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**RESEARCH ON THE CONSTRUCTION OF SUPPORTING SYSTEMS FOR
INCLUDING CHILDREN WITH AUTISM SPECTRUM DISORDERS IN
PRESCHOOL CLASSROOMS**

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Declaration of Originality

I, PENG Yuntong (Student ID Number 80052170) declare that this dissertation entitled “Research on the Construction of Supporting Systems for Including Children with Autism Spectrum Disorders in Preschool Classrooms” submitted as partial requirement for Ph.D. study program of Special Education is my original work and that all the sources in any form (e.g. ideas, figures, texts, tables, etc.) that I have used or quoted have been indicated and acknowledged in the text as well as in the list of reference.

Signature

Date

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Abstract

Inclusive education, characterized by its emphasis on human rights and educational equity, has become a trend in many countries. Great efforts have been made to ensure the educational rights of children with special educational needs and to promote the implementation of inclusive education. Supports, which are tailored to meet the needs of every individual child, are indispensable elements in inclusive practice. A well-constructed system of supports can help students to reach their potential and to succeed in regular schools.

Focused on supporting systems for preschool inclusion of children with ASD, the research is aimed at exploring the supporting systems for preschool inclusion of children with ASD in China, and therefore to contribute to the improvement of the quality of preschool inclusive education. The researcher adopted a qualitative paradigm, and collected data through interview, observation, and examination of physical items. Grounded theory approach was applied to analyze the qualitative data, and to develop theories that can further interpret the reality and offer new insights into the practice of supporting systems construction.

Based on the data collected, the researcher summarized the current situation of children with ASD in regular classrooms, and outlined the structure of the current supporting systems. The socio-ecosystem of the children with ASD in the inclusive context consisted of the inclusive classroom, the kindergarten, the family, institutions, the resource center, hospitals, government and the society; persons involved in the systems provided direct or indirect supports for the children. The supports providers included preschool teachers, childcare workers, parents, peers, directors of the kindergartens, resource center teachers, other professionals, doctors and so on. The roles played by different support providers were presented.

The interaction between different support providers forms a network within the support systems. The collaboration between support providers varies in term of ways of communication, frequencies of collaboration, content/ways of collaboration, and effectiveness of the collaboration. The collaboration between main support providers

was further elaborated.

Having illustrated the current supporting systems for including children with ASD, barriers and facilitators which were found in the current supporting systems were discussed. The barriers included: (1) loose internal structure of the supporting systems, (2) insufficient collaboration between different supports providers, (3) lack of services integrated within routines in kindergartens, (4) insufficient preparation for inclusion from the kindergartens, and the (5) lack of mechanisms to underpin the implementation of inclusion. The facilitators comprised: (1) straightforward and open attitudes during collaboration, (2) personal relationship between support providers, (3) successful experience of including children with ASD, and (4) well-organized internal structure of family systems.

In the final part, recommendations have been proposed, including: (1) establishment of referral systems, (2) regularization of the functioning of resource centers, (3) pre-service and in-service teachers training, (4) intervention for parents of children with ASD, (5) further development of regulations and policies, and (6) promotion of inclusive education in the public. These strategies were aimed at optimizing the construction of supporting systems so as to improve the inclusive practice for children with ASD.

Key words: preschool inclusion, inclusive education, support, supporting system, autism spectrum disorders

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1 INTRODUCTION

It was the Open Day for parents. Four parents came to the kindergarten and would spend the whole morning with the class. CC's mother also came on that day.

CC was diagnosed with Asperger's syndrome and was studying in the bottom class (the first year in the kindergarten). There were 26 children in the classroom. CC had already gotten used to the life in the kindergarten. He was very interested in all the toys and other things in the environment, especially those which were round in shape, like ocean balls, Ping-Pong balls, and so on. Sometimes, he could also find his own interesting games that he could play all by himself.

Art lesson

It was the art lesson in the functional room for arts activities. The children were sitting around three large tables. The teacher was telling a story about a small rabbit and mushrooms. "This very cute rabbit is trying to find a mushroom, and to use it as an umbrella", said the teacher. The children were all attracted by the story and pictures, except for CC. He was playing an ocean ball and spitting around. Besides, he frequently left the seat and was distracted by different things in the room. Every time the childcare worker and the other teacher had to take him back to his seat. The childcare worker stood next to him and reminded him to look at what the teacher was doing. It seemed not working.

Later, the teacher tried to teach the children to make mushrooms with colorful modeling clay. The teacher made one as a model and then encouraged the children to make their own mushrooms. However, CC did not get the teacher's requirement. His mother entered the room and helped him make the mushroom together. CC was not interested in making mushrooms, but was interested in smelling the clay.

Corner time

When came to the corner free-play time, other children chose their favorite corner and started to play games. However, CC was playing the ocean balls in the other room (napping room) alone. His mother and the childcare worker asked him to go to the classroom to play corner games, but he insisted to stay alone. When the childcare worker asked why, he said, “don’t want”. The childcare worker suggested watching cartoons, but he replied: “watch ocean balls”.

Outdoor exercise

During outdoor exercise time, the teachers organized different physical exercises. Following the rhythm of music, children were imitating the teachers’ movement. CC, however, was totally attracted by the Ping-Pong balls in the boxes hanging on the wall. He did not follow the teachers’ instructions, and constantly ran to the wall to get the ball.

His mother dragged him back to the group and led him to join the game that other children were playing, but it seemed that CC did not understand the rules of the game. When he was following others’ movement, he was still holding the Ping-Pong ball in his hand.

Lunch Time

During the lunchtime, CC ate by himself at first. However, after several minutes, he refused to eat by himself and asked for feeding. Then one of the teachers came to feed him and later his mother took it over.

After lunchtime, CC left the kindergarten with his mother. He had to go to the institution for training in the afternoon.

In China, there are many children like CC. They are included in regular classrooms in kindergartens and have special educational needs. How the environment is supporting the children is an important question to answer.

1.1 Raise of the question

In the past, special education was worldwide provided in a segregated way, that is, to provide training and education in separated places with specialized tools and methods. People adopted a medical-psychological model of disability, and more focused on the pathology and defects of people with disabilities (Buntinx & Schalock, 2010). However, with the development of human civilization, people placed more emphasis on human rights and started to ask whether people with disabilities had been treated with respect. In the 1960s, the principle of “normalization” was proposed in Scandinavia, and people realized that people with disabilities have the right to live in ways as normal as possible, just like the way in which every one else lives. Thus, the model of disability has been shifted to a socio-political model which emphasis the rights of people with disabilities and the services should be provided for them. Later on, “integrated education” and “mainstreaming” emerged in response to the advocacy of educational rights of people with disabilities. In 1990, the World Conference on Education for All was convened in Thailand, and in the conference, the *World Declaration on Education for All* was adopted to reaffirm that education is a fundamental human right and every person should be able to benefit from educational opportunities. Four years later, in the *Salamanca Statement* issued at the World Conference on Special Needs Education, “**inclusion**” was proposed as a critical concept as well as an approach that enables schools to serve all children, especially those with special educational needs (SEN). People proclaimed that “every child has a fundamental right to education, and must be given the opportunity to achieve and maintain an acceptable level of learning” (UNESCO, 1994, p. viii), and that “those with special educational needs must have access to regular schools which should accommodate them within a childcentred pedagogy capable of meeting these needs” (UNESCO, 1994, p. viii).

Over two decades have passed by. Today, inclusive education has become a trend in many countries. Great efforts have been made to ensure the educational rights of children with SEN and to ensure the implementation of inclusive education. At the

World Education Forum held in Korea in May 2015, a renewed education agenda, the *Education 2030 Incheon Declaration*, was adopted, and the Education 2030 Framework for Action (FFA) was later launched at the 38th UNESCO General Conference in November 2015 to guide the implementation of the new agenda. In the 2030 agenda, equity and inclusion have been proposed as major goals. According to the FFA, “inclusive education for all should be ensured by designing and implementing transformative public policies to respond to learners’ diversity and needs, and to address the multiple forms of discrimination and of situations, including emergencies, which impede the fulfilment of the right to education” (UNESCO et al., 2015, p. 6).

Preschool inclusion is also an important part of inclusive education. It has provided young children with SEN with the opportunities to be included at a very young age, and has offered natural and realistic learning experiences for children. It is beneficial for both children with special educational needs and typically developing children. For children with SEN, 0-7 years of age is a pivotal period of their physical and psychological development. During this period, early intervention, especially in the context of inclusive education, can significantly promote children’s intellectual development, behavior, language and social interaction, and can also lay a good foundation for them to participate in social life in the future (Guralnick, Connor, Hammond, Gottman, & Kinnish, 1996; Hundert, Mahoney, Mundy, & Vernon, 1998; Rafferty, Piscitelli, & Boettcher, 2003). For typically developing children, they can gain positive experiences as well. By helping children with special needs, they enhance their sense of self-efficacy and self-awareness; by interacting with children with special needs, they will try to understand special children’s behavior and explore their ideas, thus to facilitate their development of empathy and pro-social behaviors (Diamond & Hestenes, 1996; Peck, Carlson & Helmstetter, 1992; Zhou, 2008).

