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**TEACHERS' ATTITUDES TOWARD KINDERGARTEN
INCLUSION IN CHINA**

A Dissertation in

Curriculum and Instruction

by

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ABSTRACT

The primary purpose of this study was to ascertain kindergarten teachers' attitudes towards inclusion in China, and then examine teachers' perspectives on the degree of accommodation and level of preparation needed to work with those with different disabilities. Finally, this study explored the factors that affect kindergarten teachers' attitudes towards inclusion.

The study was conducted in Beijing, China. The target population for this study was the government kindergarten teachers in Beijing. Of the 250 participants, 240 completed and returned their survey for a return rate of 96%. There were 70 incomplete questionnaires. The final valid questionnaire rate was 68% in this study.

The data were analyzed using frequencies, percentages, means, standard deviations, and multiple regression analyses. The level of significance for testing each of the hypotheses was $p < .05$.

The conclusions were as follows:

First, most teachers held a moderately positive attitude toward inclusion of children with special needs in kindergarten.

Second, the study indicated that age, years of teaching, total children in class and participation in an inclusion workshop were the four variables significantly associated with teachers' attitudes towards inclusion of children with special needs in kindergarten.

Third, the results revealed no significant difference in teachers' accommodation degree (1=No or Very little Accommodation; 2 =Minor Accommodation; 3=Much

Accommodation; 4=Major Accommodation) for children with various disabilities when examined by teachers' variables (e.g., age, and education degree).

Fourth, the results revealed no significant difference in teachers' preparation level in teaching children with disabilities when examined by teachers' variables (e.g., age, and education degree).

Fifth, the study showed number of children in class and participation in an inclusion workshop were the two variables that significantly influenced teachers' perspectives of barriers in including children with special needs in class.

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Chapter 1

INTRODUCTION

The purpose of this study is to gain an understanding of teachers' attitudes toward inclusion of children with special needs in kindergartens, and analyze the critical factors that affect kindergarten teachers' attitudes related to inclusion. These critical factors were: age, education degree, major, years of teaching, total children in class, organization membership, prior experience in teaching children with special needs, and participation in an inclusion workshop. This chapter is divided into the following sections: (1) Background Statement, (2) Statement of the Problem, (3) Purpose of the Study, (4) Significance of the Study, (5) Generalization of the Study, (6) Research Questions, (7) Research Hypotheses, and (8) Definition of Terms.

Background Statement

Inclusion in educational settings has always been an important and “hot” topic. A number of studies (Fryxell & Kennedy, 1995; Slavin, 1990) on including children with special needs in regular school have been done. Research (e.g., Biklen, Corrigan, & Quick, 1989; Slavin, 1990) has shown that inclusion brings numerous benefits to children—both those with and without disabilities. For example, one major benefit is that children with disabilities learn age-appropriate social skills and improve their academic performance through interactions with peers without disabilities in natural settings (Slavin, 1990). However, children without disabilities gain increased knowledge about and greater acceptance of disabilities through inclusion (Diamond, Hestenes, Carpenter, & Innes, 1997). Then too, Biklen, Corrigan, and Quick (1989) interviewed elementary

school students in an inclusive setting and reported that inclusive classes helped these children to understand individual differences in physical appearance and behavior.

Compared with Western nations, inclusive education in China is a new and developing field. The inclusive movement, known as Learning in the Regular Class (LRC), first began in rural and remote areas that did not have or could not afford special schools or programs for students with disabilities (Chen, 1997). The original model of Chinese inclusive education may be traced back to the Gold-Key Education Project in 1987. This project was set up by non-government organizations, and was aimed at providing education particularly to children with visual impairments or blindness. In 1987, adapting Western special education concepts to the Chinese situation, this project successively established integrated education pilot areas in Shanxi, Jiangsu, Hebei and Heilongjiang. In the Gold-Key Education Project of 1987, 1,000 children with visual impairments were integrated with their typically developing peers in regular classes within one year (Xu, 1992).

Due to the success of Gold-Key Education Project, the State Education Commission and China Disabled People's Federation decided to name the practice "integrated education" and popularize it nationwide in 1990 (Xiao, 2005). This means that all visually impaired children of school age can attend a regular school. Thus, the Gold-Key Education Project turned a new page in Chinese special education. The State Education Commission established education pilot areas to integrate children with mental retardation into regular classes in 1989, and established education pilot areas to integrate children with hearing impairments in 1992 (Xiao, 2005).

The LRC movement has had far-reaching influence on the Chinese special education system. The former education system emphasized separate special schools as the only means of providing special education before LRC programs were extended in China. However, in the new special education system, special schools serve as the backbone, and special classes and the LRC as the body (Gu, 1993).

In sum, although inclusive education brought numerous benefits to children, it was a new concept in China. The Gold-Key Education Project, the original model of Chinese inclusive education, promoted the development of LRC programs for three types of disabilities—mental retardation, visual impairments, and hearing impairments—throughout China (Xu, 1992).

Statement of the Problem

According to Ruralnick (2001), people's attitudes toward children with disabilities and inclusion affect the development of children with disabilities and the effectiveness of inclusion. Teachers are most directly responsible for classes and children. Thus, the attitudes of teachers are crucial to inclusive education (Barker, 2000). Also, Brownell and Pajares (1999) reported that teachers' perceptions influence their behaviors, classroom management, and instructional strategies.

Despite the rapid progress of inclusive education, teachers in China hold various attitudes toward inclusion. These attitudes range from rejection to acceptance. However, there has been little research (e.g., Sun, 2007) on teachers' attitudes toward contemporary ideas of inclusion in China. Also, most of them focus on elementary school teachers' attitudes toward inclusion (Wei & Yuen, 2000; Zhang & Chen, 2002). To this

researcher's knowledge, there has only been one recent and contemporary study of kindergarten teachers' attitudes toward inclusion in China (Sun, 2007).

A major document on inclusive education was issued in 2004. It was entitled *Developing Experimental Unit of Including Young Children with Disabilities in Regular Classroom's Notice*. This document focused on an education plan for young children with special needs in urban areas to receive 2–3 years of appropriate education, while those in rural areas would receive 1–2 years of appropriate education. In order to realize the plan, Beijing officials demanded that every district and county select kindergartens that had high qualifications and enough teachers, and develop an early experimental inclusion unit in these kindergartens (Beijing Education Government, 2004). Before the early inclusive classroom was implemented on a large-scale basis in China, an examination of Chinese kindergarten teachers' attitudes was critical.

Need for the Study

Based on the statement of the problem, this study was conducted for two reasons: (1) data on teachers' attitudes toward inclusion in kindergarten are extremely limited, and (2) inclusive education is a new and developing field in China. Therefore, the results of this study may be used by the Chinese Ministry of Education to develop a better education program for students and professional training for teachers.

In sum, it is necessary to examine kindergarten teachers' attitudes toward inclusion and analyze the factors that affect their attitudes. The results of this study may be helpful for pre-service and in-service education programs.

Purpose of the Study

This study had three purposes. The first purpose was to ascertain kindergarten teachers' attitudes toward inclusion of children with special needs in regular classes in China. Second, the study examined teachers' perspectives on the degree of accommodation for various disabilities (i.e., no or very little accommodation, minor accommodation, much accommodation, and major accommodation), and then examined level of preparation needed to work with children with different disabilities (i.e., well prepared, somewhat prepared, not well prepared, not prepared at all). Third, this study attempted to explore the barriers that affect kindergarten teachers' attitudes related to inclusion (e.g., lack of knowledge in inclusion, and little experience in inclusion).

In sum, this study sought to gain an understanding of teachers' attitudes toward inclusion of special children in regular classrooms and the factors that influence their attitudes. In addition, this study examined teachers' perspectives on the degree of accommodation and preparation levels of children with different disabilities.

Significance of the Study

There were two reasons for this study. They were as follows. First, this study may help early childhood education administration and the government to better understand teachers' attitude and influencing factors. Second, this study may raise the level of awareness of the importance of inclusion in early education.

Generalizations of the Study

Two factors impact the generalizations of the study. They are as follows.

First, education is highly centralized by the government in China. Thus, it may be concluded that the study findings may be generalized to some kindergartens in China.

Second, data on teachers' attitudes toward inclusion in kindergarten is extremely limited. This study should be replicated with some additional teachers in different parts of country before generalizations are attempted.

Limitations of the Study

The study had three limitations. They were as follows.

First, the study was limited to investigating teachers' attitudes toward inclusion as determined by the *My Thinking about Inclusion* (MTAI) scale. The term inclusion mentioned in the MTAI is a concept commonly accepted in Western literature. However, inclusion in China is a new concept (Yang, 2005), where it is viewed differently than in Western nations. The differences are reported in chapter 2, p. 24. These differences may cause participants to misunderstand the notion of inclusion in kindergartens.

Second, the study was limited by potential research bias, such as use of a particular, and interpretations of study findings. For example, the investigators only used a survey to investigate teachers' attitudes toward inclusion in kindergarten classrooms. Thus, the investigator may not fully understand participants' attitudes toward inclusion without interviewing them.

Third, the questionnaire design did not use a neutral or I don't know response option for the Likert response scale. This may have led some of the teachers who lacked

knowledge about some items to skip those items if unable to so state this lack of background and information. The researcher notes this as a potential limitation in the questionnaire, especially since the survey return rate was 96%, but the completed questionnaire response rate was 68%.

Research Questions

The fundamental focus of this study was kindergarten teachers' attitudes toward inclusion. Thus, this study was designed to address the following research questions:

- RQ1. What are kindergarten teachers' attitudes toward inclusion of children with special needs in regular classrooms in China?
- RQ2. Are there significant relationships between teacher variables (i.e., age, education degree, major, years of teaching, total children in class, organization membership, prior experience in teaching children with special needs, and participation in an inclusion workshop) and teachers' attitudes toward inclusion?
- RQ3. Are there significant relationships between teacher variables and perspectives on accommodation degree (i.e., no or very little accommodation, minor accommodation, much accommodation, and major accommodation) for children with various disabilities?
- RQ4. Are there significant relationships between teacher variables and teachers' preparation level (i.e., well prepared, somewhat prepared, not well prepared, and not prepared at all)?
- RQ5. Are there significant relationships between teacher variables and perspectives on barriers (i.e., lack of knowledge in inclusion, little experience in inclusion, limited

time, lack the chance of consulting experts about inclusion, little support from school principal, little support and understanding from parents, and too many students in class)?

Research Hypotheses

There were five main hypotheses, as follows:

Ho (1): Generally, most kindergarten teachers have positive attitudes toward inclusion.

Ho (2): Kindergarten teachers' attitudes toward inclusion are influenced by the following variables:

- a. Age
- b. Educational degree
- c. Major
- d. Years of teaching children in early education programs
- e. Children number in class
- f. Prior experience of teaching children with special needs
- g. Participation of inclusion workshop

Ho (3): There are significant relationships between teacher variables and perspectives about accommodation degree (i.e., no or very little accommodation, minor accommodation, much accommodation, and major accommodation) for children with various disabilities.

Ho (4): There are significant relationships between teacher variables and teachers' preparation level (i.e., well prepared, somewhat prepared, not well prepared, and not prepared at all).

Ho (5): There are significant relationships between teacher variables and perspectives on barriers (i.e., lack of knowledge in inclusion, little experience in inclusion, limited time, lack the chance of consulting experts about inclusion, little support from school principal, little support and understanding from parents, too many students in class).

Definition of Terms

Four terms have been used in this study in particular ways. They are: (1) attitude, (2) child with a disability, (3) inclusion, and (4) kindergarten.

Attitude

In much of the literature (e.g., Allport, 1967; Richardson, 1996), the definition of attitude is widely used to refer to a mental state that predisposes people to their actions. For example, Richardson (1996) defined attitudes and beliefs as “a subset of a group of constructs that name, define, and describe the structure and content of mental states that drive a person's actions” (p. 102). Allport (1967) defined attitude as “a mental and neural state of readiness which is organized through experience that exerts influence upon the individual's response to all objects and situations with which it is related” (p. 8). Thus, determining teachers' attitudes toward inclusion may help the researchers to better understand relations among of attitudes and behaviors toward inclusion.

According to Ostrosky, Laumann, and Hsieh (2006), teachers' attitudes are formed by the following variables: "(a) type of preservice training and level of educational attainment, (b) quality and amount of in-service training for inclusion, (c) adequate time for planning and collaboration, (d) 'hands-on' experience with inclusion, (e) type and severity of a child's disability, and (f) perceived outcomes for children with or without disabilities" (p. 413). Avramidis and Norwich (2002) reported similar variables that influence teachers' attitudes toward inclusion.

Child with a Disability

According to the Individuals with Disabilities Education Act Amendment (IDEA, 1997), the term *child with a disability* has two levels:

1. In general—The term means a child: "with mental retardation, hearing impairments (including deafness), speech or language impairments, visual impairments (including blindness), serious emotional disturbance (hereinafter referred to as emotional disturbance), orthopedic impairments, autism, traumatic brain injury, other health impairments, or specific learning disabilities; and who, by reason thereof, needs special education and related services" (P. L. 101-476).
2. Child aged 3 through 9—The term means a child with "experiencing developmental delays in one or more of the following areas: physical development, cognitive development, communication development, social or emotional development, or adaptive development; and (b) who, by reason thereof, needs special education and related services" (PL 105-17).

The term *child with disabilities* is used throughout this study to refer to kindergarten children who need special education services because they have one or more disabilities.

Inclusion

In much of the literature (e.g., Avramidis & Norwich, 2002; Scruggs & Mastropieri, 1996), inclusion is often interchangeable with the terms *integration* and *mainstreaming*. They have been used at different times but are not synonymous. Historically, these terms begin with mainstreaming, then move to integration, and finally to inclusion (Cavallaro & Haney, 1999). The terms *integration* and *mainstreaming* refer to a child with disabilities joining the general education class for certain activities and spending the rest of the school day in special education settings (Martin, Martin & Terman, 1996). Both of these two terms reflect the expectation that children can be assimilated into a largely unchanged school environment (Thomas, 1997). The terms *integration* and *mainstreaming* suggest that children with disabilities cannot participate full-time in general education.

However, inclusion describes the process of integrating students with disabilities into general education with typically developing students as full-time members. Inclusion requires a restructuring of mainstream schooling so that every school can accommodate every child regardless of disability (Avramidis & Norwich, 2002). But, there is no commonly accepted definition of inclusion in the relevant literatures. This is because ‘inclusion means different things to different people’ (Odom, 2000, p. 21). For example, Allen and Schwartz (2001) saw inclusion as “belonging to a community- a group of

friends, a school community, or a neighborhood” (p. 2), whereas Nutbrown and Clough (2006) defined inclusion as “the drive toward maximal participation in and minimal exclusion from early years settings, from schools and from society” (p. 3).

Despite these different definitions, many professionals agree on the goal of inclusion. This goal as articulated by the Division for Early Childhood, Council for Exceptional Children (1993) follows:

Inclusion, as a value, supports the right of all children regardless of their diverse abilities, to participate actively in natural settings within their communities. A natural setting is one in which the child would spend time had he or she not had a disability. Such settings include but are not limited to home and family, play groups, child care, nursery schools, Head Start programs, kindergartens, and neighborhood school classrooms.
(www.naeyc.org)

Kindergarten

This study focused on government kindergartens in Beijing that serve children aged 3–6. In China, children usually start attending kindergarten at the age of 3 until they are at least 6 years old; early childhood program is often used to describe programs for children from birth to the commencement of statutory education. In the present study, early childhood program focused on education from ages 3–6. Therefore, the terms “kindergarten” and “early childhood program” were used interchangeably throughout the study.

Summary

This chapter was organized into eight categories: (1) Background Statement, (2) Statement of the Problem, (3) Purpose of the Study, (4) Significance of the Study, (5) Generalization of the Study, (6) Research Questions, (7) Research Hypotheses, and (8) Definition of Terms.

In the next chapter, relevant literature is reviewed. Controversy over inclusion and ample research on teachers' attitudes toward inclusion is reviewed.

Chapter 2

LITERATURE REVIEW

The purpose of this chapter is to provide a theoretical basis for the study via a review of the current literature on inclusion and teachers' attitudes toward inclusion. In this chapter, the literature review focuses on the following five sections: (1) History and Legal Foundation of Special Education in the United States, (2) History and Legal Foundation of Special Education in China, (3) Inclusion Movement in China, (4) the Debate about Inclusion, and (5) Teachers' Attitudes towards Inclusion in Early Education.

History and Legal Foundations of Special Education in the United States

Prior to the passage of Public Law 94-142, the Education for All Handicapped Children Act of 1975, schools in most states were allowed to exclude any "uneducable" children from educational opportunities, as defined by local administrators (Martin et al., 1996). For example, in 1893, the Massachusetts Supreme Court approved the exclusion of one child with mental retardation from public school (Yell, Rogers, & Rogers, 1998). For another example, in 1969, the State of North Carolina ruled it a crime for parents to persist in the attendance of children with disabilities after being expelled from public school (Weber, 1992).

However, in 1954, a landmark case, *Brown v. Board of Education* made "sweeping changes in the schools' policies and approaches to students with disabilities" (Yell, Rogers, & Rogers, 1998, p. 220). In *Brown v. Board of Education*, the Supreme Court maintained that "segregation solely on the basis of race violated equal protections

and denied minorities equal educational opportunity” (Yell, Rogers, & Rogers, 1998, p. 221). The decision by the Supreme Court not only broke down barriers for minority students, but also brought benefits to those with disabilities.

