. she/he cannot walk).

b. What is this person's relationship to you? Choose one of the following:

1) Relative

2) Neighbor

3) Friend

4) other:_____

c. How often do you see this person? Choose one of the following:

1) every day

2) 2-4 times a week

- 3) 1 time a week
- 4) 2 times a month
- 5) once every 1-4 months
- 6) once every 6 months
- 7) once a year or less

d. In your opinion, has knowing this person changed you? _____yes _____no

If yes, how has he or she changed?

Part II Background Information

1. Your gender: _____male _____female
2. Education (last grade in school)
 - a) Two year college in early childhood education
 - b) Two year college in education
 - c) Two year college in other area _____
 - d) BA degree in early childhood education
 - e) BA degree in education
 - f) BA degree in other area _____
 - g) Masters degree or higher
3. Experience in early childhood education
 - a) Less than one year
 - b) 1-3 years
 - c) 4-6 years

- d) 6-10 years
 - e) more than 10 years
4. Total number of students in your classroom
 5. Total number of teachers in your classroom
 6. Age
 - a) Under 30
 - b) >30, but < 40
 - c) >40