The international trend of inclusive education has a great impact on China’s education field. The Chinese government is endeavoring to promote inclusive education, including at the preschool stage. Laws and policies have been issued to ensure the implementation of inclusive education. According to the *People with*

Disabilities Education Ordinance (State Council of PRC, 1994), ordinary institutions of preschool education are among the institutions that shall provide preschool education for children with disabilities. The *Law of the People's Republic of China on the Protection of Disabled Persons* (National People's Congress of PRC, 2008) provides that ordinary institutions of preschool education shall admit disabled children who are able to adapt themselves to the life there. In 2013, the *Special Education Promotion Plan (2014 – 2016)* (Ministry of Education et al., 2013) was released to further ensure the disabled persons' right to education. According to the plan, local governments should integrate preschool education for children with disabilities into their schedule of education development, and should provide support for regular kindergartens to accept children with disabilities. Therefore, in China, although it is not compulsory for regular kindergartens to accept children with disabilities, with the advocacy of inclusive education, the last decade has still witnessed an increasing number of children with SEN enrolled in regular preschool education institutions (Li, 2011; Sun, 2007; Zhu, 2008).

Inclusion brings about great opportunities to realize educational equity for children with special educational needs; however, it also poses challenges. People are confronted with various types of barriers that hinder the implementation of preschool inclusive education, and there are still many issues which remain in question. Does every child with SEN have access to educational opportunities as other children? Are children with SEN merely physically included or also socially included? Physical placement of children with SEN in general classrooms is not in itself sufficient to enact the principle of inclusion, and it does not stand for the whole concept of inclusion. Inclusive education emphasizes a “childcentred pedagogy” (UNESCO, 1994, p. viii), so appropriate **supports** should be tailored to meet the needs of every individual child. A well-constructed system of supports can largely improve the practice of inclusive education, and can help all students to reach their potential and to succeed in regular schools.

Due to the fast growing incidence rate, children with Autism Spectrum Disorders (ASD) have gained much attention in recent years. According to the latest data

released by Centers for Disease Control and Prevention in the United States, the estimated number of children identified with ASD continues to increase; compared to the estimates in 2006 (1 in 110) and 2008 (1 in 88), the new estimate increased to 1 in 68, which means about one in 68 children (or 14.7 per 1,000 8 year olds) were identified with ASD in the 11 communities they surveyed (Centers for Disease Control and Prevention, 2014). As a result, there will be a bigger chance for preschool teachers to encounter children with ASD in their classrooms, and the inclusive education of children with ASD has become a topic under heated discussion. **Therefore**, focused on preschool inclusion of children with ASD, the current research adopted a qualitative approach to explore the construction of supporting systems for preschool inclusion of children with ASD in China, aiming to contribute to the improvement of the preschool inclusive education practice.

1.2 Purpose of the research

The **aim** of the study is to explore the construction of supporting system for preschool inclusion of children with ASD in China, and to contribute to the improvement of the preschool inclusive education practice.

The specific **objectives** of the study include:

- (1) to analyze the structure of the supporting system constructed for children with ASD in early childhood inclusive settings,
- (2) to figure out the functions of each elements of the supporting system,
- (3) to examine the overall functioning of the supporting systems,
- (4) to analyze the barriers to implementing a well-structured supporting systems,
- (5) to propose a theoretically based and practical model of supporting system construction for including children with ASD in preschool classrooms.

1.3 Research questions

Based on the topic of the study, the research is supposed to answer the following questions related to the construction of supporting system for preschool inclusion of

children with ASD in China:

Question 1: What supports do the children with ASD in inclusive classrooms need?

Question 2: What are the structures of the supporting systems constructed for children with ASD in real-life preschool inclusive settings like?

Question 3: What are the functions of each elements of the supporting system for children with ASD in real-life preschool inclusive settings?

Question 4: How are the systems supporting the children with ASD?

Question 5: What are the barriers to implementing a well-structured supporting system?

Question 6: What should a theoretically based and practical model of supporting system be like for including children with ASD in preschool classrooms?

1.4 Definition of terms

1.1.1 Inclusive education

As for the definition of *inclusion*, it is still under debate. There is no consensual definition of inclusion. Some focus on the rights of persons with special educational needs; some focus on values; some others may emphasize schools' responsibility to meet diverse educational needs (Winter & O'Raw, 2010). Simply speaking, inclusive education refers to educating students with disabilities in general education classrooms (Heward, 2013). However, it does not merely mean physically including students with SEN in general education classrooms; it emphasizes the right of students with SEN to participate into mainstream life, to access to the same learning opportunities with other students; it also emphasizes the schools' responsibility to provide supports for students from diverse groups and to meet students' special educational needs. Booth and Ainscow (2011) summarized some key characteristics of inclusion: putting inclusive values into action, viewing every life and every death as of equal worth, supporting everyone to feel that they belong, increasing participation for children and adults in learning and teaching activities, relationships

and communities of local schools, improving schools for staff and parents/carers as well as children, fostering mutually sustaining relationships between schools and surrounding communities, and so on and so forth.

In the current study, the researcher adopted the definition of “inclusive education” from the *Guidelines for inclusion: Ensuring access to Education for All* issued by UNESCO in 2005.

“Inclusion is seen as a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures and communities, and reducing exclusion within and from education. It involves changes and modifications in content, approaches, structures and strategies, with a common vision which covers all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate all children.” (UNESCO, 2005, p.13).

1.4.1 Preschool inclusive education

Due to the debate about the definition of inclusion, there are also difficulties in defining preschool inclusive education. Before addressing the definition of preschool inclusive education, a relevant concept “*early childhood inclusion*” will be discussed.

In order to establish a common understanding of what inclusion means and so as to help achieve high quality inclusion, Division for Early Childhood (DEC) and the National Association for the Education of Young Children (NAEYC) made a joint position statement in 2009, and offered a definition of early childhood inclusion as follows:

“Early childhood inclusion embodies the values, policies, and practices that support the right of every infant and young child and his or her family, regardless of ability, to participate in a broad range of activities and contexts as full members of families, communities, and society. The desired results of inclusive experiences for children with and without disabilities and their families include a sense of belonging and membership, positive social relationships and friendships, and development and learning to reach their

full potential. The defining features of inclusion that can be used to identify high quality early childhood programs and services are access, participation, and supports.” (DEC & NAEYC, 2009, p. 2)

The current study is limited to “preschool” education settings in China. In China, preschool education usually is provided by public or private kindergartens for children from 3 years old to 7 years old. Therefore, the key term “preschool inclusive education” or “preschool inclusion” in this study refers to inclusion of preschool-age children (3-7 years old) with SEN in classrooms with their typically developing peers. It has the same defining characteristics with that of early childhood inclusion, but the major difference is the age group of the children involved. Besides, preschool inclusive education in the current study is also more focused on educational inclusion.

1.4.2 Supports

The concept of “supports”, initially proposed by American Association on Intellectual and Developmental Disabilities (Formerly AAMR) in 1992, refers to resources and strategies that are used to promote the development, education, interests, and personal well-being of a person and that enhance individual functioning (AAIDD, 2010). The supports might include individuals, agencies, money or tangible assets, assistive devices, or environments, and can be provided by parents, friends, teachers, psychologists, doctors, or by any appropriate persons or agencies (AAIDD, 2013).

In inclusive settings, support “includes everything that enables learners to learn” and “particularly includes those resources which supplement what the regular class teacher can provide” (UNESCO, 2001, p. 71). The most important form of support is from regular daily resources available at every school, such as peers, teachers, partners, and communities; and there will also be other supports from resource centers and other professionals and so on (UNESCO, 2001).

In the current study, the focus is placed on the educational inclusion of children with ASD. In this respect, the term “support” is defined as “resources and strategies that aim to improve the individual functioning of children with ASD in inclusive

preschool education settings, and therefore to improve children’s personal outcomes”.

1.4.3 Supporting systems

AAIDD advocates a “systems of supports model” because human functioning is multidimensional and influenced by various elements. A “systems of supports” refers to “planned and integrated use of individualized support strategies and resources that encompass the multiple aspects of human performance in multiple settings” (AAIDD, 2010). It emphasizes an overall organization of all elements that influence human performance. UNESCO (2001) also pointed out that supports should be organized and integrated into a holistic system, and that service providers should collaborate with each other.