During the next twenty years, citing the decision in *Brown v. Board of Education*, parents of children with disabilities and advocacy groups argued that “students with disabilities had the same rights as students without disabilities” (Yell, Rogers, & Rogers, 1998, p. 221). Thus, parents and advocacy groups worked together to improve the conditions of state institutions, offer community support and initiate legislation, and most importantly provide equal educational opportunities for their children with special needs (Yell, Rogers, & Rogers, 1998).

A significant milestone in the special education movement was the passage of Public Law 94-142, the Education for All Handicapped Children Act of 1975, now known as the Individuals with Disabilities Education Act (IDEA). IDEA provided guidelines for and a guarantee of a free and appropriate public education in the Least Restrictive Environment (LRE) for students with disabilities (Yell & Katsiyannis, 2004). Thus, IDEA brought about the inclusion of students with disabilities in regular education. IDEA also ensures that separate schooling for children with disabilities only occurs when the disability is such that education in a regular education classroom cannot be beneficial (Etscheidt & Bartlett, 1999).

History and Legal Foundation of Special Education in China

This section focuses on the history and legal foundations of special education in China. It is divided into the following sections: (1) History of Special Education in China, and (2) Legal Foundation of Special Education in China.

History of Special Education in China

The history of education in China began with the birth of Chinese civilization. The nobles often set up an educational institution for their children. The Shang Hsiang (2257 BC–2208 BC), a legendary school for youth nobles, may have been the origin of education in China.(China Education, 2009) After that, numerous schools enrolled students throughout Chinese history. However, the most famous school was Confucianism. Confucianism emphasized education for scholars and for those who would be serving as civil servants for the empire, not for the masses. To a certain extent, this ideology may have obstructed China's development of an equal education system before 1949 (Deng, Poon-Mcbrayer & Farnswo, 2001).

However, students with special needs did not have an opportunity to obtain an education until the first school for the blind was established in 1874 (Chen, 1996). This school was established in Beijing by William Moore, a Scottish Presbyterian Pastor. Students were taught basic knowledge, living skills, and religion (Ellsorth & Zhang, 2007). Later, the first school for both blind and deaf students was built in Shandong in 1887. Students learned sign language; the education offered there led to the publication of the first textbook for deaf students (Ellsorth & Zhang, 2007). These schools, established via Western philanthropy, strongly influenced China's education systems and provided a

model for educating children with disabilities. “By the end of 1948, 42 special schools served the more than 2,000 students who were blind and deaf in China, and most of these schools were run by religious and charitable organizations” (Deng, Poon-Mcbrayer & Farnswo, 2001, p. 291).

In 1949, The People’s Republic of China was founded. From 1949 to 1976, Chairman Mao, the leader of the Communist Party in China, exerted significant influence on social beliefs about education and disabilities. Chairman Mao attempted to create an equitable society in which an exploitive class could not exist. The ideology of extreme egalitarianism prevailed in Chinese society, resulting in the neglect of individual differences (Deng, Poon-Mcbrayer & Farnswo, 2001). In education, disabilities were overlooked in the education system. It was expected that all children could perform in similar ways and at high levels, except for obvious sensory impairments (Cleverly, 1991). Thus, special education bumped along slowly under the leadership of Chairman Mao. Especially during the Cultural Revolution (1966–1976), special and other education institutions were shut down due to unfavorable political and social activities (Deng, Poon-Mcbrayer & Farnswo, 2001). For example, in political reform activities, even though no special support was offered, students with disabilities were encouraged to “participate in labor and social life as an equal member of society” (Ellsorth & Zhang, 2007, p. 60).

After the Cultural Revolution, which lasted for ten years, China began to execute a policy of Reform and Opening (*gai ge kai fang*) in 1978. This brought tremendous social, political, economic and idealistic reforms based on Western ideology. Since then, extreme egalitarianism has been “replaced by an atmosphere of allowing or even

encouraging differences” (Deng, Poon-Mcbrayer & Farnswo, 2001, p. 291). Along with an atmosphere that encouraged the acceptance of differences, the principles of Western special education systems had deep influences on China’s developing special education (Deng, Poon-Mcbrayer & Farnswo, 2001). For example, one of these influences was that special education was regarded as a part of compulsory education (Chen, 1996). This means that children with special needs have the same right as children without disabilities to accept nine years of compulsory education. In the meantime, the prestige of the disability rights leader—Pufang Deng, a son of Xiaoping Deng, who had been disabled since the Cultural Revolution—partly promoted the rights of persons with disabilities (McCabe, 2003).

Since the policy of Reform and Opening, special schools and services for children with special needs began to emerge in China. Special schools for children with mental retardation, visual impairments, and hearing impairments were opened in major cities. China has gradually established a modern system of special education to address the needs and education rights of children with disabilities (Chen, 1997).

Legal Foundation of Special Education in China

Besides Western influences, legislative enactment also promoted the development of Chinese special education. Article 45 of the Chinese Constitution was enacted in December 1982. This article provides the foundation for two major pieces of contemporary legislation: the Law of Compulsory Education of the People’s Republic of China and the Protection of the Disabled Persons’ Law (Piao, 1987). An explanation of each of these major pieces follows.

First, the *Law of Compulsory Education of the People's Republic of China* was enacted in 1986. It was the first law to include special education in compulsory education to protect the education rights of students with disabilities, which “eliminated the choice of whether or not special education was provided on a local basis” (Mu, Yang, & Armfield, 1993, p.3). Article 9 in the law encourages local government to provide self-contained special schools or classrooms for the blind, deaf, and mentally retarded in elementary and junior high schools. The law was revised in 2006. The revised law states that regular schools should include children with disabilities who have the ability to study in regular education. And, schools should provide children with disabilities with assistance in learning and rehabilitation.

Second, the Protection of the Disabled Persons' Law in 1990 ensured that disabled persons had citizens' rights in politics, economy, culture, employment and education. Chapter III, Article 18 addresses the issue of education for persons with disabilities:

The state shall guarantee the right of disabled persons to education. People's governments at various levels should make education of disabled persons a component of the state educational programme, include it in their overall planning and strengthen leadership in this respect.

The state, society, schools and families shall provide compulsory education for disabled children and juveniles.

The state shall exempt disabled students who accept compulsory education from tuition and reduce sundry fees or exempt them from

such fees according to actual situations. The state shall set up grant-in-aid to assist students who are poor and disabled. (The Protection of the Disabled Persons' Law, 1990, Section III, para.18)"

In addition, the Protection of the Disabled Persons' Law also specially addresses the issue of preschool education for disabled children. According to the law, regular preschool education should admit children with disabilities who are able to study in a typical classroom. Self-contained special preschool, special classes in regular preschool, welfare institutions and families of disabled children are responsible for the preschool education of disabled children who had no access to typical preschool education.

Third, the Regulations on the Education of Persons with Disabilities in 1994 restated that preschool education for children with disabilities should occur in the following institutions: self-contained special preschool, regular school, welfare institutions, institutions of rehabilitation and preschool classes in both typical primary school and special primary school. Also, this regulation stated that the education of the young with disabilities should combine child care with rehabilitation.

In sum, Chinese national laws entitle children with disabilities to have a right to an education. The legislation states that children with disabilities should get the same education with typically developing peers. The Law of Compulsory Education of the People's Republic of China of 1986 (revised in 2006) focuses more attention on the education of the students with visual impairments, hearing impairments, and mental retardation in elementary and junior high schools.

Inclusion Movement in China

The purpose of this section is to provide a general overview of the inclusion movement in China. The subsections include: (1) Children with Disabilities in China, and (2) Inclusion Movement in China: Learning in Regular Classrooms.

Children with Disabilities in China

In 1987, 4.9% of the Chinese population was regarded as having disabilities, according to the first China National Disability Sample Survey by the State Statistics Bureau. In 2006, China conducted a second survey. The results indicated that the number of persons with different disabilities in China was 82.96 million, representing at that time 6.34% of the total population (Deng, 2006).

According to another survey conducted by the Ministry of Health, State Statistics Bureau, China Disabled Persons' Association and United Nations Children's Fund in 2001, there were 1.395 million disabled children under age 6. This accounted for 1.362% of the total population of children. Of the total population of children with a disability, 54% had intellectual disabilities (China View, 2003).

Compared with 35 million Americans with disabilities (14% of the total population) (Peters, 1993), China has a much lower percentage with disabilities. Liu (1992) explained this discrepancy: (1) some disability categories are not recognized or acknowledged in China; and (2) there is a lack of diagnostic technology and experienced professionals in China. Also, Qian (1999) argued that the number of children with disabilities in China has been underestimated. Special education in China is a narrow concept that only refers to the education of children with physical and mental disabilities

(Qian, 1999). However, according to the Individuals with Disabilities Education Act Amendment (IDEA, 1997), children with special needs means children who have challenges, such as “mental retardation, hearing impairments (including deafness), speech or language impairments, visual impairments (including blindness), emotional disturbance, orthopedic impairments, autism, traumatic brain injury, other health impairments, or specific learning disabilities” (P. L. 101-476). Thus, in terms of this definition of Western nations, of 200 million children in China, probably 20 million are children with special needs (Qian, 1999).

Inclusion Movement in China: Learning in Regular Classrooms

The inclusion program in China is referred to as Learning in Regular Classrooms (LRC). It aims to offer education in neighborhood school classrooms to children with disabilities alongside peers without disabilities (Deng & Manset, 2000). LRC has become critical to Chinese inclusive programs.

Compared with Western nations, inclusive education in China is a new and developing field. The inclusive movement, known as Learning in the Regular Class (LRC), first began in rural and remote areas that did not have or could not afford special schools or programs for students with disabilities (Chen, 1997). The original model of Chinese inclusive education may be traced back to the Gold-Key Education Project in 1987. This project was set up by non-government organizations, and was aimed at providing education particularly to children with visual impairments or blindness. In 1987, adapting Western special education concepts to the Chinese situation, this project successively established integrated education pilot areas in Shanxi, Jiangsu, Hebei and

Heilongjiang. In the Gold-Key Education Project of 1987, 1,000 children with visual impairments were integrated with their typically developing peers in regular classes within one year (Xu, 1992).

Due to the success of Gold-Key Education Project, the State Education Commission and China Disabled People's Federation decided to name the practice "integrated education" and popularize it nationwide in 1990 (Xiao, 2005). This means that all visually impaired children of school age can attend a regular school. Thus, the Gold-Key Education Project turned a new page in Chinese special education. The State Education Commission established education pilot areas to integrate children with mental retardation into regular classes in 1989, and established education pilot areas to integrate children with hearing impairments in 1992 (Xiao, 2005).

The success of the project encouraged the development of LRC programs for three types of disabilities—mental retardation, visual impairments, and hearing impairments—throughout China (Xu, 1992).

The LRC movement has had far-reaching influence on the Chinese special education system. The far-reaching influences are seen in a number of ways. First, it gives children with disabilities the opportunity to attend class with typically developing peers. Second, it has changed the traditional education system. The former education system emphasized separate special schools as the only means of providing special education before LRC programs were extended in China. However, in the new special education system, special schools serve as the backbone, and special classes and the LRC as the body (Gu, 1993).

However, the researcher found it difficult to locate a satisfactory definition of LRC. The United States has experienced similar problems with defining inclusion (Odom, 2000; Schwartz, 2001). Deng, Poon-Mcbrayer and Farnswo (2001) summarized the differences between LRC and Western mainstreaming or inclusion as follows.

First, the emphases differ. LRC has been directly affected by the concept of mainstreaming in the United States, but focuses more on a remedial model than an educational needs model.

Second, the philosophies differ. The concepts of mainstreaming and inclusion in the United States have been based on the philosophy of equality and diversity in a liberal political system and multi-culture environment. Conversely, equality and decentralization are not widely accepted concepts in China.

Third, the goals differ. The primary goal of mainstreaming or inclusion in the United States is to give children the right to be equally educated, whereas the primary goal of LRC is to give children with special needs the opportunity to obtain an education.

Fourth, the organized structures differ. An individualized education program, less restrictive environment, and parental involvement are emphasized in mainstreaming, whereas these programs are not required in LRC. Also, LRC does not demand a free and appropriate education. This means that LRC programs are not mandated to restructure schooling to accommodate children with disabilities.

Apparently, this strategy does not reflect an allegiance to the concept of mainstreaming or inclusion of Western nations. In contrast, it more accurately reflects a shortage of personnel, limited fiscal resources, limited facilities, and geographical

considerations (Xu, Piao & Gargiulo, 1995). For example, LRC does not demand a free and appropriate education.

Despite these differences, many researchers agree that LRC belongs to the global inclusion movement and is an inclusion approach that China adapted from non-Chinese theories based on current social and economic situations. Some researchers (Chen, 1996; Potts, 2000) have already used *mainstreaming* or *inclusion* to describe LRC. These descriptions have appeared in the research literature and at international conferences, such as, *Making special education compulsory and **inclusive** in China* (Chen, 1996), *A Western perspective on **inclusion** in Chinese urban educational setting* (Potts, 2000), and *The beginnings of **inclusion** in the People's Republic of China* (McCabe, 2003).

The Debate about Inclusion

There is little documented debate about inclusion in China. Therefore, the following section focuses on the debate in Western nations. This debate is important to the topic of Chinese inclusion because China plans to develop more inclusive programs for young children. A major document on inclusive education was issued in 2004 in China. It was entitled *Developing Experimental Unit of Including Young Children with Disabilities in Regular Classroom's Notice*. This document focused on an education plan in which young children with special needs in urban areas received 2–3 years of appropriate education while those in rural areas received 1–2 years of appropriate education (Beijing Education Government, 2004). Before the inclusive classroom is implemented on a large-scale basis in China, advantages and disadvantages should be analyzed and considered.

In recent years, more researchers (Odom & Diamond, 1998; Salend & Duhaney, 1999) have regarded inclusion as a desirable service for children with disabilities. Yet, some researchers (Gresham, 1984; Shanker, 1995) maintain that inclusion is not always the best service for all children with disabilities. The following section addresses the views on inclusion from the perspectives of advantages and disadvantages. In this section, advantages and disadvantages are viewed from the United States perspective.

Advantages of Inclusion

There are many advantages to inclusion. The two main ones are academic and social advantages. Inclusion is considered to be the most efficient education strategy for children with disabilities in America by many educators (e.g., Buysse & Bailey, 1993; Jenkins, Odom, & Speltz, 1989). They argue that children with disabilities have the right to be educated in the same classroom with their peers without disabilities so that they obtain academic and social benefits (Odom & Diamond, 1998; Salend & Duhaney, 1999).

Academic Advantages

According to study findings, children with disabilities perform better academically in inclusive settings (e.g., Waldron & McLeskey, 1998). In 1998, Waldron and McLeskey compared disabled students in the regular education classroom with disabled students in a resource center. Their reading level suggested that students with disabilities who were educated with typically developing peers together exhibited greater improvement than those who were in the resource center. Hunt, Staub, Alwell, and Goetz (1994) investigated the academic achievement of students with multiple, severe

disabilities in the context of cooperative learning groups in inclusive classrooms. They reported that children with disabilities could acquire basic communication and motor skills through interactions with children without disabilities who provided cues, prompts, and consequences. At the end of the study, each child with severe disabilities was able to produce independent, targeted communication and motor responses.

Studies have also centered on academic benefits of inclusion for children without disabilities. Hollowood et al. (1994) investigated the use of teacher and student time in inclusive classrooms of an elementary school. Students with mild to profound disabilities were enrolled in these inclusive classrooms. Classrooms with and without students with severe disabilities were compared on all three variables—time allocated for instruction, actual time used for instruction, and students' engaged time. The results demonstrated that students with severe disabilities, even those with challenging behaviors, did not negatively impact the amount of engaged time for typical students. In the study by Sharpe York and Knight (1994), it was found that inclusion has no adverse impact on the academic performance of students without disabilities on standardized tests, when there are students with disabilities in the same class.

Social Advantages

Academic benefits are not the only benefits from inclusion for children with disabilities. By staying in the regular classroom, students with disabilities have more opportunity to socialize with typically developing children. Disabled students make more friends in the regular education setting and interact with their student peers at a much higher level (Fryxell & Kennedy, 1995). The impact of socialization in the inclusive

classroom has given children with disabilities the opportunity to imitate peer behavior in a positive way (Garfinkle & Schwartz, 2002).

The social benefits of inclusion are not limited to children with disabilities. Kamps et al. (1994) examined the effects of a peer-tutoring program on reading skills and social interactions within classrooms that included students with autism. Results revealed that peer tutoring increased reading fluency and comprehension was improved for students both with and without disabilities. The social interactions between students with autism and typical peers were increased as well. Meanwhile, in inclusive settings, children without disabilities can be fostered to understand individual differences and to build friendships with children with disabilities (Salend & Duhaney, 1999). Inclusive education can promote students' growth of self-concept, social cognition and development of ethical and moral principles (Staub & Peck, 1995).

In sum, inclusion has been a controversial topic. Proponents believe that children with disabilities can obtain academic and social benefits (Hunt, Staub, Alwell, & Goetz, 1994; Salend & Duhaney, 1999). The academic and social benefits aid children with and without disabilities (Kamps et al., 1994).

Disadvantages of Inclusion

Despite the numerous benefits of inclusion for children with disabilities, inclusion also has opponents. Disadvantages are evident in the same two areas: academic and social. Each is discussed in the following paragraphs.