Based on the purpose of the study, the “supporting system” in the study is limited to ones that promote the inclusion of children with ASD in preschool educational settings. Therefore, in this research, the term “supporting system” is defined as “a planned and integrated organization of individualized support strategies and resources that address multiple aspects of human performance to help the inclusion of children with ASD in preschool educational settings, such as kindergartens and child care centers, and thus to improve children’s personal outcomes”. The systems are supposed to minimize the mismatch of personal competence of children with ASD and the environmental demands, and to enhance the children’s functioning in preschool inclusive settings.

1.4.4 Autism spectrum disorders

The current research adopted the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM-V; American Psychiatric Association, 2013) diagnostic criteria for defining ASD as illustrated in the table below.

Table 1.1 DSM-5 Criteria for ASD

A. Persistent deficits in social communication and social interaction across contexts, not accounted for by general developmental delays, and manifest by all 3 of 3 symptoms:

A1. Deficits in social-emotional reciprocity; ranging from abnormal social approach and failure of normal back and forth conversation through reduced sharing of interests, emotions, and affect and response to total lack of initiation of social interaction.

A2. Deficits in nonverbal communicative behaviors used for social interaction; ranging from poorly integrated verbal and nonverbal communication, through abnormalities in eye contact and body language, or deficits in understanding and use of nonverbal communication, to total lack of facial expression or gestures.

A3. Deficits in developing and maintaining relationships, appropriate to developmental level (beyond those with caregivers); ranging from difficulties adjusting behavior to suit different social contexts through difficulties in sharing imaginative play and in making friends to an apparent absence of interest in people.

B. Restricted, repetitive patterns of behavior, interests, or activities as manifested by at least 2 of 4 symptoms:

B1. Stereotyped or repetitive speech, motor movements, or use of objects; (such as simple motor stereotypies, echolalia, repetitive use of objects, or idiosyncratic phrases).

B2. Excessive adherence to routines, ritualized patterns of verbal or nonverbal behavior, or excessive resistance to change; (such as motoric rituals, insistence on same route or food, repetitive questioning or extreme distress at small changes).

B3. Highly restricted, fixated interests that are abnormal in intensity or focus; (such as strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests).

B4. Hyper-or hypo-reactivity to sensory input or unusual interest in sensory aspects of environment; (such as apparent indifference to pain/heat/cold, adverse response to specific sounds or textures, excessive smelling or touching of objects, fascination with lights or spinning objects).

C. Symptoms must be present in early childhood (but may not become fully manifest until social demands exceed limited capacities).

D. Symptoms together limit and impair everyday functioning.

1.5 Outline of the dissertation

In this dissertation, there are six chapters. Chapter 1 mainly introduces the background of the research, the aims and research questions, and defines important terms in the research. Chapter 2 reviews relevant literature, mainly focusing on inclusive education, inclusion of children with ASD, and support systems in inclusive settings. Chapter 3 describes the methodology of the research. Results of the inquiries are presented in Chapter 4. Categories and subcategories are described and have been organized to answer the questions proposed in Chapter 1. In Chapter 5, main findings are discussed based on the research results, and recommendations for the preschool inclusive practices have been further brought forward. Chapter 6 includes the conclusion of this qualitative inquiry together with the limitations of the research.

2 LITERATURE REVIEW

2.1 Overview

The researcher mainly applied subject index searching, citation searching, and footnote chasing and browsing strategies to search for relevant literature. The researcher first used subject index searching in different search engines to find articles, and then browsed all the results found to select the most relevant studies. EBSCO Host, Educational Resources Information Center (ERIC), Proquest Dissertation and Theses, Springer Link, Google Scholar and China National Knowledge Infrastructure (CNKI) are major search engines that were employed. In addition, reference lists and citations of the most relevant articles were also scanned to trace other relevant studies.

The search for articles on the construction of supporting system for preschool inclusion of children with ASD uncovered a very limited number of articles. However, there are a considerable number of studies on inclusive education of children with ASD. Therefore, in order to provide the background and rationale for the study, the literature review covers the following five aspects: inclusive education and preschool inclusion, inclusive education in China, children with ASD, inclusion of children with ASD, and support systems in inclusive settings.

2.2 Inclusive education and preschool inclusion

2.2.1 *Inclusive education*

Based on the belief that the right to education is a basic human right, inclusive education is a product of the pursuance for educational equality and a more just society (UNESCO, 2001). It is proposed in the *Salamanca Statement* issued in 1994: “those with special educational needs must have access to regular schools which should accommodate them within a childcentred pedagogy capable of meeting these needs” (UNESCO, 1994, p. viii). It is “a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures

and communities, and reducing exclusion within and from education” (UNESCO, 2005, p.13).

Over 20 years later, however, it is still a topic under heated discussion and of great controversy. For some people, inclusive education means “*full inclusion*”; for others, it means any degree of integration into the mainstream classrooms (Heward, 2013). Between these two standpoints, most people support the latter, to keep the continuum of alternative placements (Heward, 2013).

Meanwhile, there are also divergent opinions about the effectiveness and the outcomes of inclusion. On the one hand, proponents of inclusive education argue that inclusion has a strong legal, rational, moral, and empirical basis (Bailey, McWilliam, Buysse, & Wesley, 1998). Evidence of positive outcomes has mainly been found in social and academic development of children with SEN (Baker, Wang, & Walberg, 1995; Moore, Gilbreath, & Maiuri, 1998; Rea, McLaughlin, & Walther-Thomas, 2002). Rea et al. (2002) compared the outcomes of two groups of 8th grade students with learning disabilities studying either in inclusive programs or pullout programs. The results showed that students in inclusive programs had better academic achievement, higher school attendance rate and less behavioral infractions (Rea et al., 2002). On the other, however, mixed or even negative outcomes were revealed by some research results (Gutierrez Jr, Hale, Gossens-Archuleta, & Sobrino-Sanchez, 2007; Karsten, Peetsma, Roeleveld, & Vergeer, 2001; Monchy, Pijl, & Zandberg, 2004; Reed, Osborne & Waddington, 2012). There are still some people questioning whether the general classroom can provide specialized instructions and other services needed by the students with SEN (Ferguson, 2008; Duhaney & Salend, 2000).

As stated by Winter and O’Raw (2010), the research into inclusive education practice “is fraught with problems due to the lack of an operational definition of inclusion and methodological difficulties concerning non-comparability of samples receiving different types of education and in different types of inclusive contexts”(p. 22). There are many other factors influencing the outcomes of students’ performance, apart from the placement itself; there are no clear-cut advantages or disadvantages (Hegarty, 1993). With the fundamental human rights as the most important rationale

for inclusion, some researchers argue that our focus should be shifted to the question *how* we improve the inclusive practice (Reed, Osborne & Waddington, 2012; Thomas, Walker, & Webb, 1998).

2.2.2 *Preschool inclusive education*

Preschool inclusive education refers to including preschool-age children with SEN in classrooms with their typically developing peers. It ensures that young children with SEN can enjoy the same learning environment as their peers do, and provides the opportunities for children with SEN to interact with typically developing peers at a very young age. It acknowledges the notion that young children with disabilities and their families are full members of the community, and places an emphasis on the opportunities for developing and learning, and sense of belonging for each child (DEC & NAEYC, 2009).

Much research has been conducted in respect of preschool inclusion. There are research results indicate that preschool inclusive education is beneficial for intellectual development, behavior, language and social interaction of children with SEN (Erwin, 1993; Guralnick, Connor, Hammond, Gottman, & Kinnish. 1996; Rafferty, Piscitelli, & Boettcher, 2003). Guralnick et al. (1996) examined the immediate effects of mainstream settings on social interaction and social integration of preschool children with developmental delays. According to the research, compared with specialized settings, children with and without developmental delays exhibited higher levels of interaction with each other in mainstream settings, but children with developmental delays were still not fully accepted or integrated in mainstream settings (Guralnick et al., 1996). Rafferty et al. (2003) compared the language ability and social competence of two groups of preschoolers with disabilities, with one group of 68 children attending inclusive classrooms, 28 in segregated classrooms; the results indicated that preschoolers with less severe disabilities did not make greater gains in inclusive settings and that children with more severe disabilities had greater language development and social skills, as well as more problems behaviors. There are also positive outcomes reported by parents, in terms of the

general development, the social skills and relationships of children with SEN (Bennett, Deluca, & Bruns, 1997; Guralnick, Connor, & Hammond, 1995; Miller, Strain, Boyd, Hunsicker, McKinley, & Wu, 1992).