Academic Disadvantages

According to research (e.g., Slavin, 1997) that does not favor inclusion, one concern is that the special needs and goals of disabled students may be lost in regular education classrooms where teachers lack appropriate materials and teach in oversized classes with inadequate support (e.g., special teacher staff and inadequate paraprofessional staff). Fuchs and Fuchs (1995) also questioned the benefit of placing students with learning disabilities into regular classrooms. Fuchs and Fuchs rightly pointed out that full-time placement of children with learning disabilities in total inclusion classrooms undoubtedly cannot necessarily result in an appropriate education. This means that if a student is fully included all day, they may lose the one-on-one time that they need to understand academic areas in which they are having difficulty.

Social Disadvantages

Opponents of inclusion favor special education classrooms. Shanker (1995, p. 18) stated that, “requiring all disabled children to be included in mainstream classrooms, regardless of their ability to function there, is not only unrealistic but also downright harmful-often for the children themselves”. For example, a child with multiple physical disabilities or behavioral disorders might not learn to socialize with other children just because he or she has been to put into a regular classroom without supports (Shanker, 1995).

Students with disabilities may be socially isolated despite their physical presence in regular education classrooms. Gresham (1984) reported that these students are frequently identified as the least popular or most rejected in their classrooms. The reasons

for rejection included: (1) teachers focus on academic attainment for children with disabilities, and failure to consider the social development of children with disability (Gresham, 1984), and (2) children with disabilities have social skill deficits (Forness & Kavale, 1996). Examples of social skills include greeting someone, receiving compliments, and giving positive feedback to someone.

In sum, opponents of inclusion argue that special needs and goals may be lost in the regular classroom (Slavin, 1997). Children with special needs might lose one-on-one time that they need to engage in academic areas in which they are lacking and be isolated by regular peers (Fuchs & Fuchs, 1995; Gresham, 1984)

Teachers' Attitudes toward Inclusion in Early Education

Teachers' Attitudes toward Inclusion in Early Education in the United States

Teachers are the primary service providers in inclusion classrooms. Therefore, their attitudes are critical if inclusion is to be successful. Garvar-Pinhas and Schmelkin in Scruggs and Mastropieri (1996) noted that, "in order for mainstreaming/inclusion to be effective, it is generally agreed that the school personnel who will be most directly responsible for its success-general educators-be receptive to the principles and demands of mainstreaming/inclusion" (1989, p.59). In order to investigate teachers' attitudes toward inclusion in early education programs, qualitative and quantitative studies have been conducted by many researchers (e.g., Gallagher, 1997; Marchant, 1995).

In order to examine readiness for inclusive preschool participation, Eiserman, Shisler, and Healey (1995) surveyed 220 teachers and administrator from private,

community-based preschools, Head Start classes, and Chapter 1 programs. The purpose was to determine their attitudes toward teaching children with disabilities. In this study, participants had very limited or no experiences teaching children with disabilities. Participants showed moderately positive attitudes toward the general concept of including children with disabilities. However, teachers believed that they were less willing to include children with more severe disabilities. Participants also stated that additional materials, equipment, training, consultation with a specialist, in-service training and in-class aid would be necessary to serve children with disabilities.

Gemmell-Crosby and Hanzlik (1994) surveyed 71 teachers in private-sector preschools to examine the attitudes of teachers toward teaching children with disabilities. In contrast with the Eiserman, Shisler, and Healey (1995) study, participants in this research had taught or were teaching children with disabilities. This study results reported that teachers' attitudes toward the inclusion concept are positively related to their perceptions of competence in teaching children with disabilities. In addition, similar to the findings from Eiserman, Shisler, and Healey (1995), level of support and training received regarding inclusion also had an impact on teachers' attitudes.

To understand teachers' beliefs regarding early childhood inclusion, Stoiber, Gettinger, and Goetz (1998) surveyed 128 early childhood practitioners serving children with disabilities. The results showed that regular and special education teachers expressed more positive beliefs than did paraprofessionals about early childhood inclusion. Additionally, practitioners with a high school degree were less supportive of inclusive classroom practices than were practitioners with master's degrees. Also, participants with 15 or more years of experience had more positive perceptions than those with 1 to 4 years.

Consistent with the research of Eiserman, Shisler, and Healey (1995), participants in the study preferred to serve children with mild disabilities.

In order to understand the benefits for both typically developing children and children with special needs, Buysse, Wesley, Keyes, and Bailey (1996) applied two methods to examine 52 general early childhood teachers serving in inclusive early childhood education settings. The first method consisted of a structured interview using an index of functional child characteristics to assess professional comfort in serving an individual child. The second contained a rating scale to assess general attitudes toward the benefits and drawbacks of inclusion. Findings of this study suggested that teachers viewed preparation for the real world, promotion of learning, and independence as benefits. However, similar to the research of Eiserman, Shisler, and Healey (1995) and Gemmell-Crosby and Hanzlik (1994), teachers were less willing to serve children who had severe to profound disabilities in leg functioning, muscle tone, and appropriate behavior.

Dinnebeil, McInerney, Fox, and Juchartz-Pendry (1998) surveyed 400 childcare personnel in community-based programs to assess teachers' beliefs about inclusion. Findings were consistent with those from previous studies (e.g., Eiserman, Shisler, & Healey, 1995, and Wesley, Buysse, & Tyndall, 1997). The participants overwhelmingly indicated positive attitudes about inclusion, with only 4% believing that children with disabilities should not be included in the same setting as typical children. Similar to the results of Buysse, Wesley, Keyes, and Bailey (1996), this study reported that perceptions of confidence are related to experiences in serving children with disabilities.

In order to examine the family childcare providers' experiences with and attitudes toward including children with disabilities, Buell, Gamel-McCormick and Hallam (1999) surveyed 189 family childcare providers. A total of 105 providers (55%) reported that they had cared for a child with a disability in the past. Providers who had experience caring for children with disabilities were more likely to agree with including children with disabilities. Providers who were not willing to care for children with disabilities expressed three concerns: a lack of knowledge about disabilities, additional burden of caring for a child with a disability at the same time as other children, and the necessity of purchasing special equipment.

Marchant (1995) conducted a qualitative investigation of preschool teachers' views of integration. The participants had been teaching in integrated preschool settings for at least two years. Teachers in this qualitative study were interviewed to gain their perspectives on their roles in the education setting, time allocation, challenges and joys of teaching, and views of a model integrated preschool. Results suggested that participants shared common beliefs and concerns about integrated preschools. They had positive attitudes about the benefit of an integrated model and strongly supported integration in early childhood education. However, they had reservations about the way programs were implemented, and were concerned about the lack of time and support.

Another qualitative study by Smith and Smith (2000) reported similar teacher concerns about inclusion. These concerns included class load (class size, the number of children with special needs in relation to the class size, and the type and severity of the disability), classroom support (special education personnel and paraprofessionals), time

(collaborative planning and implementation for regular and special education teacher), and training (in-service training for both regular and special educator).

In sum, researchers (e.g., Gemmell-Crosby & Hanzlik, 1994) reported that most teachers had positive attitudes toward inclusion. However, many teachers were less willing to include children with severe disabilities. Teachers who had more classroom supports, more training, and more experience with children with disabilities held more positive attitudes toward inclusion in early childhood education programs.

Teachers' Attitudes toward Inclusion in Early Education in Other Western Nations

In addition to research in the United States, a number of studies of teachers' attitudes toward inclusion in early education have been done in other Western nations. In the United Kingdom, Clough and Nutbrown (2004) studied teachers' perspectives of inclusion in the preschool years. Teachers' responses and emphases varied according to professional background and experience of systems and settings. A total of 94 preschool teachers reported positive attitudes toward inclusion.

To investigate Greek primary teachers' views of the severity of emotional and behavioral difficulties (EBD) and their perceptions of EBD prevalence, Poulou and Norwich (2000) surveyed 170 elementary teachers from 23 randomly selected schools in Athens, Greece. The results showed that the most problematic difficulties of Greek elementary teachers were "work avoidance", "depressive mood", "negativism", "offensive language", "disobedience", "physical aggression", and "lack of concentration". The results also indicated that "lack of concentration", "talking without permission",

“untidiness” and “fidgeting” were the most frequent behavior issues, arising from problematic difficulties.

Studies (McConkey and Bhlirgri, 2003) were done about the experiences and perceptions of preschool teachers about including children with autism in schools of the United Kingdom. For example, McConkey and Bhlirgri (2003) surveyed 56 teachers working in 38 pre-schools of various types in the Greater Belfast area. Nearly all teachers were committed to including children with autism in preschools. However, a majority of teachers felt inadequate or had no training to meet autistic children’s need, and lacked knowledge to serve these children.

In the United Kingdom, Mallshall, Ralph and Palmer (2002) studied teachers’ attitudes toward including children with speech and language difficulties in early education in the UK. Most teachers had positive attitudes about their expectations for such children. Teachers’ attitudes were not significantly related to teachers’ gender, teaching subject, prior knowledge or experience with children with speech and language difficulties.

In sum, similar to findings from other research (e.g., Buell, Gamel-McCormick & Hallam, 1999) in the United States, the findings from studies conducted/centering on other Western nations revealed that most teachers had positive attitudes toward inclusion. The concerns of teachers from other Western nations focused on inadequate training and a lack of knowledge and skill.

Teachers' Attitudes toward Inclusion in Early Education in China

In China, the majority of students with disabilities were educated in special schools until the mid-1980s. After that, a three-part model has gradually been applied that includes special schools, special classes, and Learning in the Regular Class (Chinese inclusive program), with the latter as the main strategy ((Deng, Poon-Mcbrayer & Farnswo, 2001). Thus, there are only a handful of studies about teachers' attitudes toward inclusion. Most existing research (Wei & Yuen, 2000; Wei, Yuan & Liu, 2001; Zhang & Chen, 2002) has focused on teachers' attitude toward inclusion in elementary school.

In the study by Wei and Yuen (2000), 188 teachers were sampled randomly from primary and special schools in Beijing. The findings revealed that general teachers had less positive attitudes toward serving children with disabilities than did special education teachers. The major concerns included poor learning abilities of students, lack of professional knowledge and skills, lack of time, teaching facilities, students' behavior problems, and the support of the school. The study showed that the teachers' attitudes were not related to the length of teaching time, their gender, or whether they had studied curricula related to special education.

Using open-ended questionnaires and a tape-recorded interview, Zhang and Chen (2002) examined 23 primary school teachers' attitudes about inclusion. The majority held positive attitudes toward inclusion. However, more than half of the teachers believed that the decision to include children in the regular classroom should be made according to the type and severity of the student's disability. Most participants believed that most social interaction occurred during activities organized after school hours, group activities and

games, rather than during learning activities in the classroom. Also, they hoped to acquire training and knowledge in special education.

In order to understand their attitudes toward inclusion, Sun (2007) investigated 174 general preschool educators, including teachers and nursery governesses, using a questionnaire. Two-thirds had no experience serving children with disabilities, and one-third served children with mild-disabilities. The findings suggested that almost half of the preschool educators would accept inclusion in their own class, with 39% holding neutral attitudes and 14%, negative attitudes. However, the preschool educators were more likely to accept inclusion in early education if there were enough qualified teachers and facilities, and educational approaches could be guaranteed. Educators' major concerns included lack of knowledge about special education, qualification of teachers, education facilities for children with special needs, perceptions of parents, and budget and funding.

To this researcher's knowledge, there has been only limited research on teachers' attitudes toward inclusion in early childhood education in China (Sun, 2007). However, in nearby Taiwan, Taiwanese researchers, although not from mainland China, have provided expanded views of teachers' attitudes toward inclusion in early childhood programs.

In the east region of Taiwan, through the use of questionnaires and interviews, Wu (2004) studied 212 kindergarten teachers' attitudes toward young children with disabilities. These teachers were randomly selected from the eastern sector of Taiwan. Results revealed that teachers' attitudes toward children with disabilities are positively related to age, education degree, training and teaching experiences with young children

with disabilities. The teachers felt frustrated when teaching children with serious behavioral or emotional problems.

In order to explore the attitudes of kindergarten teachers toward inclusive education, Chen (2004) used a survey to examine 250 kindergarten teachers. The findings showed that teachers were generally positive about the inclusion of young children with disabilities in regular kindergartens. Similar to the findings of Wu (2004), in this study, teachers' attitudes are significantly related to age, education degrees, special education backgrounds and in-service training.

Yu (2006) surveyed 415 preschool educators in public and private kindergartens as well as in day care centers in Taichung County, Taiwan. The purpose of the study was to understand preschool teachers' attitudes and factors that influence teachers' attitudes toward inclusive education. Preschool educators who were younger with a higher education, less teaching experience, a special education background, and outgoing personality were more likely to hold positive attitudes toward kindergarten inclusion.

In sum, there has been only limited research on teachers' attitudes toward inclusion in early childhood education in China (Sun, 2007). Findings from Sun (2007) suggested that almost half of preschool educators would accept inclusion in their own class. However, research (Chen, 2004; Yu, 2006) in Taiwan has shown that Taiwanese teachers have more positive attitudes.

Summary

A review of the historical development and legal foundations of special education in the United States revealed the evolution of special education policies in the United States in general. This evolution has been guided by legislation. The literature reviewed specifically addressed historical developments and legal foundations of special education in China.

Inclusion has been a controversial topic. On the one hand, advocates of students with disabilities have the right to be educated in the regular classroom with their typically developed peers. They believe inclusion can bring social and academic benefits to children with and without disabilities. On the other hand, opponents argue that inclusion negatively impacts children with disabilities. They feel the goal of special education will be lost in regular classrooms and students with disabilities will be socially isolated.

Ample research has been conducted on teachers' attitudes toward inclusion in early childhood education in the United States and other Western countries. Most teachers have expressed positive attitudes toward inclusion, and many teachers have been less willing to include children with severe disabilities. While counterpart research from mainland China is very limited, Taiwanese research provides expanded views of teachers' attitudes toward inclusion in early childhood programs. The current research is a step toward investigating teachers' attitudes about early inclusion and adds to the body of research on inclusion in China.

Chapter 3

METHODOLOGY

The study investigates in-service teachers' attitudes towards inclusion in kindergarten classrooms. It then examines teachers' perspectives on the degree of accommodation for various disabilities (i.e., no or very little accommodation, minor accommodation, much accommodation, and major accommodation), and then examines level of preparation needed to work with children with different disabilities (i.e., well prepared, somewhat prepared, not well prepared, not prepared at all). Finally, it explores the factors that affect kindergarten teachers' beliefs related to inclusion. To provide a complete description of the methodology for this study, this chapter is divided into five sections: (1) Design of the Study, (2) Study Participants, (3) Instrumentation, (4) Data Collection, and (5) Data Analysis Plan.

Design of the Study

Gay, Mills and Airasian (2006) further identified six different types of research—historical research, qualitative research, descriptive research, correlational research, causal-comparative research, and experimental research. This research study uses two types of research. They are: (1) descriptive, and (2) correlational researches. Descriptive research typically involves collecting information in order to test hypotheses or answer research questions regarding the study participants. In descriptive research, the investigator reports the numerical results for one or more variables on the subjects of the study. Correlational research attempts to determine whether and the extent to which a

relationship exists between two or more quantifiable variables. Examples of correlational research include study use forms of multiple regressions. Although not used in this study they remain four types of research. They are historical, qualitative research, causal-comparative research, and experimental research (Gay, Mills and Airasian, 2006).

This research study investigated Chinese kindergarten teachers' attitudes toward inclusion in kindergarten. The data were gathered using a questionnaire. The *My Thinking About Inclusion* (MTAI) scale (Stolber, Gettinger & Goetz, 1998) served as the primary instrument in this study. Permission was granted for sue and adaptation. According to Creswell (1994), survey research provides a basis to “generalize from a sample to a population so that inferences can be made about some characteristics, attitude or behavior to this population” (p. 118). During survey research, the participants are anonymous. Theoretically, they are more willing to answer questions honestly (Creswell, 2003). Therefore, the investigator has selected a survey research approach for this study.

Study Participants

The study participants for this research were general kindergarten classroom teachers in China. Geographically, the participants all came from Beijing, China. The early childhood programs in this study were defined as government kindergartens in China that serve children of 3–6 years of age.

According to information on the Ministry of Education website in Beijing (2006), there are 15, 632 kindergarten teachers in Beijing. Thus, based on Krejcie and Morgan (1970), the sample should include 375 participants from among general kindergarten teachers in Beijing to achieve a 95% level of confidence. However, in considering major

practical factors (i.e., time, location and financial resources), the investigator only chose 7 kindergartens. Thus, the sample size for this study was adjusted to 250.

Sixteen districts in Beijing are divided into three areas — central old city area, new districts and suburban districts based on administrative divisions. A total of 250 teachers who taught in 16 district government kindergartens in three areas were solicited to participate in the present research. The procedures used in the sample selections are shown below in Figure 3.1

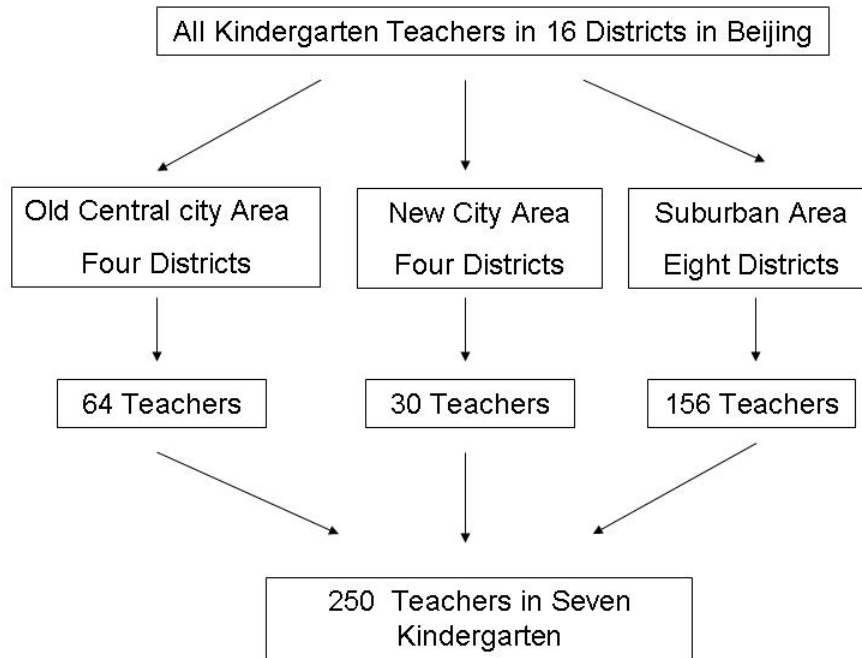


Figure 3.1 Sample Selection Procedures

In Figure 3.1 above, the rationale for choosing the number of teachers per districts follow. First, Data of 156 teachers were collected in the suburban area because the primary data collector lived there. The other two areas (old central city area and new city area) were far distant to travel for daily data collecting.

Instrumentation

My Thinking about Inclusion

The *My Thinking about Inclusion* (MTAI) (Stolber, Gettinger & Goetz, 1998) served as the primary instrument in this study. Permission was granted for use and adaptation. In addition, a series of personal background questions was developed specifically for this study. The reason for the questions was because this research study was to examine how teachers' factors influence teachers' attitudes towards inclusion in kindergarten.

The MTAI is an instrument for which there are two versions: a brief version and a comprehensive version. Here, the investigator used the comprehensive version of MTAI to measure the attitudes of early education teachers because the brief version was developed for parents, and the comprehensive version was constructed for early childhood educators.

A copy of the MTAI instrument is presented in Appendix A. The MTAI scale consists of 28 items that reflect the following three belief domains related to inclusion. They were (1) Core Perspectives, (2) Expected Outcomes and (3) Classroom Practices.

The Core Perspectives consist 12 items. One example of Core Perspectives is "Students with special needs have the right to be educated in the same classroom as typically developing students" (item 1 from MTAI).

The Expected Outcomes consist 11 items. One example of expected outcomes is "Inclusion is socially advantageous for children with special needs" (item 13 from MTAI).

The Classroom Practices consist 5 items. One example of classroom practices is “Children with exceptional needs monopolize teachers’ time” (item 24 from MTAI).

To complete the survey, participants indicated their degree of agreement with each statement. Originally, MTAI was a 5-point Likert-type scale (“1”=strongly accept; 3=undecided/neutral; and 5=strongly reject). But, according to Chinese culture, most Chinese people might choose “undecided/neutral” in order to avoid extremeness. Thus, “undecided/neutral” was removed from the response scale to match perceived culture. The measurement in turn used a 4-point Likert type response scale (1=strongly agree; 4=strongly disagree).

A pragmatics section was also included in the MTAI. Originally, 12 disability types were listed in the MTAI. They were speech and language delay, learning disability, mild cognitive disability, moderate cognitive disability, ADHD, visual impairment, hearing impairment, physical/motor impairment, emotional disturbance, challenging behavior, brain injury/neurological, autism/PDD. However, compared with the United States, some disability categories are not recognized or acknowledged in China (Liu, 1992). Thus, the investigator presented eight disability types. These disabilities types: speech and language delay, learning disability, visual impairment, hearing impairment, physical impairment, emotional disturbance, autism and mental retardation, are defined on page 120. The disability types not recognized or acknowledged in china are mild cognitive disability, moderate cognitive disability, ADHD, challenging behavior.

Thus, teachers were presented with a list of these eight disability types. They were asked to indicate the degree to which they believe they can accommodate within the kindergarten setting students with that type of disability. Teachers were asked to indicate

their degree of accommodation using a 4-point response scale (1=no or very little accommodation; 2 =minor accommodation; 3=much accommodation; 4=major accommodation) (Stolber, Gettinger & Goetz, 1998). The same eight disability profiles were presented again and teachers were asked to indicate “the level of preparedness that you feel you have in teaching children in a full inclusive classroom setting” (1=well prepared; 2=somewhat prepared; 3=not well prepared; and 4=not prepared at all). Also, teachers were asked to indicate their agreement with belief about seven barriers (e.g., lack of knowledge in inclusion; and little experience in inclusion) from “strongly agree” to “strongly disagree”.

In Appendix A (pages 116-117), examples of accommodation degree and preparedness with disability types were listed. In addition, the definitions of disability types were defined on page 120.

Demographic Items

In addition, the demographic and educational variables were developed specifically for this study. These variables provided relevant, descriptive information about teachers. The items were related to their age, educational degree, years of teaching, total children in class, organization membership, prior experience working with children with disabilities, and participation of inclusion workshop.

Translation

The original questionnaire was in English. However, the participants in this study were kindergarten teachers in China, so translation of the questionnaire was necessary. The procedure for determining the final Chinese version had four phases as follows:

Phase 1: From English into Chinese. MTAI was translated by the investigator from English to Chinese. It took 5 hours to translate the instrument to Chinese.

Phase 2: From Chinese back into English. A Chinese professional is proficient in both English and Chinese. She translated the Chinese version back into English. The professional took 8 hours to translate the instrument back into English.

Phase 3: Comparison of the two English versions. After the Chinese professional completed the translation from Chinese to English, the original English version and the new English version were compared by a native speaker from the United States.

Phase 4: Adjust the survey. The discrepancies between original English version of MTAI and new English version by Chinese professional were uncovered by the native English speaker. Then, the survey was adjusted after a discussion. Finally, the final Chinese version of the instrument was completed. The adjustments and comparisons between English language versions appear in Table 3.1

Table 3.1 *Comparisons between the Two English Versions*

Translation 1	Translation 2	Adjustment
Original English version of MTAI	Chinese to English version by Chinese professional	
Question (4): Children with exceptional education needs should be given every opportunity to function in an integrated classroom.	Question (4): Special children should be given opportunities to play in an integrated class.	Question (4): Children with special needs should be given every opportunity to participate in academic and social activities in an integrated classroom
Question (6): Parents of children with exceptional needs prefer to have their child placed in an inclusive classroom setting.	Question (6): Parents of special children hope their children will be put in the class setting of inclusive education.	Question (6): Parents of special children prefer to have their child placed in an inclusive classroom setting.
Question (10): The best way to begin educating children in inclusive setting is just to do it.	Question (10): The best way to begin educating children in inclusive setting is to directly educate them.	Question (10): The best way to begin educating children in inclusive setting is to directly educate them.

Data Collection

Data collection occurred in two parts: the pilot study and the main study. There were several phases in each of these data collection activities.

Pilot Testing the Translated Instrument

After the Institutional Review Board (IRB) gave its approval, a pilot study was conducted in one kindergarten of Beijing, China prior to conducting the actual study. The purpose of the pilot study was to examine the participants' understanding of the survey items and to identify any difficulty they might have in following the instructions for completing the survey. This pilot test involved two phases: (1) selecting kindergarten teacher participants and distributing materials, and (2) modifying the survey format and language based on feedback to the pilot test.

For the pilot study, the researcher identified 16 members from the targeted sample and asked them to complete the questionnaire. These 16 teachers were volunteers for the pilot group. After collecting data from the participants, the investigator reviewed and analyzed their responses to the pilot study. Then the experiments revised the questionnaires based on their responses. Table 3.2 shows how items were modified after responses were received.

Table 3.2 *Revision of the Questionnaire*

Original Questions	Revised Questions
<p>Part II (2) Original Questions Response</p> <p>There are eight types of disabilities below. Please indicate the level of preparedness that you feel you have in teaching children with these disabilities in a full inclusive classroom setting.</p> <p>1=Strongly Agree 2=Agree 3=Disagree 4=Strongly Disagree</p>	<p>Part II (2) Revised Questions Response</p> <p>There are eight types of disabilities below. Please indicate the level of preparedness that you feel you have in teaching children with these disabilities in a full inclusive classroom setting.</p> <p>1=Well prepared 2=Somewhat prepared 3=Not well prepared 4=Not prepared at all</p>
<p>Part IV Question about yourself</p> <p>(3) Highest degree is</p> <p><input type="checkbox"/>Associate Degree <input type="checkbox"/>Bachelor Degree <input type="checkbox"/>Master <input type="checkbox"/>Doctoral Degree</p> <p>(5) How many years have you taught in early childhood education?</p> <p><input type="checkbox"/>Less than five years <input type="checkbox"/>5-10years <input type="checkbox"/>11-15years <input type="checkbox"/>more than 20 years</p> <p>(6) How many children do you take care of everyday?</p>	<p>Part IV Question about yourself</p> <p>(3) Highest degree is</p> <p><input type="checkbox"/> Middle School <input type="checkbox"/> High School <input type="checkbox"/> Technical Secondary School <input type="checkbox"/>Associate Degree <input type="checkbox"/>Bachelor Degree <input type="checkbox"/>Master and Beyond</p> <p>(5) How many total years have you taught in early childhood education?</p> <p><input type="checkbox"/>0-1year <input type="checkbox"/>2-3years <input type="checkbox"/>4-5years <input type="checkbox"/>6-9years <input type="checkbox"/>10-15years <input type="checkbox"/>more than 15years</p> <p>(6) How many total children do you take care of everyday?</p>

Main Study Data Collection Procedures

The data were collected from September 2008 to November 2008. Principals of seven government kindergartens in Beijing, China were contacted. The investigator first wrote emails to all target kindergarten principals. Then the principals were telephoned. The purpose of the study was described and permission obtained from each principal for

conducting the research. After obtaining permission from each principal, Haiyan Gu, the data gatheror, received Master's Degree in Comparative Literature from Princeton University. She currently works as a chief editor of a publishing company in China. She aided the investigator in distributing letters of introduction, copies of the questionnaire and agreement letters to the principals prior to the survey. The training protocol was described and explained in Appendix C. The total time of training for the data gatheror was four hours.

After getting each principal's signature, Ms. Haiyan Gu distributed survey packets to each kindergarten at a group meeting. The packet included: (1) information on the purpose of this research, study procedures and approximate finish time, (2) an informed consent form that gave participants an understanding of their rights and privacy, (3) a copy of the questionnaire, and (4) a return envelope.

Before starting the survey, the participants were asked to sign the consent form first. Then, after completing the survey, the participants returned the questionnaire in a sealed envelope to Ms. Haiyan Gu immediately after a group meeting.

Treatment of Data

The study attempted to describe kindergarten teachers' attitudes toward inclusion in early childhood education. Then, the study was to analyze the potential factors that may have some correlation/influence on their attitudes, perspectives of accommodation degree, and level of preparation.

All data were coded and analyzed using the Statistical Package for the Social Science (SPSS) 15.0 version for Windows (SPSS, 2006). Descriptive statistics and

multiple regression analysis were used in this study. A summary of the data analysis is presented in Table 3.2.

Descriptive statistics (e.g., frequencies, percentages, means, and standard deviations) were computed to ascertain teachers' attitudes toward inclusion. The three subscales' summated values (i.e., Core Perspectives, Expected Outcomes, and Classroom Practices) were used to reflect the teachers' attitudes toward inclusion.

Multiple regression analysis was used to determine the intercorrelations among the participants' characteristics and the following variables: teachers' attitudes toward inclusion, perspectives about degree of accommodation for children with special needs, preparation level, and perspective on barriers to inclusion. In this study, teachers' characteristics (i.e., age, education degree, major, years of teaching children, children number in class, organization membership, prior experience in teaching children with special needs, and participation in an inclusion workshop) were treated as independent variables. Teachers' attitudes towards inclusion, perspectives about degrees of accommodation for children with special needs, preparation levels and perspectives on barriers to inclusion were treated as dependent variables. A summary of the data analysis is presented in Table 3.3

Table 3.3 *Summary of the Data Analysis*

Research Question	Data Analysis Methods
1. What are kindergarten teachers' attitudes towards the inclusion of children with diverse special needs in regular classrooms in China?	Description: -frequency -percentage -mean -standard deviation
2. Are there significant relationships between teacher variables (i.e., age, education degree, major, years of teaching, total children in class, organization membership, prior experience of teaching children with special needs, participation of inclusion workshop) and teachers' attitudes towards inclusion?	Multiple Regression
3. Are there significant relationships between teacher variables (i.e., age, education degree, major, years of teaching, total children in class, organization membership, prior experience of teaching children with special needs, participation of inclusion workshop) and perspectives about accommodation degree for children with various disabilities?	Multiple Regression
4. Are there significant relationships between teacher variables (i.e., age, education degree, major, years of teaching, total children in class, organization membership, prior experience of teaching children with special needs, participation of inclusion workshop) and teachers' preparation level?	Multiple Regression
5. Are there significant relationships between teacher variables and perspectives of barriers (i.e., lack of knowledge in inclusion, little experience in inclusion, limited time, lack the chance of consulting experts about inclusion, little support from school principal, little support and understanding from parents, too many students in class)?	Multiple Regression

Chapter 4

RESULTS

Introduction

This study was designed to investigate Chinese early childhood educators' attitudes toward inclusion in Chinese kindergartens. Five research questions were addressed in this study. The follow:

1. What are kindergarten teachers' attitudes towards inclusion of children with special needs in regular classrooms in China?
2. Are there significant relationships between teacher variables (i.e., age, education background, qualification and prior experience) and teachers' attitudes towards inclusion?
3. Are there significant relationships between teacher variables (i.e., age, education background, qualification and prior experience) and perspectives about accommodation degree for children with various disabilities?
4. Are there significant relationships between teacher variables (i.e., age, education background, qualification and prior experience) and teachers' preparation level?
5. Are there significant relationships between teacher variables (i.e., age, education degree, major, and years of teaching children with special needs) and perspectives on barriers (i.e., lack of knowledge in inclusion, little experience in inclusion, limited time, lack the chance of consulting experts

about inclusion, little support from school principal, little support and understanding from parents, too many students in class)?

The survey used in this study had four sections. They follow: (1) My Thinking about Inclusion Scale; (2) Degree of Accommodation and Level of Preparation According to Disability Type; (3) Barriers to Inclusion in Early Education; and (4) Demographic Characteristics of Participants.

Study results are presented six sections. They follow: (1) Demographic Information of Participants, (2) Teachers' Attitudes toward Kindergarten Inclusion, (3) Analyses of Relationships between Teacher Variables and Attitudes about Inclusion, (4) Analyses of Relationships between Teacher Variables and Perspectives about Degrees of Accommodation of Special Children, (5) Analyses of Relationships between Teacher Variables and Preparation Level, and (6) Analyses of Relationships between Teacher Variables and Perspectives on Barriers.

Demographic Information of Participants

The data were collected from kindergarten teachers currently enrolled in Beijing government kindergarten programs. A total of 250 teachers from eight government kindergartens in Beijing were recruited for this study. Of the 250 participants, 240 completed and returned their survey (96%). There were 70 incomplete questionnaires. The final valid questionnaire return rate was 68% in this study.

The teachers' background information was examined in this study, including: (1) age, (2) education degree, (3) major, (4) total years of teaching experience with children, (5) number of children in class, (6) organization membership, (7) prior experience in

teaching children with special needs, and (8) inclusion workshop participation.

Frequencies and percentages were used to develop a profile of the participants.

Demographic characteristics of participants are shown in Table 4.1.

Table 4.1 *Demographic Characteristics of Participants (n=240)*

Demographic Characteristics	Frequency	Percentage
Age (Years)		
20 or below	35	14.7
21-29	129	53.9
30-39	50	20.9
40-49	23	9.4
50-59	1	0.4
60 or above	1	0.4
Missing	1	0.4
Teaching Years		
0-1 years	47	19.6
2-3 years	65	27.1
4-5 years	39	16.3
6-9 years	31	12.9
10-15 years	31	12.9
More than 15 years	24	10.0
Missing	3	1.3
Highest Degree		
Junior High School	4	1.7
Senior High School	5	2.1
Technical Secondary School	42	17.5
Associate Degree	133	55.4
Bachelor Degree	52	21.7
Master and beyond	3	1.3
Missing	1	0.4
Major		
Early Childhood Education	191	79.6
Special Education	6	2.5
Other	39	16.3
Missing	4	1.7

Total Children Every Day in Class

10 or fewer	20	8.3
11-19	24	10.0
20-29	96	40.0
30 or above	79	32.9
Missing	21	8.8

Education Organization Membership

With membership	155	64.5
Without membership	34	14.2
Missing	51	21.3

Experience of Teaching Special Children

Yes	106	44.2
No	132	55.0
Missing	2	0.8

Inclusion Workshop

Yes	24	10.0
No	199	82.9
Missing	17	7.1

In this study, over one-half of the teachers (53.9%) were aged 21–29 years; 14.7% were 20 years or younger; 20.9% were 20–39 years old; 9.4% were 40–49 years old; 0.4% were 50–59; and 0.4% were 60 or older. With regard to years of teaching experience, 27.1% had taught for 2–3 years; 19.6%, 0–1 years; 16.3%, 4–5 years; 12.9%, 6–9 years; 12.9%, 10–15 years; and 10%, more than 15 years. With regard to highest education degree, most teachers fell into three categories: associate degree (55.4%); bachelor degree (21.7%); and technical secondary school (17.5%).