For typically developing children, there are also positive outcomes found by some research (Diamond & Hestenes, 1996; Peck, Carlson, & Helmstetter, 1992; Zhou, 2008). Peck, Carlson and Helmstetter (1992) surveyed 125 parents and 95 teachers who were involved in preschool inclusive programs about their perceptions of the program outcomes for typically developing children. According to the results of the survey, the inclusive programs were considered beneficial for the development of typically developing children's social cognition, pro-social personal characteristics, and acceptance of human diversity, and the concern about reduced teacher attention to normally developing children was not considered as a problem (Peck, Carlson, & Helmstetter, 1992).

However, it is not easy to provide quality education for children with SEN in inclusive settings. Odom (2000) pointed out that the quality of inclusion had two dimensions: the quality of the early childhood setting and the nature of the program for children with SEN. It is affected by various factors such as program philosophy, administrative support, resources, collaboration among professionals, opportunities for family choice, interactions between teachers and children and so on (Odom, 2000). Further efforts should be made to ensure that every child with SEN can benefit from the preschool inclusive programs.

2.3 Inclusive education in China

2.3.1 “*Sui ban jiu du*” and inclusive education in China

In China, the early experiments of accepting children with disabilities in regular education classrooms were conducted in the 1980s, with the aim of ensuring the provision of education for students with disabilities. The practice is called “*sui ban jiu du*” (Learning in Regular Classrooms, LRC), which is more widely used in government documents. It has common characteristics with inclusive education, but

also differences. It is a policy which was developed to solve local education problems in China. The policy does not aim at deconstructing existing special education schools entirely, but emphasizes that special education schools provide support as resource centers to regular education schools (Malinen, 2013).

As for the term “inclusive education”, with the international trend of inclusive practice, it has been known by more and more people in China. It is more used in academic circle and now is disseminated to wider public. Some scholars make a distinction between *sui ban jiu du* and inclusive education, while others use the two terms interchangeably, especially in international academic exchange settings (Malinen, 2013).

Currently, the Chinese practice of *sui ban jiu du* has been increasingly influenced by the international trend of inclusion. People have realized that students with SEN are not only limited to students with hearing, visual or intellectual disabilities as covered in *sui ban jiu du* documents, and that the subjects of inclusive education cover a wider group of students as long as they have special educational needs. With more and more international exchange, *sui ban jiu du* has absorbed experiences from inclusive education and has become part of this international campaign. Therefore, in the current study, the practice of accepting students with SEN in regular classrooms in China is considered as inclusive education.

2.3.2 Preschool inclusion in China

In China, laws, regulations and policies advocate and provide supports for inclusive education. The early practice of inclusive education was mainly conducted at compulsory education stages, and with about 30 years’ exploration, the inclusive practice has been extended from compulsory education to preschool and tertiary education. According to the *Special Education Promotion Plan (2014 – 2016)* (Ministry of Education et al., 2013), the development of preschool education should be included into the schedule of education development of local government, and the government should provide support for regular kindergartens to accept children with disabilities.

Since the late 1990s, there have been early practices to include children with SEN in regular kindergartens in some areas in China, especially in developed cities such as Beijing and Shanghai (Hu & Szente, 2010). During the last decade, more and more children with SEN were admitted into regular kindergartens. According to an investigation conducted in Hubei province, 66.9% of the 174 preschool workers surveyed had the experience of teaching children with special educational needs (Sun, 2007). In Zhejiang province, 58% of 566 preschool teachers from regular kindergartens claimed that they had encountered children with SEN (Zhu, 2008); in the same province in 2011, another research showed that over two thirds of the 275 preschool teachers surveyed had met children with SEN in their work (Li, 2011).

With the development of inclusive education, people have realized the value and the potential benefits it brings. There is also more research focused on preschool inclusion in China. Those studies mainly consist of surveys of teachers' and parents' attitude toward preschool inclusion, investigation of teachers' competence, investigation of the status quo of preschool inclusion, case studies of preschool inclusive education, and theoretical exploration on teachers' training in the context of preschool inclusion and so on.

However, Chinese people are also faced by many challenges. Hu and Szente (2010) summarized some challenges from legislative, economic and cultural aspects: (1) although the legislation advocates inclusive education, it failed to provide guidelines for implementation; (2) the limited funding for early childhood education also restricted the development of preschool inclusion; (3) the social stigma toward people with disabilities still exists and impedes the progress of inclusion. Meanwhile, the large population of students with disabilities also poses a great challenge, because there are insufficient number of competent teachers trained in providing services for students with SEN and there are limited resources to support the inclusive practices.

2.4 Children with ASD

2.4.1 *Autism and Autism Spectrum Disorders*

In 1943, Leo Kanner reported 11 cases of children “whose condition differs so markedly and uniquely from anything reported so far” (Kanner, 1943, p.217). He pointed out that all the 11 children had several important common characteristics such as the “inability to relate themselves in the ordinary way to people and situations from the beginning of life”(Kanner, 1943, p.242). He argued that the condition the 11 children had was different from schizophrenia, but an inborn autistic disturbances of affective contact (Kanner, 1943). Just one year later, Hans Asperger, a pediatrician in Vienna, described a group of children and adolescents with good language skills, often above-average to superior intelligence, naïve and inappropriate social behavior and odd intonation and body language, and called these conditions *autistic psychopathology* (Heward, 2012). Since then, autism was named as a unique condition.

Diagnostic and Statistical Manual of Mental Disorders is a classification of mental disorders used by mental health professionals in the United States. In the previous version, *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; DSM-IV-TR; American Psychiatric Association, 2000), autism, along with Asperger’s disorder, childhood disintegrative disorder (CDD), Rett’s disorder and pervasive developmental disorder not otherwise specified (PDD-NOS), are all categorized as pervasive developmental disorders (PDD). The diagnostic criteria are based on a classification system that tries to organize psychological symptoms into syndromes.

In 2013, the latest version of the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM-V; American Psychiatric Association, 2013) was released, and in this new version, important changes have been made to the diagnosis of autism spectrum disorders. Rett’s syndrome and CDD are no longer defined as a specific ASD; autistic disorder, Asperger’s and PDD-NOS are merged into a single diagnosis; the previous three symptom domains have been changed into two domains with three

different levels of severity. The use of a single umbrella disorder reflects a continuum model in the diagnosis (Nolen-Hoeksema, 2011).

2.4.2 Characteristics of children with ASD

As illustrated in the DSM-5, children with ASD have different levels of deficits in social interaction and social communication, and also exhibit restricted, repetitive patterns of behavior, interests, or activities. Research indicates that the cognitive abilities of children with ASD represent a broad range of functioning levels (Coolican, Bryson, & Zwaigenbaum, 2008). Some children with ASD also have problem behaviors such as property destruction, aggression, and even self-injury, which can cause family dysfunction and obstacles for their inclusion in general education classrooms (Heward, 2012). Besides, the individual differences within the group of children with ASD are evident.

As for the etiology and treatment, current studies have found that biological, neurological, and neurotransmitter factors are involved as the contributors to ASD (Nolen-Hoeksema, 2011; Wilmshurst, 2005). Therefore, drug therapies are applied to reduce certain symptoms such as overactivity, sleep disturbances, and tension and so on, but drugs cannot change the basic disorder (Nolen-Hoeksema, 2011). Psychosocial therapies combined with behavioral techniques and structured educational services have gained much attention, and there are various options (Nolen-Hoeksema, 2011).

2.5 Inclusive education of children with ASD

It is not an easy task to implement inclusive education. It is even harder to implement inclusive education for children with ASD due to their characteristics. Various factors can influence the success of the inclusion. Eldar and his colleagues surveyed 37 coordinators working for including children with ASD in kindergartens and schools in Israel, and identified two main categories of influential factors which related to the inclusion of children with ASD: the inclusive environment (such as the preparation of all parties involved such as the inclusion team, classroom students and

parents, the functioning of the coordinator) and the student's functioning (such as their behavioral, emotional, social, and learning aspects) (Eldar, Talmor & Wolf-Zukerman, 2010). As for the research on the outcomes of inclusion, there are contradictory results. Therefore, the inclusive education of children with ASD remains a controversial topic.

2.5.1 Positive research results

Proponents of inclusion argue that studying in the same environment with their typically developing peers is the fundamental right of children with ASD. Meanwhile, positive outcomes have been found in areas such as social development and academic achievement.

Focused on interventions for toddlers, Stahmer and Ingersoll (2004) conducted a quasi-experimental design to explore the outcomes of 20 children under the age of 3 in an inclusive program which consisted of inclusive classroom program, special skills training, and family education and support. The children participated in the program for at least 6 months, and they were assessed with standardized assessment and an observation checklist at entry and exit. At the exit, significant increases in standard scores were gained. The children had made significant improvement in performance on functional measures, functional communication skills, and social and play behaviors.