With regard to their education major, 79.6% of the teachers had majored in early childhood education, followed by other major (16.3%) and special education (2.5%). Looking at total number of children in class each day, most teachers' student numbers fell into the range of 20–29 (40%); followed by 30 or more (32.9%); 11–19 (10%); and

10 or fewer (8.3%). With regard to education organizations, 64.5% of teachers held membership in an educational organization and 14.2% teachers did not hold membership. With regard to experience teaching special children, over one-half of the teachers (55%) had no experience in teaching special children, and 44.2% teachers had experience in teaching special children. For participation in the inclusion workshop, most teachers (82.9%) had never participated in an inclusion workshop and only 10% had participated in an inclusion workshop before.

Teachers' Attitudes toward Kindergarten Inclusion

This part summarizes information for the first research question, “What are kindergarten teachers’ attitudes towards the inclusion of children with special needs in regular classrooms in China?”

The questionnaire included 28 items grouped into three belief domains relating to inclusion. The group domains were (1) Core Perspectives, (2) Expected Outcomes and (3) Classroom Practices.

The Core Perspectives consist 12 items. One example of Core Perspectives is “Students with special needs have the right to be educated in the same classroom as typically developing students” (item 1 from MTAI).

The Expected Outcomes consist 11 items. One example of expected outcomes is “Inclusion is socially advantageous for children with special needs” (item 13 from MTAI).

The Classroom Practices consist 5 items. One example of classroom practices is “Children with exceptional needs monopolize teachers’ time” (item 24 from MTAI).

For data analyses, mean and standard deviation were used to summarize teachers' attitudes toward kindergarten inclusion (see Table 4.2). In order to examine teachers' attitudes about kindergarten inclusion, a 4-point, Likert-type response scale (1=Strongly Agree; 2=Agree; 3=Disagree; 4=Strongly Disagree) was used to determine teachers' attitudes toward inclusion. The lower the subscale mean score, the more positive the teachers' attitude. The mean was 2.39 (SD=.26) for Core Perspective, 2.34 (SD=.27) for Expected Outcomes, and 2.81(SD=.38) for Classroom Practice.

Table 4.2 *Means and Standard Deviations of Teachers' Attitudes Toward Kindergarten Inclusion*

Belief Domain Subscale	Mean	Standard Deviation
Core Perspective	2.39	.26
Expected Outcomes	2.34	.27
Classroom Practice	2.81	.38

Note: Likert-type response scale ranging from 1=strongly agree, 2=agree, 3=disagree, 4=strongly disagree

For qualitative description and interpretation, the mean subscale values for teachers' attitudes towards kindergarten inclusion were clustered into three levels by the investigator. The three levels were: (a) 1.00–2.00, high positive attitude; (b) 2.01–3.00, medium positive attitude; and (c) 3.01–4.00, negative attitude. This researcher defined these three levels according to her own preferences. As a result, the operational definitions used by the researcher may for some readers reflect certain emotional laden terms that may raise objections among some people. Table 4.3 on p. 61 indicates the frequency and percentage for teachers' attitudes towards inclusion.

For the subscale of core perspective, 8.5% ($n=20$) of teachers had high positive attitude scores; 88% ($n=211$) of teachers indicated medium positive attitude scores; and 0.8% ($n=2$) of teachers indicated negative attitude scores. For the subscale of expected outcomes, 13.8% ($n=33$) of teachers had high positive attitude scores; 83.3% ($n=200$) of teachers had medium positive attitude scores; and no one had a negative attitude score. For the subscale of classroom practice, 1.2% ($n=3$) of teachers reported high positive attitude scores; 75.9% ($n=182$) of teachers reported medium positive attitude scores; and 20.8% ($n=50$) of teachers reported low negative attitude scores.

Table 4.3 *Frequency and Percentage of Teachers' Attitudes Toward Kindergarten Inclusion ($n=240$)*

Subscale	Level	Frequency	Percentage
Core Perspective	Level-1 high positive attitude	20	8.5
	Level-2 medium positive attitude	211	88.0
	Level-3 negative attitude	2	0.8
	Missing	7	2.9
Expected Outcomes	Level-1 high positive attitude	33	13.8
	Level-2 medium positive attitude	200	83.3
	Level-3 negative attitude	0	0.0
	Missing	7	2.9
Classroom Practice	Level-1 high positive attitude	3	1.2
	Level-2 medium positive attitude	182	75.9
	Level-3 negative attitude	50	20.8
	Missing	5	2.1

In this study, teachers revealed more positive agreement about expected outcomes (13.8%), followed by core perspective (8.5%) and classroom practice (1.2%). Table 4.3 shows that most teachers had medium positive value of agreement on all three subscales, such as core perspective (88%); expected outcomes (83.3%) and classroom practice (75.9%). The results revealed that most teachers held moderately positive attitudes toward kindergarten inclusion. In addition, the frequency and percentage table for each of 28 items of MTAI was presented Appendix D.

Analyses of Relationships between Teacher Variables and Attitudes about Inclusion

This section summarizes information for the second question, “Are there significant relationships between teacher variables (i.e., age, highest education degree, major, current number of children taught, years of teaching children, professional organization membership, experience teaching children with special needs and participation in an inclusion workshop) with teachers’ attitudes towards inclusion?” The purpose of this question was to investigate which factors best explain teachers’ inclusion attitudes as measured by the three subscale scores—core perspective, expected outcomes and classroom practice.

In order to test the reliability (internal consistency) of the questionnaire, Cronbach alpha was used in this study. The reliability analyses for the questionnaire led to the following alphas: (1) Core perspectives, .51, (2) Expected Outcomes, .62, (3) Classroom Practices, .40, and (5) total scale, .69. Guildford (1965) stated that when the Cronbach

alpha ranges from 0.35 to .70, it indicates that the test is acceptable. In this study, the overall test is acceptable.

To most efficiently analyze the data for this question, multiple regression was used. In regression analysis an adequate sample size is needed. A sample size guideline for testing multiple regression is $n \geq 50 + 8(m)$ (m is the number of independent variables), indicating that 104 is the minimum number of cases required (Tabachnick & Fidell, 2007). Thus, there were an adequate number of observations. In addition, the researcher assessed the normality assumption for interval/ratio variables using skewness and kurtosis values and looked for outliers using box and whisker plots. The “normality” guidelines used for skewness values were -1.0 to +1.0 (Huck, 2008, p. 29) and kurtosis values of less than 10 (Kline, 1998). Number of organization memberships originally was measured as interval data and was problematic (skewness value = 4.90, kurtosis value = 32.61 and extreme outliers identified in the box plot). When this issue was not addressed, the regression results were unstable and had residuals that were not normally distributed. This variable was then dummy coded to solve the problem. The linearity assumption was assessed using curve estimation procedures available in regression.

In conducting the multiple regressions, the score for the three subscales—core perspective, expected outcomes and classroom practices—were used as separate dependent variables (Table 4.4). The results of the data analysis included the following teacher variables: (1) age, (2) education degree, (3) major, (4) total years of teaching experience with children, (5) number of children in class, (6) organization membership, (7) prior experience in teaching children with special needs, and (8) participation in an

inclusion workshop. The description statistics for these teacher variables were reported earlier in Table 4.1 on page 56.

Table 4.4 *Summary Statistics for the Three Dependent Variables used in Regression Analysis*

Dependent Variable	Cases	Mean	S.D.	Median	Range	
					Low	High
Core Perspective	202	2.38	.27	2.42	1.67	3.17
Expected Outcomes	202	2.37	.25	2.36	1.64	3.00
Classroom Practice	202	2.78	.35	2.80	1.60	4.00

Note: The dependent variables were measured on a Likert-type response scale ranging from 1=strongly agree, 2=agree, 3=disagree, 4=strongly disagree.

Core Perspective

The results of the multiple regression revealed that age (beta = $-.257$, $p = .042$) and years of teaching children (beta = $.320$, $p = .012$) were the only two variables that significantly influenced core perspective subscale scores (see Table 4.5 on page 64). Older teachers tended to have lower values on the core perspective subscale; whereas more years of teaching experience were associated with higher values on the core perspectives subscale. It is important to note that whether a teacher did or did not previously attend an inclusion workshop approached statistical significance (beta= $-.142$, $p = .057$). The eight predictor variables collectively explained 11.9% of the variance in the core perspective values ($F = 3.265$, $p = .002$).

Table 4.5 *Final Multiple Regression Results of Core Perspective Regressed on Teacher Variables*

Variables	b (SE b)	Beta	p
Constant	2.402 (.110)	-	<.001
Age	-.009 (.004)	-.257	.042
Degree Level ^a	-.061 (.131)	-.032	.642
Major ^b	.037 (.049)	.057	.453
Years Teaching	.056 (.022)	.32	.012
Total Children in Class	.001 (.002)	.024	.741
Organization Membership ^c	.047(.053)	.064	.377
Experience Teaching Children with Special Needs	-.029 (.037)	-.054	.441
Attended Inclusion Workshop ^d	-.119 (.062)	-.142	.057
Model Summary F = 3.265 df = 8/193 p = .002 R Square = .119 Adj. R square = .083			

- a Degree level dummy coded where: 1 = associate degree or higher
0 = technical education or less
- b Major dummy coded where: 1 = early childhood education
0 = all other majors
- c Organization membership coded where: 1 = member of professional organization
0 = not a member of organization
- d Inclusion workshop coded where: 1 = attended inclusion workshop
0 = did not attend inclusion workshop

Expected Outcomes

Four variables were significantly associated with expected outcome values (Table 4.6 on p. 66). Participation in an inclusion workshop was associated with a lower value

on the expected outcomes subscale (beta = $-.180$, $p = .013$) This meant that those attending an inclusion workshop were more likely to be more positive regarding expected outcomes as compared to those who had not previously attended an inclusion workshop. A similar pattern existed for the variable “age”—older teachers tended to have lower expected outcome values, which indicated a more positive attitude regarding expected outcomes (beta = $-.385$, $p = .002$). More years of teaching were associated with having higher expected outcome values, indicating a tendency to disagree to a greater extent regarding expected outcomes (beta = $.427$, $p = .001$). A similar pattern existed for the variable “total children in class”—teachers with more children in class tended to have higher expected outcome values, which indicated a greater likelihood of disagreeing about expected outcomes (beta = $.145$, $p = .042$). Overall, the eight independent variables explained 16% of the variance in expected outcome values ($F = 4.582$, $p < .001$).

Table 4.6 *Final Multiple Regression Results of Expected Outcomes Regressed on Teacher Variables*

Variable	b (SE b)	Beta	p
Constant	2.447 (.102)	-	<.001
Age	-.013 (.004)	-.385	.002
Degree Level ^a	.101 (.122)	.055	.410
Major ^b	-.016 (.046)	-.027	.719
Years Teaching	.067 (.020)	.427	.001
Total Children in Class	.004 (.002)	.145	.042
Organization Membership ^c	.002 (.049)	.003	.971
Experience Teaching Children with Special Needs	-.025 (.035)	.048	.479
Attended Inclusion Workshop ^d	-.141 (.056)	-.180	.013
Model Summary F = 4.582 df = 8/193 p = <.001 R Square = .160 Adj. R square = .125			

a Degree level dummy coded where:

1 = associate degree or higher
 0 = technical education or less

b Major dummy coded where:

1 = early childhood education
 0 = all other majors

c Organization membership coded where:

1 = member of professional organization
 0 = not a member of organization

d Inclusion workshop coded where:

1 = attended inclusion workshop
 0 = did not attend inclusion workshop

Classroom Practice

Table 4.7 summarizes the regression results for the classroom practice subscale. The eight predictor variables did not explain a statistically significant proportion of the variance in the classroom practice subscale ($F = .849$, $p = .561$).

Table 4.7 *Final Multiple Regression Results of Classroom Practice Regressed on Teacher Variables*

Variable	b (SE b)	Beta	p
Constant	2.768 (.154)	-	<.001
Age	-.005 (.006)	-.099	.462
Degree Level ^a	.096 (.181)	.038	.596
Major ^b	-.048 (.068)	-.056	.479
Years Teaching	.045 (.031)	.206	.144
Total Children in Class	.001 (.003)	.011	.888
Organization Membership ^c	.081 (.073)	.083	.271
Experience Teaching Children with Special Needs	-.053 (.051)	-.076	.297
Attended Inclusion Workshop ^d	.024 (.083)	.022	.773
Model Summary F = .849 df = 8/195 p = .561 R Square = .034 Adj. R square = .006			

a Degree level dummy coded where:

1 = associate degree or higher
 0 = technical education or less

b Major dummy coded where:

1 = early childhood education
 0 = all other majors

c Organization membership coded where:

1 = member of professional organization
 0 = not a member of organization

d Inclusion workshop coded where: 1 = attended inclusion workshop
 0 = did not attend inclusion workshop

Analyses of Relationships between Teacher Variables and Perspectives about Degrees of Accommodation of Special Children

This section summarizes information for the third question, “Are there significant relationships between teacher variables (i.e., age, education degree, major, and years of teaching children) and perspectives about accommodation degree for children with various disabilities?”

According to sample size guidelines for testing multiple regressions (Tabachnick & Fidell, 2007), a multiple regression analysis was also used to analyze the relationship. In order to test the reliability (internal consistency) of the eight disabilities accommodations, Cronbach alpha was used in this study. The reliability value was 0.806. When Cronbach alpha is higher than 0.7, it indicates that the summated value across the items is highly reliable (Guildford, 1965). Thus, in conducting the multiple regression, the mean value of accommodation for the eight disabilities was treated as the dependent variable (Table 4.8).

According to Ostrosky, Laumann, and Hsieh (2006), teachers’ attitudes are formed by the following variables: “(a) type of preservice training and level of educational attainment, (b) quality and amount of in-service training for inclusion, (c) adequate time for planning and collaboration, (d) ‘hands-on’ experience with inclusion, (e) type and severity of a child’s disability, and (f) perceived outcomes for children with or without disabilities” (p. 413). Avramidis and Norwich (2002) reported similar variables that influence teachers’ attitudes towards inclusion. Therefore, the results of the data analyses

about teachers' attitudes included the following teacher variables: (1) age, (2) education degree, (3) major, (4) total years of teaching experience with children, (5) number of children in class, (6) organization membership, (7) prior experience in teaching children with special needs, and (8) participation in an inclusion workshop. Thus, the results of data analyses on perspectives about degrees of accommodation of special children used the same teacher variables.

Table 4.8 *Summary Statistics for the Extent of Accommodation Used in Regression Analysis*

Dependent Variable	Cases	Mean	Stand Deviation	Median	Range	
					Low	High
Mean score of accommodation of the eight disabilities	227	2.97	0.63	3.00	1.00	4.00

Note: The dependent variable was measured on a Likert-type response scale ranging from 1= no or very little accommodation, 2= minor accommodation, 3=much accommodation, 4=major accommodation.

Overall the teachers indicated much accommodation had been made for students (mean=2.97, SD=.63). The results of the multiple regression result revealed that the eight predictor variables did not explained a statistically significant proportion of the variance in the accommodation degree ($F=1.852$, $p= .071$). Table 4.9 summarizes the regression results for degree of accommodation.

Table 4.9 *Final Multiple Regression Results of Accommodation Degree Regressed on Teacher Variables*

Variables	b (SE b)	Beta	p
Constant	3.393 (.354)	-	<.001
Age	-.028(.012)	-.340	.018
Degree Level ^a	-.058(.059)	-.078	.329
Major ^b	.095(.078)	.111	.221
Years Teaching	.172(.060)	.429	.004
Total Children in Class	.002 (.007)	.027	.745
Organization Membership ^c	-.074(.046)	-.131	.110
Experience Teaching Children with Special Needs	-.075(.106)	-.057	.479
Attended Inclusion Workshop ^d	-.188(.169)	-.091	.267
<p>Model Summary</p> <p style="text-align: right;">F = 1.852 df = 8/158 p = .071 R Square = .086 Adj. R square = .039</p>			

- a Degree level dummy coded where: 1 = associate degree or higher
0 = technical education or less
- b Major dummy coded where: 1 = early childhood education
0 = all other majors
- c Organization membership coded where: 1 = member of professional organization
0 = not a member of organization
- d Inclusion workshop coded where: 1 = attended inclusion workshop
0 = did not attend inclusion workshop

In addition, Table 4.10 summarizes the frequency and percentage of teachers' perspectives on the eight disabilities. For example, the results showed that 5% of teachers believed autism needs no or very little accommodation; 8.8% reported minor accommodation; 17.1% indicated much accommodation; and 67.1% indicated major accommodation.

Table 4.10 *Frequency and Percentage of Teachers' Perspectives on Degrees of Accommodation of Children's Disabilities*

Eight Disabilities	Level	Frequency	Percentage
Speech and Language Delay	No or Very Little Accommodation	17	7.1
	Minor Accommodation	89	37.1
	Much Accommodation	80	33.3
	Major Accommodation	50	20.8
Learning Disability	No or Very Little Accommodation	9	3.8
	Minor Accommodation	65	27.1
	Much Accommodation	97	41.1
	Major Accommodation	65	27.5
Visual Impairment	No or Very Little Accommodation	33	13.8
	Minor Accommodation	74	30.8
	Much Accommodation	49	20.4
	Major Accommodation	79	32.9
Hearing Impairment	No or Very Little Accommodation	27	11.3
	Minor Accommodation	72	30.0
	Much Accommodation	59	24.6
	Major Accommodation	77	32.1
Physical Impairment	No or Very Little Accommodation	32	13.3
	Minor Accommodation	58	24.2
	Much Accommodation	75	31.3
	Major Accommodation	69	28.8
Emotional Disturbance	No or Very Little Accommodation	21	8.8
	Minor Accommodation	61	25.4
	Much Accommodation	69	28.8
	Major Accommodation	84	35.0
Autism	No or Very Little Accommodation	12	5.0
	Minor Accommodation	21	8.8
	Much Accommodation	41	17.1
	Major Accommodation	161	67.1
Mental Retardation	No or Very Little Accommodation	14	5.8
	Minor Accommodation	33	13.8
	Much Accommodation	55	22.9
	Major Accommodation	134	55.8

Note: Likert-type response scale ranging from 1= No or Very Little Accommodation, 2= Minor Accommodation, 3= Much Accommodation, 4= Major Accommodation

Analyses of Relationship between Teacher Variables and Preparation Level

This section summarizes information for the fourth question, “Are there significant relationships between teacher variables (i.e., age, education degree, major, and years of teaching children with special needs) and preparation level?”

In order to test the reliability (internal consistency) of the eight disabilities, Cronbach alpha was used in this study. The reliability values for the total of teacher preparation for disabilities were 0.894. When the Cronbach alpha is higher than 0.7, it indicates that value is reliable (Guildford, 1965). Thus, in conducting the multiple regression, the mean score of preparation level for the eight disabilities was treated as dependent variable (Table 4.11).

According to Ostrosky, Laumann, and Hsieh (2006), teachers’ attitudes are formed by the following variables: “(a) type of preservice training and level of educational attainment, (b) quality and amount of in-service training for inclusion, (c) adequate time for planning and collaboration, (d) ‘hands-on’ experience with inclusion, (e) type and severity of a child’s disability, and (f) perceived outcomes for children with or without disabilities” (p. 413). Avramidis and Norwich (2002) reported similar variables that influence teachers’ attitudes towards inclusion. Therefore, the results of the data analyses about teachers’ attitudes included the following teacher variables: (1) age, (2) education degree, (3) major, (4) total years of teaching experience with children, (5) number of children in class, (6) organization membership, (7) prior experience in teaching children with special needs, and (8) participation in an inclusion workshop. Thus, the results of data analyses about preparation level used the same teacher variables.

Table 4.11 *Summary Statistics for Teacher Preparation Level Used in Regression Analysis*

Dependent Variable	Cases	Mean	S. D.	Median	Range	
					Low	High
Mean score of preparation level for the eight disabilities	232	2.20	0.77	2.25	1.00	4.00

Note: The dependent variable was measured on a Likert-type response scale ranging from 1=well prepared; 2= somewhat prepared, 3=not well prepared, 4=not prepared at all.

However, the results of the multiple regression showed that the eight predictor variables did not explain a statistically significant proportion of the variance in preparation level in teaching children with disabilities ($F=.689$, $p= .700$). Table 4.12 summarizes the regression results for preparation level.

Table 4.12 *Final Multiple Regression Results of Preparation Level Regressed on Teacher Variables*

Variable	b (SE b)	Beta	p
Constant	1.644 (.421)		<.001
Age	.016(.014)	.167	.251
Degree Level ^a	.069(.071)	.079	.330
Major ^b	-.066(.091)	-.066	.467
Years Teaching	-.029(.070)	-.063	.677
Total Children in Class	-.002(.008)	-.017	.845
Organization Membership ^c	-.066(.054)	-.101	.227
Experience Teaching Children with Special Needs	.107(.125)	.070	.395
Attended Inclusion Workshop ^d	.036(.200)	.015	.859
Model Summary F = .689 df = 8/160 p = .700 R Square = .033 Adj. R square = -.015			

- a Degree level dummy coded where: 1 = associate degree or higher
0 = technical education or less
- b Major dummy coded where: 1 = early childhood education
0 = all other majors
- c Organization membership coded where: 1 = member of professional organization
0 = not a member of organization
- d Inclusion workshop coded where: 1 = attended inclusion workshop
0 = did not attend inclusion workshop

In addition, Table 4.13 summarizes the frequency and percentage of teachers' preparation levels to handle one or more of the eight disabilities. For example, the results showed that 33.3% of teachers believed they were well prepared for autism; 25.0% reported being somewhat prepared; 14.2% indicated being not well prepared; and 25.8% indicated not being prepared at all.

Table 4.13 *Frequency and Percentage of Teachers' Preparation Level*

Eight Disabilities	Level	Frequency	Percentage
Speech and Language Delay	Well prepared	75	31.3
	Somewhat prepared	111	46.3
	Not well prepared	37	15.4
	Not prepared at all	15	6.3
Learning Disability	Well prepared	79	32.9
	Somewhat prepared	101	42.1
	Not well prepared	41	17.1
	Not prepared at all	16	6.7
Visual Impairment	Well prepared	55	22.9
	Somewhat prepared	89	37.7
	Not well prepared	49	20.4
	Not prepared at all	43	17.9
Hearing Impairment	Well prepared	56	23.3
	Somewhat prepared	92	38.3
	Not well prepared	43	17.9
	Not prepared at all	44	18.3
Physical Impairment	Well prepared	68	28.3
	Somewhat prepared	83	34.6
	Not well prepared	52	21.7
	Not prepared at all	31	12.9
Emotional Disturbance	Well prepared	76	31.7
	Somewhat prepared	88	36.7
	Not well prepared	47	19.6
	Not prepared at all	23	9.6
Autism	Well prepared	80	33.3
	Somewhat prepared	60	25.0
	Not well prepared	34	14.2
	Not prepared at all	62	25.8
Mental Retardation	Well prepared	69	28.8
	Somewhat prepared	65	27.1
	Not well prepared	50	20.8
	Not prepared at all	51	21.3

Note: Likert-type response scale ranging from 1= Well prepared, 2= Somewhat prepared, 3= Not well prepared, 4= Not prepared at all

Analyses of Relationship between Teacher Variables and Perspectives of Barriers

This section summarizes information for the fifth question, “Are there significant relationships between teacher variables (i.e., age, education degree, major, and years of teaching children with special needs) and perspectives of barriers (i.e., lack of knowledge in inclusion, little experience in inclusion, limited time, lack the chance of consulting experts about inclusion, little support from school principal, little support and understanding from parents, too many students in class)?”

In order to test the reliability (internal consistency) of the summated value regarding the seven barriers, Cronbach alpha was used in this study. The reliability value of the perspective of the seven barriers was 0.787. When the Cronbach alpha is higher than 0.7, it indicates that the summated value is reliable (Guildford, 1965). Thus, in conducting the multiple regressions, the mean scores of the seven barriers were treated as the dependent variable (Table 4.14).

According to Ostrosky, Laumann, and Hsieh (2006), teachers’ attitudes are formed by the following variables: “(a) type of preservice training and level of educational attainment, (b) quality and amount of in-service training for inclusion, (c) adequate time for planning and collaboration, (d) ‘hands-on’ experience with inclusion, (e) type and severity of a child’s disability, and (f) perceived outcomes for children with or without disabilities” (p. 413). Avramidis and Norwich (2002) reported similar variables that influence teachers’ attitudes towards inclusion. Therefore, the results of the data analyses about teachers’ attitudes included the following teacher variables: (1) age, (2) education degree, (3) major, (4) total years of teaching experience with children, (5) number of children in class, (6) organization membership, (7) prior experience in teaching children

with special needs, and (8) participation in an inclusion workshop. Thus, the results of data analyses about perspectives of barriers used the same teacher variables.

Table 4.14 *Summary Statistics for the Perception of Barriers Used in Regression Analysis*

Dependent Variable	Cases	Mean	S. D.	Median	Range	
					Low	High
Mean score of perspectives of barriers	237	2.04	.53	2.00	1.00	4.00

Note: The dependent variables were measured on a Likert-type response scale ranging from 1=Strongly Agree, 2=Agree, 3=Disagree, 4=Strongly Disagree.

The results of the multiple regression revealed that number of children in class (beta=.163, p=.046) and participation in an inclusion workshop (beta=.259, p=.001) were the only two variables that significantly influenced perspectives of barriers (see Table 4.15 on page 80). Teachers who have more children in their classes tended to have higher values on perspectives of barriers. Having participated in an inclusion workshop was associated with higher values on perspectives of barriers, which indicated participation in an inclusion workshop was associated with a greater orientation toward disagreeing regarding barriers. The eight predictor variables collectively explained 12.7% of the variance in the perspectives of barriers values (F=2.987, p=.004).

Table 4.15 *Final Multiple Regression Results of Perspectives of Barriers Regressed on Teacher Variables*

Variables	b (SE b)	Beta	p
Constant	1.853 (.279)	-	<.001
Age	.015(.009)	.223	.105
Degree Level ^a	-.056(.047)	-.091	.235
Major ^b	-.045(.060)	-.065	.453
Years Teaching	-.080(.047)	-.241	.094
Total Children in Class	.010(.005)	.163	.046
Organization Membership ^c	-.003(.037)	-.005	.944
Experience Teaching Children with Special Needs	-.052(.083)	-.049	.530
Attended Inclusion Workshop ^d	.424(.128)	.259	.001
Model Summary F = 2.987 df = 8/164 p = .004 R Square = .127 Adj. R square = .085			

- a Degree level was dummy coded where: 1 = associate degree or higher
0 = technical education or less
- b Major was dummy coded where: 1 = early childhood education
0 = all other majors
- c Organization membership coded where: 1 = member of professional organization
0 = not a member of organization
- d Inclusion workshop coded where: 1 = attended inclusion workshop
0 = did not attend inclusion workshop

In addition, in order to find the major barriers identified by teachers in early inclusive education, the mean value of each barrier was calculated in this study (Table 4.16). The lower the mean score, the more likely it was that teachers agreed about the existence of that item as a barrier. The lowest two mean values were 1.69 (SD=.76) for “Lack of knowledge in inclusion”, and 1.76 (SD=.76) for “Little experience in inclusion”.

Table 4.16 *Means and Standard Deviations of Teachers’ Belief on Barriers*

Belief on Barriers	Mean	Standard Deviation
Lack of knowledge in inclusion	1.69	0.76
Little experience in inclusion	1.76	0.76
Limited time	2.27	0.83
Lack the chance of consulting experts about inclusion	1.94	0.76
Little support from school principal	2.31	0.80
Little support and understanding from parents	2.17	0.83
Too many students in class	2.16	0.85

Note: Likert-type response scale ranging from 1=strongly agree, 2=agree, 3=disagree, 4=strongly disagree

Chapter 5

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this chapter is to present a summary, discussion, conclusions and recommendations for this study. This chapter is organized as follows: (1) Overview of the Research Design, (2) Discussion, (3) Conclusion, and (4) Recommendations.

Overview of the Research Design

The overview of the research design has two sections. They are divided as follows: (1) Purpose of the Study, and (2) Research Procedures.

Purpose of the Study

The primary purpose of this study was to investigate kindergarten teachers' attitudes toward inclusion in early childhood programs. The second purpose was to examine teachers' perspectives on the degree of accommodation and level of preparation needed to work with those with different disabilities. Finally, this study attempted to explore the barriers that affect kindergarten teachers' attitudes related to inclusion.

The following research questions were formulated:

1. What are kindergarten teachers' attitudes toward inclusion of children with special needs in regular classrooms in China?

2. Are there significant relationships between teacher variables (i.e., age, education degree, major, years of teaching, total children in class, organization membership, prior experience in teaching children with special needs, participation in inclusion workshop) and teachers' attitudes toward inclusion?
3. Are there significant relationships between teacher variables (i.e., age, education degree, major, years of teaching, total children in class, organization membership, prior experience in teaching children with special needs, participation in inclusion workshop) and perspectives about accommodation degree for children with various disabilities?
4. Are there significant relationships between teacher variables (i.e., age, education degree, major, years of teaching, total children in class, organization membership, prior experience in teaching children with special needs, participation in inclusion workshop) and teachers' preparation level?
5. Are there significant relationships between teacher variables and perspectives of barriers (i.e., lack of knowledge in inclusion, little experience in inclusion, limited time, lack the chance of consulting experts about inclusion, little support from school principal, little support and understanding from parents, too many students in class)?

Research Procedures

The target population for this study was the teachers in Beijing government kindergartens. There were 250 possible participants.

The instrument used in this study was comprised of two sections: (1) the *My Thinking about Inclusion* (MTAI) scale (Stolber, Gettinger & Goetz, 1998), and (2) demographic information. The first section, the *My Thinking about Inclusion* (MTAI) scale, contained 28 items on three subscales — core perspective, expected outcomes and classroom practices. A 4-point Likert-type response scale ranging from “1=strongly agree” to “4=strongly disagree” was applied to the statements to determine teachers’ attitudes. A pragmatics section was also included in the MTAI. Teachers were presented with a list of 8 disability types and asked to indicate the degree to which they believe they can accommodate within the kindergarten setting students with that type of disability. Teachers were asked to indicate their degree of accommodation using a 4-point response scale (1=No or Very little Accommodation, 2 =Minor Accommodation, 3=Much Accommodation; 4=Major Accommodation).

The same eight disability profiles were presented again and teachers were asked to indicate, “the level of preparedness that you feel you have in teaching children in a full inclusive classroom setting” (1=Not Prepared, 2=Minor Accommodation, 3=Much Accommodation, 4=Major Accommodation). Also, teachers were asked to indicate their agreement with beliefs about seven barriers (e.g., lack of knowledge in inclusion; and little experience in inclusion) from “Strongly Agree” to “Strongly Disagree”, and to rank six methods (e.g., observation of other teachers in the inclusive class) for improving inclusion from least preferred (1) to preferred (6).

The second section of the questionnaire was comprised of eight items that sought demographic information from the participants on age, highest degree, major, total

teaching years, total children in class, prior experience in teaching special children and inclusion workshop experience.

The questionnaire was pilot-tested using 16 volunteers from the targeted population. The purpose of the pilot-test was to examine the participants' understanding of the survey items and to identify any difficulty they might have in following the instructions for completing the survey. After collecting data from the participants, the investigator reviewed and analyzed their responses to the pilot study and then revised the questionnaires based on their responses.

The 250 questionnaires were distributed from September 2008 to November 2008. Eventually, of the 250 participants, 240 completed and returned their survey for a return rate of 96%. However, there were 70 incomplete questionnaires. The final valid questionnaire rate was 68% in this study.

Data gathered were analyzed using the statistical software SPSS, version 15.0 for Windows. To analyze data, descriptive statistics and multiple regression analysis were performed in this study.

Discussion

The present study examined kindergarten teachers' attitudes toward inclusion, their perceived accommodation degree and preparation level for children with disabilities in China. In this section, the investigator presents a discussion of the results for each research question.

Research Question One

What are kindergarten teachers' attitudes toward inclusion of children with special needs in regular classrooms in China?

In order to examine teachers' attitudes toward kindergarten inclusion, a 4-point Likert-type response scale (1=Strongly Agree; 2=Agree; 3=Disagree; 4=Strongly Disagree) was applied to each question to determine teachers' attitudes toward inclusion. The lower the subscale's mean score, the more positive the teachers' attitude. The mean was 2.39 (SD=.26) for core perspective, 2.34 (SD=.27) for expected outcomes, and 2.81(SD=.38) for classroom practice.

In order to obtain a clear understanding of the differences among the three subscales, the investigator clustered the teachers' mean scores into three levels. The three levels of attitudes score were: (a) 1.00–2.00, high positive attitude; (b) 2.01–3.00, medium positive attitude; and (c) 3.01–4.00, negative attitude.

For the subscale on core perspectives, 8.5% ($n=20$) of teachers had high positive attitude scores; 88% ($n=211$) had medium positive attitude scores; and 0.8% ($n=2$) had negative attitude scores. For the subscale on expected outcomes, 13.8% ($n=33$) had high positive attitude scores; 83.3% ($n=200$) had medium positive attitude scores; and no one had a negative attitude score. For the subscale on classroom practice, 1.2% ($n=3$) had high positive attitude scores; 75.9% ($n=182$) had medium positive attitude scores; and 20.8% ($n=50$) had negative attitude scores.

In most of the literature reviewed (Dinnebeil et al., 1998; Eiserman, Shisler, & Healey, 1995; Wu, 2004), teachers in early childhood education programs showed moderately or overwhelmingly positive attitudes toward the general concept of including

children with disabilities. The early childhood teachers were more likely to accept inclusion in early education, because inclusion in early childhood education has been generally accepted in the United States. The present study results revealed that most teachers hold medium positive attitudes toward kindergarten inclusion. In the present study, most teachers' choices fell into the level of medium positive attitude score (2.01–3.00). A possible explanation may be that inclusion is a new term for most Chinese kindergarten teachers (Yang, 2005). Thus, the present research results show that most Chinese teachers hold conservatively positive attitudes toward this concept.

In sum, inclusion in early childhood education is a new concept for most Chinese teachers (Yang, 2005). Therefore, most Chinese teachers showed conservatively positive attitudes toward inclusion in kindergarten.