Kennedy and his colleague compared the social relationships of two groups of intermediate school students with severe disabilities; one group of students were in general education classrooms, and the other in special education classrooms. Students in general classrooms have more social contacts and interaction with their typically developing peers, provide and receive more social support behaviors, and establish more extensive and durable friendship networks with typical peers (Kennedy, Shukla, & Fryxell, 1997).

Strain (1983) applied a multiple baseline across subjects design to examine the impact of developmentally integrated and segregated settings on the generalization of four autistic children's social behavior change. Three 20-minutes sessions (with one

devoted to peer-mediated training, one to integrated generalization assessment, and one to segregated generalization assessment) were counterbalanced and conducted each day. The results showed that integrated sessions could yield superior generalization effects for all the four subjects.

Boutot and Bryant (2005) investigated the social integration of ten children with ASD in inclusive elementary classrooms, including their acceptance (social preference), visibility (social impact), and membership in a peer group (social network affiliation). The results suggested that no significant differences in the three social integration constructs were found between students with ASD and students without disabilities. They were accepted, visible and members of peer groups in inclusive settings.

Harris and her colleagues (Harris, Handleman, Kristoff, Bass, & Gordon, 1990) focused on the changes in language development of young children with autism. They chose five children with autism in a segregated class, five in an integrated class, and another four typically developing peers in the integrated class. The results showed that all the children made progress in language ability and no significant differences in language ability were found between children with autism in segregated and integrated classes.

Eldar and his colleagues investigated the successes and difficulties of including children with ASD from the perspective of the coordinators. Instances of success in the social domain, the behavioral domain and few in learning skills and academic skills were reported by the 37 coordinators surveyed (Eldar, Talmor & Wolf-Zukerman, 2010).

As for typically developing peers, there are also research results indicating that inclusive education also brings positive outcomes for them, in terms of their development of social cognition, pro-social personal characteristics, and acceptance of human diversity (Peck, Carlson, & Helmstetter, 1992). There are also research results that indicate the inclusion of students with SEN has no adverse influence the academic performance of typically developing students (Demeris, Childs and Jordan, 2007; Dyson, Farrell, Polat, Hutcheson, & Gallannaugh, 2004). Focused on the

inclusion of students with ASD, Quinn (2011) applied a pretest-posttest quasi-experimental design to study the impact of including students with ASD on the academic achievement of typically developing peers. Two groups of typical peers were assigned to inclusive or non-inclusive classes, and the results showed no significant differences between the two groups. Quinn (2011) argued that including students with ASD was not detrimental to typical peers' academic achievement.

2.5.2 Mixed and negative research results

There are also researchers and research results that are not in favor of including children with ASD. Their main concern is that the inclusive environment cannot provide individualized, structured and effective learning environment for students with ASD (Mesibov & Shea, 1996). The students with ASD may experience difficulties in emotion and behavior regulation in inclusive settings, and they may underperform in terms of academic achievement (Ashburner, Ziviani, & Rodger, 2010).

Mesibov and Shea (1996) stated their position that they did not advocate the *full inclusion* of students with autism in their article *Full Inclusion and Students with Autism*. By reviewing existing literature, they argued that the limited research literature did not sufficiently support the full inclusion of students with autism; by analyzing the nature of autism, they pointed out that many traditional instructional techniques were neither comprehensible nor effective to students with autism, and that the characteristics of *some* students with autism required smaller and highly structured learning environment (Mesibov & Shea, 1996).

Gutierrez Jr. and his colleagues explored the natural social interaction between three children with ASD and their typical peers in an inclusive playground (Gutierrez Jr, Hale, Gossens-Archuleta, & Sobrino-Sanchez, 2007). They found that in naturally occurring situations, the three subjects rarely interact with their typically developing peers, and they argue that additional, systematic interventions are required to facilitate social interaction in inclusive settings.

Kishida and Kemp (2009) compared the engagement and interaction of children

with ASD in segregated and inclusive early childhood settings. According to the research results, better engagement and higher levels of adult interaction were found in segregated settings, while a slightly higher level of peer interaction was found in inclusive settings (Kishida & Kemp, 2009). The researchers argued that the setting itself did not necessarily provide better learning opportunities and that efforts should be made to maximize the strength and minimized the weaknesses of the settings (Kishida & Kemp, 2009).

Ashburner and his colleagues compared teachers' perceptions of students with ASD with that of typically developing students in terms of academic performance and abilities to control their emotions and behavior in mainstream classrooms (Ashburner et al., 2010). The results showed that the possibilities for students with ASD in mainstream classrooms to exhibit behavioral and emotional difficulties were significantly higher than that of their typically developing peers, and that more students with ASD were rated as academically under-achieved (Ashburner et al., 2010). The researchers stated that students with ASD seemed to be underperforming and experienced difficulties in emotion and behavior regulation in mainstream classrooms even though specialist supports were provided (Ashburner et al., 2010).

Reed and his colleagues (Reed, Osborne & Waddington, 2012) conducted a comparative study to explore the differences in the behavior of children with ASD between those in mainstream schools and those in special schools. They measured all the 97 participants' behavior (54 in mainstream schools and 43 in special schools) with the Strengths and Difficulties Questionnaire and the Vineland Adaptive Behavior Scale at the beginning of the school year and then at the end of the school year. The result showed that children in special schools made greater improvement in conduct and socialization (Reed et al., 2012).

2.5.3 Effective strategies for including children with ASD

Although there are different research results about the inclusive education for children with ASD, it is a fundamental right for the children to have access to regular schools and it is the responsibility of those schools to provide a child-centered

pedagogy for the children with ASD. Apart from the inclusive setting itself, so many other factors can influence the practice of inclusion. The focus of the research should be shifted from the question whether children with ASD should be included to the question how we can improve the practice of inclusive education (Reed, Osborne & Waddington, 2012; Thomas, Walker, & Webb, 1998); future research has to “answer questions of *how* rather than *why*” (Reed, Osborne & Waddington, 2012, p. 761).

For an effective inclusive practice, it is more than the inclusive setting itself; appropriate preparation and supports are also important, because most children with ASD lack the skills to benefit from an inclusive educational setting without support (Gena, 2006). Barnard et al. (2000) identified **appropriate supports** as a critical element influencing the level of education experience satisfaction reported by parents or carers of persons with autism or Asperger syndrome. The findings of their survey indicated that the type of school might be important in some instances because it might provide certain specific settings, but the need for relevant training and expertise for staff and appropriate support for the child was of paramount importance (Barnard, Prior, & Potter, 2000). Eldar et al. (2010) argued that appropriate **preparation of the environment**, including the preparation of the school staff, personnel of the team, other students in the classroom, and parents, could substantially influence the implementation of inclusive education (Eldar, Talmor & Wolf-Zukerman, 2010).

Individualized **interventions** are also an indispensable part of appropriate supports in including children with ASD. A large body of research has been conducted to explore effective strategies for educating children with ASD in inclusive classrooms. For example, antecedent procedures (e.g. priming, prompting, picture schedule), delayed contingencies, self-management strategies, peer-mediated interventions, and multicomponent strategies are identified as successful intervention strategies (Harrower & Dunlap, 2001).

The table below summarizes effective strategies that have been explored by researchers to improve the practices of inclusive education for students with ASD.

Table 2.1 Effective Strategies for including students with ASD

Strategies	Researchers	Improved areas	Age group
Systematic arrangements of toys and play materials	Morrier, McGee & Daly, 2009	Social behaviors	Preschool
Priming	Zanolli, Daggett & Adams, 1996	Spontaneous social initiations	Preschool
Group affection activities	McEvoy et al., 1988	Interaction with peers	Preschool
Social skills groups	Kamps et al., 1992	Social interaction	Primary school
Tactile Prompt device	Taylor & Levin, 1998	Verbal initiation	Primary school
Prompting and social reinforcement	Gena, 2006	Social interaction with peers	Preschool
Using preferred interests	Koegel, Kim, Koegel & Schwartzman, 2013	Socialization	High school
Peer-mediated intervention	Goldstein, Kaczmarek, Pennington, & Shafer, 1992	Social interaction	Preschool
Peer training intervention	Owen-DeSchryver, Carr, Cale, & Blakeley-Smith (2008).	Social interaction	Primary school
Peer initiation intervention	Odom & Strain, 1986	Social interaction	Preschool
Teacher-antecedent intervention			
Peer-mediated strategy	Sainato, Strain, Lefebvre & Rapp, 1987	Transition time behavior	Preschool
Antecedent prompt strategy			
Peer incidental teaching	McGee, Almeida, Sulzer-Azaroff & Feldman, 1992	Reciprocal peer interaction	Preschool
Direct modeling and video modeling provided by peers	Odluyurt, 2013	Play skills	Primary school
Peer imitation	Garfinkle & Schwartz, 2002	Social interaction	Preschool
Group-oriented contingency	Kohler, Strain, Hoyson, Davis, Donina & Rapp, 1995	Social interaction	Preschool
Classwide peer tutoring (reading instruction)	Kamps, Barbetta, Leonard & Delquadri, 1994	Reading skills; social interaction	Primary school
Cooperative learning groups	Dugan, Kamps, Leonard, Watkins, Rheinberger, &	Academic performance and	Primary school

	Stackhaus, 1995	engagement; Social interaction	
	Kamps, Leonard, Potucek & Garrison-Harrell, 1995	Academic performance and engagement; social interaction	Primary school
Cooperative learning	Grey, Bruton, Honan, McGuinness, & Daly, 2007	Social engagement	Primary school
Self-management strategy	Koegel, Koegel, Hurley & Frea, 1992	Disruptive behavior Social skills	Primary school
	Strain, Kohler, Storey & Danko, 1994	Social interaction	Preschool
	Sainato, Strain, Lefebvre & Rapp, 1990	Independent work skills	Preschool
Photographic activity schedules	Hall, McClannahan & Krantz, 1995	Independent engagement	Primary school
Embedded music therapy interventions	Kern & Aldridge, 2006	Play; involvement with peers	Preschool

Deficits in social communication and interaction are important characteristics of children with ASD. Inclusive settings provide excellent opportunities for them to interact with peers and so on. Great efforts have been made to improve their social development in inclusive settings. Focused on environmental arrangement, Morrier and his colleagues (Morrier, McGee & Daly, 2009) examined the effects of three toy arrangement conditions (conventional selection and arrangement, systematic materials package, and enhanced materials package) on peer-related social behaviors of 15 preschool children (7 with autism and 8 typically developing children) in an inclusive classroom. The results indicated that both systematic and enhanced materials packages were more effective in increasing positive social behaviors and decreasing negative social behaviors.

Zanolli et al. applied a multiple baseline across activities design, and used a priming strategy to increase the social initiation of two boys with ASD to their typically developing peers in an inclusive preschool classroom. The results indicated that priming was an effective strategy to increase the spontaneous initiations of

children with ASD and to minimize the demand of teacher's support during their interaction (Zanolli, Daggett, & Adams, 1996).

McEvoy et al. (1988) applied group affection activities to promote peer interaction of three autistic children in an integrated preschool setting with a multiple baseline across subjects research design. Group affection activities have the advantages such as being intrinsically reinforcing, and being able to deal with both autistic children and their peers; besides, these activities can be easily integrated into daily activities. With the implementation of affection activities, increases in peer interaction (including initiations and reciprocal interactions) were observed during the affection activities and free play. McEvoy et al. (1988) suggested that to integrate affection component into preschool activities is important.

Kamps et al. (1992) used social skills groups to improve social interaction between students with ASD and their typical peers, and the results demonstrated an improvement of their social interaction (including the frequency, time engaged, the duration and their responsivity).

Taylor and Levin (1998) focused on using a tactile prompt device (the Gentle Reminder) to facilitate a student with autism to make verbal initiations to his peers in the regular classroom. They used a multiphase multielement design, which examined the verbal initiation of the student to an adult during three play activities under: a no-prompt condition, a verbal prompt condition, and a tactile prompt condition; they also carried out a follow-up probe to investigate the student's verbalization to his peers. The researchers argued that the tactile prompt device was an effective and unobtrusive prompt to facilitate the verbal initiation during play and cooperative learning activities (Taylor & Levin, 1998).

By using a multiple baseline across subjects research design, Gena (2006) combined prompting and social reinforcement strategies (provided by a shadow teacher) to improve the social interactions of four children with autism in inclusive preschools. With this multi-component intervention, all of the four subjects exhibited great improvement in social interactions (including initiations and replies to peer initiations) (Gena, 2006).

Koegel and his colleagues focused on using preferred interests of students with ASD to improve their socialization (Koegel, Kim, Koegel, & Schwartzman, 2013). They employed a multiple baseline across participants design in an inclusive high school, and incorporated the preferred interests of students with ASD into lunchtime activities. The results showed that the subjects' engagement with typical peers and their initiations made to typical peers had been increased.

Peer-mediated intervention is another effective strategy to improve not only social behaviors of children with ASD, but also their academic performance in inclusive settings (Dugan, Kamps, Leonard, Watkins, Rheinberger, & Stackhaus, 1995; Garfinkle and Schwartz, 2002; Goldstein, Kaczmarek, Pennington, & Shafer, 1992; Kamps, Barbetta, Leonard, & Delquadri, 1994; Kamps, Leonard, Potucek, & Garrison-Harrell, 1995; McGee, Almeida, Sulzer-Azaroff, & Feldman, 1992; Odom & Strain, 1986; Owen-DeSchryver, Carr, Cale, & Blakeley-Smith, 2008; Sainato, Strain, Lefebvre & Rapp, 1987). Meanwhile, it has very positive outcomes of social validity (Harrower & Dunlap, 2001).

Goldstein et al. (1992) used ABCB reversal design to test the effects of a peer-mediated intervention on social interaction of five preschoolers with autism and their typical peers. According to the results, having peers to attend to, comment on, and acknowledge the behavior of the children with ASD can increase their social interaction with typical peers (Goldstein et al., 1992).

Owen-DeSchryver and his colleagues (2008) used a peer training intervention to facilitate the social interaction of three autistic students with their typical peers. The results showed an increase in social initiations by trained peers, and also increased initiations and responses by students with ASD (Owen-DeSchryver, Carr, Cale, & Blakeley-Smith, 2008).

Odom and Strain (1986) compared the effectiveness of a peer-initiation intervention and a teacher-antecedent intervention to increase the social interaction of children with ASD and their typical peers. According to the results, the former increased the social responses of the children with ASD, while the latter increased both social initiations and responses (Odom & Strain, 1986).

Sainato and her colleagues (1987) utilized an alternating treatments design to test the relative effectiveness of a peer-mediated strategy versus an antecedent prompt strategy on transition behavior of three target children with autism in a preschool classroom. The result indicated that both strategies were effective to increase target behaviors during transition times, and that the antecedent prompt tactic produced superior outcomes under all three transition conditions (Sainato, Strain, Lefebvre & Rapp, 1987).

McGee et al. (1992) used a multiple baseline across subjects research design to promote reciprocal peer interaction of children with autism with a peer incidental teaching strategy in an inclusive preschool program. The peer incidental teaching intervention was conducted during free play period. Compared with baseline, positive effects were observed across three subjects during both the training period and the fading period of teachers' intervention; the peer incidental teaching method was effective in increasing reciprocal peer interaction of children with autism (McGee, Almeida, Sulzer-Azaroff, & Feldman, 1992).

Odluyurt (2013) employed an adaptive alternating treatments model from single subject designs to compare the effectiveness of direct modeling and video modeling in teaching game playing skills for children with ASD in inclusive settings. Eighteen typically developing peers were taught to use direct modeling and video modeling for 3 pupils with ASD in two similar games. The results showed that both strategies were effective in teaching games for children with ASD, and that no significant differences were found between the effectiveness of these two methods.

Garfinkle and Schwartz (2002) conducted a single subject research to increase the social interaction of four children (three with autism, and one with developmental delay) by using the strategy of peer imitation. The peer imitation training was integrated into small-group activities. According to the results, there was an increase in peer imitation behaviors during intervention (group activities) and the following free play phase. Increases in both social behavior and nonsocial engagement were also observed.

Kohler et al. (1995), also aiming at increase the social interaction between

children with autism and their peers, used a group-oriented contingency method. The researchers applied an A-B-A-B-A-B single-subject reversal experimental research design, and the strategy was integrated into daily group manipulative play activities. With the intervention, all three subjects exhibited an increase in social interactions with peers, such as play organizer, share, assistance and so on.

Focused on reading instruction, Kamps et al. (1994) applied a classwide peer tutoring (CWPT) strategy for three high-functioning children with autism in inclusive classrooms. The results indicated an improvement in reading fluency and correct responses to reading comprehension questions, and an increase in social interaction of students with autism and their typical peers was observed during the following unstructured free-time activities (Kamps, Barbetta, Leonard, & Delquadri, 1994).

Dugan et al. (1995) used an ABAB research design to investigate the effectiveness of cooperative learning groups for improving the academic performance, engagement and social interactions of two students with ASD in a fourth-grade inclusive classroom. The cooperative learning groups program consists two components: lesson-related activities and teamwork encouragement. The results indicated that the cooperative learning groups were effective in improving the target students' academic performance and engagement, and in promoting their social interaction with peers (Dugan, Kamps, Leonard, Watkins, Rheinberger, & Stackhaus, 1995).