Research Question Two

Are there significant relationships between teacher variables (i.e., age, education degree, major, years of teaching, total children in class, organization membership, prior experience in teaching children with special needs, participation in inclusion workshop) and teachers' attitudes toward inclusion?

To examine the relationship between teacher variables and teachers' attitudes toward inclusion, the score for the three subscales—core perspective, expected outcomes and classroom practices—were used as separate dependent variables. The results of the data analysis included the following teacher variables: (1) age, (2) education degree, (3) major, (4) total years of teaching experience with children, (5) number of children in

class, (6) organization membership, (7) prior experience in teaching children with special needs, and (8) participation in an inclusion workshop.

The results were as follows: (1) *Core Perspective*. The results revealed that age (beta = $-.257$, $p = .042$) and years of teaching children (beta = $.320$, $p = .012$) were the only two variables that significantly influenced core perspective subscale scores. It is important to note that whether a teacher did or did not previously attend an inclusion workshop approached statistical significance (beta= $-.142$, $p = .057$). (2) *Expected Outcomes*. Results indicated that age (beta= $-.385$, $p = .002$), years of teaching (beta = $.427$, $p = .001$), total children in class (beta= $.145$, $p = .042$) and participation in an inclusion workshop (beta = $-.180$, $p = .013$) were the four variables significantly associated with expected outcome values. (3) *Classroom practice*. The eight predictor variables did not explain a statistically significant proportion of the variance in the classroom practice subscale ($F = .849$, $p = .561$).

First, more years of teaching experience were associated with having higher values on the core perspectives and expected outcomes subscale, indicating a tendency to disagree to a greater extent on the issue of inclusion. Yu (2006) also stated that the teachers with fewer years of teaching experience had significantly more positive attitudes toward inclusion than those with more years of teaching experience. One possible explanation may be that the teachers with fewer years of teaching experience are more likely to be young teachers with a higher education and greater access to information on inclusion. For example, young teachers may be more skilled in getting information about inclusion from the Internet.

Second, participation in an inclusion workshop was associated with a lower value on the core perspectives and expected outcomes subscale. This means that those attending an inclusion workshop were more likely to be more positive regarding inclusion as compared to those who had not previously attended an inclusion workshop. Previous research has investigated the association between teachers' attitudes and in-service training. Buell et al. (1999) also stated that teachers exhibited more favorable attitudes toward inclusion after their in-service training. It is reasonable that teachers hold positive attitudes towards inclusion when they have received appropriate training and get well prepared to teach children with disabilities. Gemmell-Crosby and Hanzlik (1994) also found that teachers' attitudes toward the inclusion concept are positively related to the level of support and training received regarding inclusion.

Third, older teachers tended to have lower values on the core perspectives and expected outcomes subscales, which indicated a more positive attitude toward inclusion. The finding differs from those in previous research. However, Yu (2006) reported that teachers with young age held more positive attitudes towards inclusion in early education. Similarly, Clough and Lindsay (1991) found that younger teachers were more supportive of integration. One reason for the difference in findings may be the age of the sample in the present study. In this study, 89.5% of the teachers were 39 or younger and only 10.2% were 40 or older. In China, kindergarten turnover rate is high due to low salary, low respect and heavy load. A large number of teachers change their profession (China News, 2008; Jiang & Wang, 1999). Thus, old teachers who stick to their post may have a greater tolerance level for children with special needs and express more positive attitudes toward inclusion.

Four, teachers with more children in class tended to have higher expected outcome values, which indicated a greater orientation toward disagreeing about expected outcomes. Clough and Lindsay (1991) also stated that small classes have been found to generate positive attitudes toward inclusion. In this study, two or three teachers were responsible for one class of children—72.9% of these classes were typically crowded with children, with numbers of children in the class ranging from 20 to 50. It is reasonable that teachers with more children in class tended to disagree to a greater extent regarding expected outcomes. “Often, there are few teaching aids available, and teachers are overworked and underpaid” (Chen, 1996, p. 49). Therefore, teachers’ own experiences and other environmental factors may influence the formation of teachers’ attitudes toward inclusion.

In addition, there is no significant difference among education degree, major, organization membership, and prior experience in teaching children with special needs. These findings differ from those reported in previous research. Stoiber, Gettinger, and Goetz (1998) reported that practitioners with a high school degree were less supportive of inclusive classroom practices than were practitioners with master’s degrees and teachers’ prior experience with disabilities held more positive attitudes than did those with less experience. There may be several possible reasons for the difference in the results between this study and those from other studies. First, the demographic survey in the present study did not identify whether teachers had taken courses in special education **or** how many courses they had taken in special education. Second, most participants in this study majored in early childhood education (79.6%) or special education (2.5%). Third,

teachers in this study had limited or no inclusion education in pre-service or in-service training.

In sum, first, more years of teaching experience was associated with having higher values on the core perspectives and expected outcomes subscale, indicating a tendency to disagree to a greater extent regarding inclusion. Second, participation in an inclusion workshop was associated with a lower value on the core perspectives and expected outcomes subscale. This means that those attending an inclusion workshop were more likely to be more positive regarding inclusion as compared to those who had not previously attended an inclusion workshop. Third, older teachers tended to have lower values on the core perspectives and expected outcomes subscales, which indicated a more positive attitude toward inclusion. Fourth, teachers with more children in class tended to have higher expected outcome values, which indicated a greater likelihood to disagree about expected outcomes.

Research Question Three

Are there significant relationships between teacher variables (i.e., age, education degree, major, years of teaching, total children in class, organization membership, prior experience in teaching children with special needs, participation in inclusion workshop) and perspectives about accommodation degree for children with various disabilities?

To conduct the multiple regression, the mean value of accommodation for the eight disabilities was treated as the dependent variable. According to Ostrosky, Laumann, and Hsieh (2006), the results of the data analyses about teachers' attitudes included the following teacher variables: (1) age, (2) education degree, (3) major, (4) total years of

teaching experience with children,, (5) number of children in class, (6) organization membership, (7) prior experience in teaching children with special needs, and (8) participation in an inclusion workshop. Thus, in this research study, the results of data analyses about perspectives on accommodation degree used the same teacher variables..

The results of the multiple regression revealed no significant differences in teachers' perspectives about accommodation degree for children with various disabilities when examined by teachers' variables ($F=1.852$, $p= .071$). Stoiber, Gettinger, and Goetz (1998) found a significant difference in participants' perspectives of accommodations when examined by their years of experience with inclusive programs. One reason for the difference in findings may be participants' experience. Stoiber and her colleagues recruited participants from early childhood inclusive programs in Wisconsin, so all these participants had experience with children with various disabilities. In the current study, over one-half of the teachers (55%) had no experience with children with disabilities. Therefore, the difference between the current study and other study may be due to the different experience of participants.

In sum, there are no significant differences in teachers' perspectives about accommodation degree for children with various disabilities when examined by teachers' variables. It may be because most teachers had no experience with children with disabilities in the current study.

Research Question Four

Are there significant relationships between teacher variables (i.e., age, education degree, major, years of teaching, total children in class, organization

membership, prior experience in teaching children with special needs, participation in inclusion workshop) and teachers' preparation level?

To conduct the multiple regression, the mean value of teachers' preparation level for the eight disabilities was treated as the dependent variable. According to Ostrosky, Laumann, and Hsieh (2006), the results of the data analyses about teachers' attitudes included the following teacher variables: (1) age, (2) education degree, (3) major, (4) total years of teaching experience with children,, (5) number of children in class, (6) organization membership, (7) prior experience in teaching children with special needs, and (8) participation in an inclusion workshop. Thus, in this research study, the results of data analyses about teachers' preparation level.

The results of the multiple regression showed that the eight teacher variables did not explain a statistically significant proportion of the variance in preparation level in teaching children with disabilities ($F=.689$, $p=.700$). Previous studies have indicated that teachers were less willing to serve children who had severe to profound disabilities in leg functioning, muscle tone, and appropriate behavior (Buysse et al., 1996; Gemmell-Crosby & Hanzlik, 1994). Stoiber, Gettinger, and Goetz (1998) found a significant difference in participants' perspectives on preparation level when examined by their education degree. The possible reason for the difference in findings may be related to teachers' experience. Previous research (Buysse et al., 1996; Stoiber, Gettinger, & Goetz, 1998) recruited participants from early childhood inclusive programs, so all these participants had experience with children with various disabilities. In the current study, over one-half of the teachers (55%) had no experience with children with disabilities.

Therefore, the difference between the current study and other studies may be due to the different experiences of the participants.

In sum, there are no significant differences in teachers' perspectives about preparation level for children with various disabilities when examined by teachers' variables. It may be because that most teachers had no experience with children with disabilities in the current study.

Research Question Five

Are there significant relationships between teacher variables and perspectives of barriers (i.e., lack of knowledge in inclusion, little experience in inclusion, limited time, lack the chance of consulting experts about inclusion, little support from school principal, little support and understanding from parents, too many students in class)?

The results indicated that number of children in class ($\beta=.163$, $p=.046$) and participation in an inclusion workshop ($\beta=.259$, $p=.001$) were the only two variables that significantly influenced perspectives of barriers. Teachers who have more children in their classes tended to have higher values on perspectives of barriers. This means that teachers who have more children in their class were more likely to disagree regarding barriers. Having participated in an inclusion workshop was associated with higher values on perspectives of barriers, which indicated participation in an inclusion workshop was associated with a greater orientation toward disagreeing regarding barriers.

There may be several possible reasons. First, in this study, two or three teachers were responsible for one class of children—72.9% of these classes were typically

crowded with children, with numbers of students ranging from 20 to 50. “Often, there are few teaching aids available, and teachers are overworked and underpaid” (Chen, 1996, p. 49). Therefore, teachers’ own experiences and other environmental factors may influence the formation of teachers’ perceptions on inclusion barriers. Second, completed training on inclusion had an impact on teachers’ attitudes (Eiserman, Shisler, & Healey, 1995). Therefore, teachers who participated in an inclusion workshop felt more confident about teaching in an inclusion setting, and experienced fewer barriers.

The results in Smith and Smith (2000) showed teachers were concerned about class load (e.g., class size), classroom support (e.g., paraprofessionals), time, and training (e.g., in-service training). Stoiber, Gettinger, and Goetz (1998) reported limited time and limited opportunities for collaboration were rated as the greatest barriers. However, to this researcher’s knowledge, no similar study of the relationship between teacher variables and perspectives of barriers has been conducted.

In sum, researchers (Smith and Smith, 2000; Stoiber, Gettinger, and Goetz, 1998) reported that teachers’ perspectives of barriers. However, there is no study about the relationship between teachers’ variables and perspectives.

Conclusion

The conclusions were generated by the investigator using the following statements: (1) This study was developed to broaden understanding of early childhood teachers’ attitudes toward inclusion in China, and (2) Study findings could contribute to education programming for students and professional training for teachers in China. Accordingly, the conclusions are listed and explained below.

First, most teachers held a moderately positive attitude toward inclusion in kindergarten in China.

Second, the study indicated that age, years of teaching, total children in class and participation in an inclusion workshop were the four variables significantly associated with teachers' attitudes toward inclusion.

Third, the results revealed no significant difference in teachers' perspectives about accommodation degree for children with various disabilities when examined by teachers' variables.

Fourth, the results revealed no significant difference in teachers' preparation level in teaching children with disabilities when examined by teachers' variables.

Fifth, the study showed number of children in class and participation in an inclusion workshop were the two variables that significantly influenced perspectives on barriers.

Recommendations

The following recommendations are based on the findings and conclusions from this study of teachers' attitudes toward kindergarten inclusion in China. The recommendations are offered as follows: (1) Recommendations for Chinese Government, (2) Recommendations for Chinese Principals, and (3) Recommendations for Future Study.

Recommendations for Chinese Government

There are two recommendations for Government. They are as follows:

1. Different from findings about teachers in studies by researchers (e.g.,

Gemmell-Crosby & Hanzlik, 1994; Marchant, 1995) in Western nations, many Chinese teachers in early childhood programs have limited knowledge of inclusion and of different types of disabilities. Therefore, it is recommended that the Chinese government provide more resources on inclusion and special education for kindergarten teachers in China. These resources should provide information about disabilities, inclusive education, the advantages of inclusion, the right of children with disabilities. With access to such information, inclusion will be accepted more willingly by teachers.

2. In order to provide a base for understanding attitudes, it is recommended that the results of this research study should be shared with the Ministry of Education, administrators, and teachers.

Recommendations for Chinese Principals

The study results revealed that teachers with inclusion workshop experience held more positive attitudes toward inclusion. Therefore, Chinese principals should provide teachers more opportunities for longitude in-service training and encourage teachers to observe quality inclusion programs. In this study, most teachers have no knowledge about special education and no experience about teaching children with special needs. The longitude in-service training program should focus on the knowledge of inclusion, the characteristics of students with disabilities, effective teaching methods, and successful classroom strategies

Recommendations for Future Study

There are two recommendations for future study. They are as follows:

1. The present study's findings indicate that some teachers' variables affect teachers' attitudes toward inclusion. These variables are age, years of teaching children, and participation in an inclusion workshop. Further research should continue to explore the teachers' attitudes in depth, not only through quantitative methods but through qualitative methods in order to better understand their attitudes toward inclusion. For example, future research can involve an open-ended questionnaire, interview, and observation to examine teachers' attitudes.
2. Future research on the attitudes of parents and administrators toward inclusion should receive equal attention. Attention to each of these issues may lead to more benefits for young children with and without disabilities in China.

Summary

This chapter was organized to present a discussion, conclusions and recommendations for this study. They were divided into the following sections: (1) Overview of the Research Design, (2) Discussion, (3) Conclusion, and (4) Recommendations for Practice and Future Study.

The conclusions were as follows:

First, most teachers held a moderately positive attitude toward inclusion of children with special needs in kindergarten.

Second, the study indicated that age, years of teaching, total children in class and participation in an inclusion workshop were the four variables significantly associated with teachers' attitudes towards inclusion of children with special needs in kindergarten.

Third, the results revealed no significant difference in teachers' accommodation degree (1=No or Very little Accommodation; 2 =Minor Accommodation; 3=Much Accommodation; 4=Major Accommodation) for children with various disabilities when examined by teachers' variables (e.g., age, and education degree).

Fourth, the results revealed no significant difference in teachers' preparation level in teaching children with disabilities when examined by teachers' variables (e.g., age, and education degree).

Fifth, the study showed number of children in class and participation in an inclusion workshop were the two variables that significantly influenced teachers' perspectives of barriers in including children with special needs in class.

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APPENDIX A**Survey about Teachers' Attitudes toward Kindergarten Inclusion
in China**

Survey about Teachers' Attitudes toward Kindergarten Inclusion in China

Dear teachers,

Thank you very much for taking time out of your busy schedule to participate in this study. With the trend of inclusion being upwards, more and more students with disabilities will be educated in the general education classes. I am doing a research about teachers' attitudes towards kindergarten inclusion in China. The information you offer is highly valuable and will be used for reference.

Your participation in this study is voluntary. You have the right to end the survey at any time. This questionnaire will not involve a sensitive topic. This survey remains confidential. Any information which will be only used for research analysis will not be released even though the research is published. Please complete the following questions and return in the envelope provided. Your return of the complete survey indicates your approval of participating in this research.

If you have any question, please let me know. I would be very happy to answer your questions. I can be researched via email, dxg254@psu.edu, or phone, 814-574-3663. Thanks again for your participation.

Sincerely,

Donghua Gu
Ph.D Student
The Pennsylvania State University

Part I : My Thinking about Inclusion Scale (Stolber, Gettinger & Goetz, 1998)

Instruction: For each of the following 28 statements, please indicate your attitudes by circling one of the correspondent numbers. Note: Please choose only one answer.

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

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

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

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(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.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

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

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

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

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

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

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(7) Most special education teachers lack an appropriate knowledge base to educate typically developing students effectively.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(8) The individual needs of children with disabilities CANNOT be addressed adequately by a regular education teacher.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(9) We must learn more about the effects of inclusive classrooms before inclusive classroom take place on a large scale basis.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(10) The best way to begin educating children in inclusive setting is just to do it.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(11) Most children with exceptional needs are well behaved in integrated education classrooms.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(12) IT is feasible to teach children with average abilities and exceptional needs in the same classroom.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(13) Inclusion is socially advantageous for children with special needs.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

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

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

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

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(16) The presence of children with exceptional education needs promotes acceptance of individual difference on the part of typically developing students.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(17) Inclusion promotes social independence among children with special needs.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(18) Inclusion promotes self-esteem among children with special needs.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(19) Children with exceptional needs are likely to exhibit more challenging behaviors in an integrated classroom setting.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(20) Children with special needs in inclusive classrooms develop a better self-concept than in a self-contained classroom.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(21) The challenge of a regular education classroom promotes academic growth among children with exceptional education needs.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(22) Isolation in a special class does NOT have a negative effect on the social and emotional development of students prior to middle school.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(23) Typically developing students in inclusive classrooms are more likely to exhibit challenging behaviors learned from children with special needs.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(24) Children with exceptional needs monopolize teachers' time.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

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

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(26) Parents of children with exceptional education needs require more supportive services from teachers than parents of typically developing children.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(27) Parents of children with exceptional needs present no greater challenge for a classroom teacher than do parents of a regular education student.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

(28) A good approach to managing inclusive classroom is to have a special education teacher be responsible for instructing the children with special needs.