Similarly, Kamps et al. (1995) also used a reversal research design, to test the cooperative learning group procedure as an instructional strategy in reading activities for three students with ASD and their typical peers. The results also showed increases in academic performance, engagement and social interaction (Kamps, Leonard, Potucek, & Garrison-Harrell, 1995).

Grey et al. (2007) explored the effectiveness of cooperative learning in improving social and task engagement of children with ASD in both mainstream and special needs classrooms. Two 8-year-old children with ASD participated in cooperative learning groups which consists of three typically developing peers, and the two groups were separately implemented in a mainstream classroom and a special

needs classroom, with four baseline sessions and seven cooperative learning sessions. According to the results, substantial improvement in social engagement was found in both mainstream and special classrooms, but increased task engagement was not observed.

Self-management strategy is another useful strategy with many advantages such as reducing teacher intervention, eliminating the stigma of relying on an aide and getting more involved in the environment, it is very suitable for inclusive settings (Harrower & Dunlap, 2001). Self-management strategy has been proved to be an effective way for reducing challenging behaviors, improving social behaviors and developing independent working skills (Koegel, Koegel, Hurley, & Frea, 1992; Sainato, Strain, Lefebvre, & Rapp, 1990; Strain, Kohler, Storey, & Danko, 1994).

In order to increase the independence of students with disabilities in inclusive classrooms, Hall, McClannahan, and Krantz (1995) utilized photographic activity schedules which were used to demonstrate daily activities for three children with disabilities (with one child diagnosed with autism). There were positive outcomes in independent engagement in activities and low levels of prompts.

Kern and Aldridge (2006) used a multiple baseline across participants research design to explore the effects of music therapy intervention on the peer interaction of children with ASD on an inclusive playground. Four young boys with ASD participated, and four stages (including baseline, playground adaptation, teacher-mediated intervention and peer-mediated intervention) were implemented. The results indicated that the musical equipment itself did not facilitate peer interaction of children with ASD, but the musical therapy intervention created opportunities for the engagement in musical activities and thus facilitated the peer interaction on the playground.

Apart from those strategies which have been studied in inclusive settings, Harrower and Dunlap (2001) also suggested that strategies such as pre-task sequencing, pivotal response training and naturalistic teaching strategies can also be used for students with ASD in inclusive settings.

2.6 Supporting systems in inclusive education

2.6.1 *Supports and supporting systems*

AAIDD

The concept of “supports” was initially proposed by American Association on Intellectual and Developmental Disabilities (Formerly AAMR) in 1992, which was intended to advance a supports-based approach to defining, diagnosing, and classifying the condition of mental retardation. According to AAIDD, supports refer to resources and strategies that aim to promote the development, education, interests, and personal well-being of a person and that enhance individual functioning (AAIDD, 2010). It might include individuals, agencies, money or tangible assets, assistive devices, or environments, and can be provided by parents, friends, teachers, psychologists, doctors, or by any appropriate persons or agencies (AAIDD, 2013).

The proposal of this concept has revolutionized the way in which people consider disabilities and provide services. Instead of being classified into pre-existing categories, people with disabilities are understood by the types and intensities of supports needed rather than their deficits; instead of being fitted into pre-existing model of services, people with disabilities are provided with individualized services to optimally function and to fully participate in the community (AAIDD, 2013). The supports paradigm has built a bridge between “*what is*” and “*what can be*” (Thompson et al., 2009); the focus has been shifted from the question what people with disabilities cannot do to the question what supports should be provided to enable their full inclusion in their community. It reflects a person-centered approach, which can contribute to the improvement of personal functioning, self-determination and the well being of people with intellectual disability (AAIDD, 2013).

It is noteworthy that according to AAIDD, supports are not supposed to be arranged in isolation but be planned and integrated. AAIDD advocates a “systems of supports model”. According to Human performance technology (HPT) theorists, human functioning is multidimensional, and it is a result of interaction between human behavior and the environment (Thompson et al., 2009). It is influenced by

elements including: organizational systems, incentives, cognitive supports, tools, physical environment, skills–knowledge, and inherent ability, all of which are interdependent and cumulative; addressing any single elements might produce limited value, compared with taking multiple elements into consideration (Thompson et al., 2009). Supports should be provided in an integrated way to deal with aforementioned multiple elements. Therefore, a “systems of supports” refers to “planned and integrated use of individualized support strategies and resources that encompass the multiple aspects of human performance in multiple settings” (AAIDD, 2010). It emphasizes an overall organization of all elements that influence human performance. Meanwhile, the integrated systems of supports not solely rely on paid staff to provide supports, but advocate the construction of support networks that include natural supports, for instance, supports from classmates neighbors, coworkers, bus drivers and so on (AAMR, 2004).

Further, in order to promote the supports-based approach and to help people determine individual’s support needs, AAIDD published the *Supports Intensity Scale* in 2004 to help measure the level of practical supports needed by people with intellectual disabilities. In the scale, nine critical support areas are included: human development, teaching and education, home living, community living, employment, health and safety, behavior, social, and protection and advocacy (AAIDD, 2008). A careful and comprehensive evaluation of support needs is the basis of appropriate supports provision.

UNESCO

UNESCO explained the organizing of supports in inclusive systems in the *Open File on Inclusive Education: Support Materials for Managers and Administrators*. UNESCO (2001) defines supports as “everything that enables learners to learn” and “particularly includes those resources which supplement what the regular class teacher can provide” (p. 71). The provision of effective supports is critical for inclusive schools to meet diverse needs of the students.

Meanwhile, in the context of inclusive education, it is important to integrate

supports into daily school activities. Resources available at every school are the most important form of supports, such as regular education teachers, peers, communities and so on. If other services from resource centers and other professionals are needed, they should be oriented to the inclusive setting (UNESCO, 2001). This is also an important principle of inclusive education which is different from the segregated way to provide services in traditional special education.

Further, supports should be organized and integrated into a holistic system.

“Support has to be delivered holistically. Services and agencies have to work together rather than isolation from each other. This may mean creating local management structures for services which are the same as those for managing schools.” (UNESCO, 2001, p. 71)

An integrated and collaborative system of supports can improve the accessibility of different services, and the evaluation of supports can be more focused on the difficulties students facing in schools and communities rather than a decontextualized assessment (UNESCO, 2001).

DEC & NAEYC

Focused on early childhood inclusion, DEC and NAEYC (2009), in their joint statement, claimed that “an infrastructure of systems-level supports must be in place to undergird the efforts of individuals and organizations providing inclusive services to children and families” (p. 2). This kind of systems should provide a continuum of services and supports that can meet the varying needs of different children, in order to ensure the access, participation, and supports needs to achieve the desired results related to inclusion (DEC & NAEYC, 2009). The supports should cover ongoing professional development and support for practitioners, specialists and administrators, resources and program policies to ensure communication and collaboration, specialized services and therapies for children with SEN, funding, quality framework, and incentives for inclusion and so on; the objects of the supports provided include children, families, practitioners, specialists, administrators (DEC & NAEYC, 2009). Therefore, according to DEC and NAEYC, families, practitioners, specialists,

administrators etc. are supports providers as well as receivers.

2.6.2 Research on supporting systems in inclusive education context

A large body of research has been conducted to explore effective strategies to provide supports for students with SEN in inclusive settings, such as instructional techniques, grouping strategies, peer-mediated interventions, parents' participation and so on. Those strategies are important parts of a holistic supporting system. As for research on the overall systems of supports for students with SEN, current studies mainly cover the theoretical exploration of the system frameworks, and investigations into the current supporting systems in practice.

The framework of supporting systems

Some researchers try to construct the framework of supporting systems in inclusive education settings (Chen & Yu, 2013; Fang, 2006; Peng, 2014; Qing, Liu, Yang, & He, 2005; Shen, 2006; Yang, 2008). Fang (2006) framed supporting systems by categorizing supports into five aspects: policies, equipment, specialists, family supports, and social supports. Some scholars frame the systems by supports providers, for example, families, general education schools, special education schools, communities, government and so on (Chen & Yu, 2013; Peng, 2014; Qing, Liu, Yang, & He, 2005; Shen, 2006; Yang, 2008). Qing and her colleagues proposed a model of supporting system consisting of five sub-systems including school, family, community, government, and self-supporting. The sub-systems interact and influence each other (Qing, Liu, Yang, & He, 2005). They are important supports providers and also important components of supporting systems.