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

Part II: Degree of Accommodation and Level of Preparation According to Disability Type

(1) There are eight types of disabilities below. Please indicate the ease that you believe each type of disability can be accommodated in an inclusive classroom setting. There are four choices for each type of disability. Circle the response that best describes your belief. If you have any question about the types of disabilities, please refer to the definitions attached to the questionnaire.

	No or Very Little Accommodation	Minor Accommodation	Much Accommodation	Major Accommodation
1. Speech and Language Delay	①	②	③	④
2. Learning Disability	①	②	③	④
3. Visual Impairment	①	②	③	④
4. Hearing Impairment	①	②	③	④
5. Physical Impairment	①	②	③	④
6. Emotional Disturbance	①	②	③	④
7. Autism	①	②	③	④
8. Mental Retardation	①	②	③	④

(2) There are eight types of disabilities below. Please indicate the level of preparedness that you feel you have in teaching children with these disabilities in a full inclusive classroom setting. There are four choices for each type of disability. Circle the response that best describes your belief. If you have any question about the types of disabilities, please refer to the definitions attached to the questionnaire.

	Well prepared	Somewhat prepared	Not well prepared	Not prepared at all
1. Speech and Language Delay	①	②	③	④
2. Learning Disability	①	②	③	④
3. Visual Impairment	①	②	③	④
4. Hearing Impairment	①	②	③	④
5. Physical Impairment	①	②	③	④
6. Emotional Disturbance	①	②	③	④
7. Autism	①	②	③	④
8. Mental Retardation	①	②	③	④

Part III: Barriers to Inclusion in Early Education

For each of the following seven barriers, please indicate your belief by circling one of the correspondent numbers. Note: Please choose only one answer.

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Lack of knowledge in inclusion	①	②	③	④
2. Little experience in inclusion	①	②	③	④
3. Limited time	①	②	③	④
4. Lack the chance of consulting experts about inclusion	①	②	③	④
5. Little support from school principal	①	②	③	④
6. Little support and understanding from parents	①	②	③	④
7. Too many students in class	①	②	③	④

Part IV: Questions about yourself

(1) Your age is _____.

(2) Highest degree is Junior High school Senior High school
 Technical Secondary School Associate Degree
 Bachelor Degree Master and beyond

(3) Your major was Early Childhood Education Special Education
 Others _____

(4) How many total years have you taught in early childhood education?

0-1 year 2-3 years 4-5 years
 6-9 years 10-15 years more than 15 years

(5) How many total children do you take care of everyday?

(6) How many education memberships do you have?

(7) Have you taught special children before? yes no

If yes, please choose the type of disability. You can make more choices.

Speech and Language Delay Learning Disability Visual Impairment
 Hearing Impairment Physical Impairment Emotional Disturbance
 Autism Mental Retardation

(8) Have you participated in inclusion workshop in the past three years?

Descriptions of Disabilities

Speech and Language Delay

Definition: A child's language is developing at a slower rate. He has the problem of mispronunciation or cannot be understood by other people, which make it hard to communicate with other people.

Learning disability

Definition: Learning disability is a disorder with the individual which is caused by neurological impairments. It is not caused by sensory, intelligence quotient, emotion, culture and teaching environment. This disability interferes with the attention, memory, understanding, logic, expression and coordination, which cause children to have significantly difficulty in listening, speaking, reading and writing.

Visual Impairment

Definition: It is a significant limitation of visual capability resulting from a congenital or degenerative condition. It cannot be corrected by conventional means, including refractive correction, medication, or surgery.

Hearing Impairment

Definition: It is full or partial decrease in the ability to detect or understand sounds

resulting from a congenital or degenerative condition.

Physical Impairment

Definition: Arms, legs and trunk are full or partial impaired, limited and delayed.

Emotional Disturbance

Definition: It is characterized by chronically or severely deviant disruptive, aggressive or impulsive behaviors, or social maladjustment. This disability is not caused by intelligence quotient, sensory or health.

Autism

Definition: It is a brain development disorder that impairs social interaction, communication and behavior, and causes maladjustment in study and life.

Mental Retardation:

Definition: It is characterized by subaverage cognitive functioning, causing severe difficulty in study and life.

Thank you for your help!

APPENDIX B
Informed Consent Document



Informed Consent Form for Social Science Research

The Pennsylvania State University

Title of Project: Teachers' Attitudes Toward Kindergarten Inclusion In China

Principal Investigator: Donghua Gu
870 Cricklewood Dr. Apt 321
State College, PA 16803
814-574-3663 dxg254@psu.edu

Advisor: Dr. Thomas Yawkey
204 Chambers Building
The Pennsylvania State University
University Park, PA 16802
U. S. A
814-863-2937 tdy1@psu.edu

Other Investigator(s):

1. **Purpose of the Study:** The purpose of this research is to examine general kindergarten teachers' attitudes towards inclusion in China. Then, this study attempts to explore the factors that affect kindergarten teachers' attitudes related to inclusion.
2. **Procedures to be followed:** You will be asked to answer 41 questions on a survey.
3. **Duration/Time:** It will take about 20 minutes
4. **Statement of Confidentiality:** Your participation in this research is confidential. The data will be stored and secured at personal computer in a password protected file. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared.
5. **Right to Ask Questions:** If you have any question or concern, please contact Donghua Gu via email, dxg254@psu.edu or phone, 001-814-574-3663.
6. **Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits you would receive otherwise.

You must be 18 years of age or older to consent to take part in this research study. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below.

You will be given a copy of this form for your records.

Participant Signature

Date

Person Obtaining Consent

Date

APPENDIX C
Training Protocol for Research on Teachers' Attitudes toward
Kindergarten Inclusion in China

Training Protocol for Research on Teachers' Attitudes toward Kindergarten Inclusion in China

Welcome to the Training Protocol

The Trainer says, "Welcome to the Training Protocol for research on teachers' attitudes toward kindergarten inclusion in China. I am interested in examining kindergarten teachers' attitudes toward inclusion in China. Inclusion means integrating students with disabilities into general education with typically developing students as full-time members. For example, some kindergartens accommodate students with visual impairments."

Purpose of the Training Protocol

The purpose of this Training Protocol is to train the examiner to correctly collect data about general kindergarten teachers' attitudes toward inclusion in China. There are several reasons why this Training Protocol is important to those training. These reasons include the following:

1. **To ensure that data collection procedures are done correctly.** For example, the investigator trains the trainee not to express her personal opinions and thereby influence the participants' attitudes, such as "inclusion education is very good to children."

2. **To ensure the participants' rights.** For example, the investigator trains the trainee to give participants enough time to fill out the questionnaire and be aware that participants have the right to stop at any time during the survey.

3. **To assure the participants' privacy.** For example, the investigator trains the trainee to understand that participation in this research is confidential. Only the investigator has access to participants' personal information.

Training Examiners to Administer the Instrument

This Training Protocol has several phases. Each of these phases or parts is listed below:

1. Becoming Aware of the Instrument;
2. Surveying the Instrument;
3. Administering the Instrument to Trainees;
4. Practicing the Administration of the Instrument with Trainees;
5. Providing Feedback to Trainees in the Practice Section; and
6. Retrain the Trainer for more practices.

Each of these phases is explained below, with examples.

Phase 1: Becoming Aware of the Instrument

The instrument is entitled, "My Thinking about Inclusion (MTAI)." It was developed to explore parents' and early childhood practitioners' beliefs. The authors of the MTAI are: Drs Stolber, Gettinger and Goetz. All of these researchers are from the University of Wisconsin, Milwaukee, in the United States.

Written permission to use the MTAI was given to this researcher on March 16, 2007. This written permission is on file with this researcher and a copy of authorization may be provided upon request to: Ms. Donghua Gu, 403 D Eagle Heights, Madison, WI 53705, U.S.A.

The MTAI is composed of three sub-batteries: Core Perspectives, Expected Outcomes, and Classroom Practices. There are 28 questions across these three sub-batteries. Core Perspectives contains 12 items. The second battery, Expected Outcomes, contains 11 items. The final battery is titled, “Classroom Practices” and contains 5 items.

The teachers are asked to indicate their degree of agreement using a Likert-type four-part scale. Each point on this four-point scale indicates the following degree of agreement: Strongly Agree (1 point) , Agree (2 points), Disagree (3 points), Strongly Disagree (4 points).

Phase 2: Surveying the Instrument

The trainer (the investigator) will contact the kindergarten principal via email and phone call and select 7 kindergartens for surveys. After getting permission from kindergarten principal, the trainer will send the examiner to each center to distribute packets to each participant at a group meeting. The packet includes: (1) instructions that states the purpose of this research and study procedures; (2) an informed consent form that provides participants with information on their rights and privacy; and (3) a copy of the questionnaire.

After the survey is done, the examiner will mail them to the investigator by FedEx.

Phase 3: Administering the Instrument to Trainees for Training Purposes

In order to ensure that the trainee fully understands the procedure, the trainer will administer the instrument to the trainee for training purposes. The trainer will say to the trainee, “Hello!. Thank you very much for participating in the study by Donghua Gu, a Ph.D. student in early childhood education at Penn State University. This study is about

teachers' attitudes toward *suiban jiudu* (i.e., inclusion) in kindergarten in China. I am in charge of distributing and collecting questionnaires. Later I will give everybody an envelope. Each envelope contains three documents: (1) a letter by Donghua Gu that states the purpose of this research, (2) two informed consent forms that give participants an understanding of their rights, and (3) a copy of the questionnaire. Do you have any questions? If you have any questions you would like to ask the investigator, Donghua Gu, or her advisor, you may contact them through email or by phone as listed on the consent form”

The trainer will distribute an envelope to the trainee and say, “Please read the letter and consent form. If you would like to participate in this research, please sign your name to express that you understand your rights. You can keep one copy of consent form and return the other one to me with your signature.”

The trainer will collect the consent form and give participants enough time to finish the questionnaire. The examiner will then say, “After you are done with your questionnaire, please put the questionnaire into the envelope, and I will seal the envelope for you. The investigator, Donghua Gu, is the only person who has access to your information. I want to thank you for taking time to participate in this survey.”

Phase 4: Practicing Administration of the Instrument with Trainees

After the trainer administers the questionnaire to the trainee, the trainer will ask if the trainee has any questions. If the trainee does not have any questions, the trainer will ask her to practice administering the instrument to the trainer. In the practice section, the trainer will offer prompts to the trainee when necessary. The trainer will practice with trainees until she can administer the instrument independently.

Phase 5: Providing Feedback to Trainees in the Practice Section

The trainer will take notes and provide feedback to the trainees during the practice session, on items such as whether she is giving enough time to participants, whether she is influencing participants' opinion by her words, etc.

Phase 6: Retraining the Trainees for More Practice

The trainer will practice administering the instrument with the trainee twice in order to make her very familiar with the procedures.

APPENDIX D
Frequency and Percentage for Each of 28 Items of MTAI

Subscale/Item	Level	Frequency	Percentage
Core Perspectives			
1.Students with special needs have the right to be educated in the same classroom as typically developing students.	Strongly Agree	110	45.8
	Agree	122	50.8
	Disagree	7	2.9
	Strongly Disagree	1	0.4
2.Inclusion is NOT a desirable practice for educating most typically developing students.	Strongly Agree	9	3.8
	Agree	119	49.6
	Disagree	105	43.8
	Strongly Disagree	5	2.1
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.	Strongly Agree	4	1.7
	Agree	73	30.4
	Disagree	120	50.0
	Strongly Disagree	43	17.9
4.Children with exceptional education needs should be given every opportunity to function in an integrated classroom.	Strongly Agree	83	34.6
	Agree	150	62.5
	Disagree	7	2.9
	Strongly Disagree	0	0
5.Inclusion can be beneficial for parents of children with exceptional education needs.	Strongly Agree	51	21.3
	Agree	151	62.9
	Disagree	35	14.6
	Strongly Disagree	1	0.4
6.Parents of children with exceptional needs prefer to have their child placed in an inclusive classroom setting.	Strongly Agree	32	13.3
	Agree	157	65.4
	Disagree	44	18.3
	Strongly Disagree	6	2.5
7. Most special education teachers lack an appropriate knowledge base to educate typically developing students effectively.	Strongly Agree	8	3.3
	Agree	110	45.8
	Disagree	98	40.8
	Strongly Disagree	22	9.2
8. The individual needs of children with disabilities CANNOT be addressed adequately by a regular education teacher.	Strongly Agree	6	2.5
	Agree	57	23.8
	Disagree	133	55.4
	Strongly Disagree	42	17.5
9. We must learn more about the effects of inclusive classrooms before inclusive classroom take place on a large scale basis.	Strongly Agree	0	0
	Agree	5	2.1
	Disagree	126	52.5
	Strongly Disagree	108	45.0

10. The best way to begin educating children in inclusive setting is just to do it.	Strongly Agree	21	8.8
	Agree	96	40.0
	Disagree	110	45.8
	Strongly Disagree	13	5.4
11. Most children with exceptional needs are well behaved in integrated education classrooms.	Strongly Agree	8	3.3
	Agree	95	39.6
	Disagree	122	50.8
	Strongly Disagree	12	5.0
12. IT is feasible to teach children with average abilities and exceptional needs in the same classroom.	Strongly Agree	35	14.6
	Agree	138	57.5
	Disagree	59	24.6
	Strongly Disagree	8	3.3
Expected Outcomes			
13. Inclusion is socially advantageous for children with special needs.	Strongly Agree	54	22.5
	Agree	166	69.2
	Disagree	19	7.9
	Strongly Disagree	1	0.4
14. Children with special needs will probably develop academic skills more rapidly in a special, separate classroom than in an integrated classroom.	Strongly Agree	14	5.8
	Agree	98	40.8
	Disagree	106	44.2
	Strongly Disagree	21	8.8
15. Children with exceptional needs are likely to be isolated by typically developing students in inclusive classrooms.	Strongly Agree	8	3.3
	Agree	81	33.8
	Disagree	114	47.5
	Strongly Disagree	35	14.6
16. The presence of children with exceptional education needs promotes acceptance of individual difference on the part of typically developing students.	Strongly Agree	31	12.9
	Agree	144	60.0
	Disagree	59	24.6
	Strongly Disagree	6	2.5
17. Inclusion promotes social independence among children with special needs.	Strongly Agree	37	15.4
	Agree	142	59.2
	Disagree	60	25.0
	Strongly Disagree	1	0.4
18. Inclusion promotes self-esteem among children with special needs.	Strongly Agree	39	16.3
	Agree	147	61.3
	Disagree	51	21.3
	Strongly Disagree	3	1.3

19. Children with exceptional needs are likely to exhibit more challenging behaviors in an integrated classroom setting.	Strongly Agree	1	0.4
	Agree	74	30.8
	Disagree	136	56.7
	Strongly Disagree	27	11.3
20. Children with special needs in inclusive classrooms develop a better self-concept than in a self-contained classroom.	Strongly Agree	31	12.9
	Agree	147	61.3
	Disagree	60	25.0
	Strongly Disagree	1	0.4
21. The challenge of a regular education classroom promotes academic growth among children with exceptional education needs.	Strongly Agree	31	12.9
	Agree	130	54.2
	Disagree	71	29.6
	Strongly Disagree	5	2.1
22. Isolation in a special class does NOT have a negative effect on the social and emotional development of students prior to middle school.	Strongly Agree	32	13.3
	Agree	127	52.9
	Disagree	76	31.7
	Strongly Disagree	3	1.3
23. Typically developing students in inclusive classrooms are more likely to exhibit challenging behaviors learned from children with special needs.	Strongly Agree	15	6.3
	Agree	128	53.3
	Disagree	83	34.6
	Strongly Disagree	12	5.0
Classroom Practices			
24. Children with exceptional needs monopolize teachers' time.	Strongly Agree	11	4.6
	Agree	123	51.3
	Disagree	76	31.7
	Strongly Disagree	27	11.3
25. The behaviors of students with special needs require significantly more teacher-directed attention than those of typically developing children.	Strongly Agree	0	0
	Agree	18	7.5
	Disagree	125	52.1
	Strongly Disagree	95	39.6
26. Parents of children with exceptional education needs require more supportive services from teachers than parents of typically developing children.	Strongly Agree	1	0.4
	Agree	10	4.2
	Disagree	120	50.0
	Strongly Disagree	106	44.2
27. Parents of children with exceptional needs present no greater challenge for a classroom teacher than do parents of a regular education student.	Strongly Agree	57	23.8
	Agree	132	55.0
	Disagree	37	15.4
	Strongly Disagree	11	4.6

28. A good approach to managing inclusive classroom is to have a special education teacher be responsible for instructing the children with special needs.	Strongly Agree	6	2.5
	Agree	83	34.6
	Disagree	99	41.3
	Strongly Disagree	50	20.8

VITA

Donghua Gu

EDUCATION

PhD The Pennsylvania State University, Curriculum & Instruction, 2009

BA Nanjing Normal University, Nanjing, China, English Language, 2001

AA Sanjiang College, Nanjing, China, Foreign Trade English, 1997

TEACHING EXPERIENCE

Chinese Language Instructor, March 2006-December 2008

The Pennsylvania State University, University Park, PA, USA

Group Leader, August 2005

Children's Institute of 2005 National Autism Conference, PA, USA

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Park Forest Montessori School, State College, PA, USA

CONFERENCE PRESENTATION

- Gu, Donghua (March, 2008). *Early Education Providers' Perceptions and Views of Inclusion in China*. Harvard Student Research Conference. Boston, MA.

PROFESSIONAL SOCIETY

- American Educational Research Association
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