General education schools play an essential role in the implementation of inclusive education. The schools have the responsibilities to accept all students, to establish an inclusive physical and psychological environment to ensure every student have access to learning opportunities, to provide supports to students to help them achieve success, and to provide training opportunities and supports for teachers; by doing these, the schools can finally facilitate the realization of educational equity

from the start, during the process, and in the outcome (Chen & Yu, 2013; Yang, 2008). Meanwhile, resource rooms should be established to provide services including educational assessment, instructions, interventions, consultation and training and so on.

As for **special education schools**, they can serve as resource centers for inclusive kindergartens, providing access to devices, materials and training (UNESCO, 1994). Teachers in special education schools, who have valuable experience and resources about teaching children with SEN, can provide strong support for preschool teachers in inclusive kindergartens, for example, working as itinerant teachers to provide direct services for children with disabilities and offer consultation for preschool teachers (Shen, 2006; Yang, 2008; Zhu & Wang, 2011).

Supports from **families** are of great importance. There are various ways in which families can provide valuable support for the inclusion of persons with SEN. Families can provide safe and warm environment for the children, give early intervention and training for children, participate in the inclusive education by keeping communication with teachers, providing information about the children to teachers, being involved in some educational activities, and actively participate in the decision-making processes of some policies (Chen & Yu, 2013; Yang, 2008). In addition, the interaction between families and schools, and communities is also important (Peng, 2012).

To provide supports for inclusive education, **communities** can make efforts by disseminating the concept of inclusion among people, providing career training and working opportunities for people with disabilities, providing resources such as libraries to support the educational activities (Chen & Yu, 2013; Shen, 2006; Yang, 2008).

Government can provide strong supports for the implementation of inclusive education through policies and legislation. Legislation can ensure the educational right of children with SEN and their access to quality education and supports; policies can provide financial support for the implementation of inclusive education, and can help enhance teachers' training to improve teachers' competence (Yang, 2008; Peng, 2012).

Shen (2006) and Yang (2008) also mentioned modern technologies, especially computer technology, which can be very useful tools to support students' learning in inclusive settings. For example, it can help with the rehabilitation of children with disabilities, can assist teaching as well as learning activities, and can deliver special education services from remote places.

The European Agency for Special Needs and Inclusive Education (the Agency) conducted an Organization of Provision to Support Inclusive Education project (OoP) from 2011 to 2013 in order to help countries to develop a rights-based approach to education. In the literature review by European Agency for Development in Special Needs Education (2013), they summarized some overarching principles of provision systems: that support should be person-centered, be provided in the community rather than in segregated settings, and should take permanent human relationships and long-term development into consideration. In terms of the systems of support to enhance the capacity of inclusive schools, they referred to the community support, school level support, and classroom organization and individual learner support. In their summary report (2014), they emphasized the need for a systemic view that focuses on developing the capability at all levels of the system, and that efforts should be made to develop strong links and mutual support between all levels of the system in order to benefit all learners.

Investigation into supporting systems in practice

Apart from theoretically constructing the supporting systems, there are also researchers investigated the supporting systems in real practice, and tried to figure out how well the systems are supporting persons with special educational needs.

Gao, Cao and Cai (2004) introduced their experience of constructing supporting systems for students with SEN in inclusive schools. Four main aspects were mentioned: resource rooms were established as a core element and facilitate the construction of supporting systems; administration supports from government and Disabled Persons Federation guaranteed the implementation of inclusive education; classrooms and schools provided direct supports for students with SEN; the

interaction between families and communities integrated social resources.

Peng (2012) investigated the status quo of supporting system of inclusive education in the Olomont Region of the Czech Republic. The researcher collected data from general education teachers and parents of children with disabilities through questionnaires, and interviewed parents, teachers and principals. The results showed that the supporting system in the region surveyed was mainly working by means of implementing inclusion-oriented educational policies, giving necessary support, providing qualifications and training for teachers, and adjusting the roles of special education schools. However, there are also problems brought about by the traditional social concepts, the lack of financial support from the government, the limited chance for the professional development of teachers, and the lack of parents training and participation.

Qing and Liu (2007) surveyed teachers, students with SEN and their parents, typically developing students and their parents, in order to investigate the current situation of government supports, community supports, family supports, school supports, and self supports of students with SEN learning in regular classrooms in rural areas of China. According to their survey, the family support system and school support system were relatively sound; government offered financial support; however, there was inadequate community support, and students with SEN had relatively low self-expectation.

Focused on preschool inclusion, Yang (2012) conducted a qualitative study to explore the supporting system constructed for children with SEN in a regular kindergarten based on Bronfenbrenner's social ecological model. Yang chose two children with SEN as individual cases, and examined the supports they received through interviews, observation and content analysis. The results showed that the children received supports from families, kindergarten, relevant personnel and institution outside the kindergarten, and the kindergarten had major impact on the inclusion. However, the families and kindergarten did not establish a good cooperation mechanism; the kindergarten did not set up contact with special education institutions; the relations between families and special education institutions are loose.

In addition, relevant policies and legislation were still in initial stage, and there was still a long way to develop social consciousness and values about inclusive education.

In order to investigate the supports received by preschoolers with ASD in inclusive kindergartens, Jin (2013) surveyed 84 teachers (including 58 preschool teachers and 26 special education teachers), and 66 parents whose children were diagnosed with ASD and were studying in inclusive kindergartens. According to data collected, both teachers and parents thought that the children had received proper overall supports, and that supports from teachers were considered the most adequate. However, teachers and parents held different opinions on the supports from kindergarten administration and from parents, which might be a consequence of inadequate communication.

Hou (2009) conducted an action research on the construction of a school-based support system for three autistic children in a kindergarten. Based on the evaluation of support needs of children, Hou constructed a system which included three action tactics: (1) educational placement and guidance, (2) activities to help peers understand children with SEN, (3) environmental arrangement. After one semester, the researcher reported that the supporting system could meet the needs of the three children and it provided them with effective natural supports. The researcher argued that the system solved the problems faced by the teacher and that parents and teachers were satisfied with the services.

2.7 Summary

Inclusive education, which reflects an emphasis on human rights for every person, has gained much attention from researchers in the past two decades. At the first several years, discussion was mainly focused on the rationale for inclusion, and on the question whether people with disabilities can benefit from inclusive education or not. Gradually, the focus has been shifted to the question how people should support students with SEN in inclusive settings. In recent years, much evidence-based research has been conducted to provide empirical supports for the implementation of inclusive education. Applicable interventions and strategies in inclusive settings have

been explored.

However, the practice of inclusive education is still at very beginning stage. There is uneven development across countries, regions, and even schools; there is also uneven development in the inclusive education for children with different special needs. Further empirical research has to be carried out to find effective strategies for including children with SEN. It is pivotal for every country, region or school to find their own ways of implementing inclusive education, thus to meet their local requirements and solve local problems.

Supports, an important construct in inclusive education context, play critical roles in inclusive practices. A well-organized system of supports can largely facilitate the success of inclusive education. There has been much discussion about what supports should be involved, supports providers, the roles of personnel involved etc., but there is still not much research focusing on the support system in practice. How is it overall organized and how is it supporting the children with SEN in inclusive settings? How does each component of the system connect with each other? How should it be improved? How should the organization of supporting systems be adapted to local situations? These are more questions to be answered.

As for including children with ASD, the research focus also illustrates a trend from question “*why*” to the question “*how*” (Reed, Osborne & Waddington, 2012). Since studies have demonstrated that most children with ASD lack the skills to benefit from the inclusive settings by themselves, much recent research has been conducted to explore effective interventions and supports for including children with ASD (Gena, 2006). Moreover, because there are also different outcomes for including children with ASD from different age groups, further emphasis has to be placed on the inclusive education for students from different age groups.

3 METHODOLOGY

3.1 Design of the research

3.1.1 *Qualitative paradigm*

Qualitative research is “a form of inquiry that explores phenomena in their natural settings and uses multi-methods to interpret, understand, explain and bring meaning to them” (Anderson & Arsenault, 2005, p.126); it can make use of multiple perspectives, different theoretical positions, data-collecting, analyzing and interpreting methods, in order to yield profound understanding of phenomena (Anderson & Arsenault, 2005). The research has adopted a qualitative paradigm to explore the construction of supporting systems for including children with ASD in preschool classrooms. There are mainly two reasons to choose the qualitative paradigm.

Firstly, the research is aimed at analyzing supporting systems and their construction in inclusive education practices. It requires in-depth as well as detailed information about what the supporting system is like, how the system is helping children with ASD, and how it is constructed and supporting the children with special educational needs, especially in natural settings. It is focused on the reflection of what happened in real life. Qualitative paradigm of research can meet the requirement.

Secondly, the focus of the study is the construction of supporting system for children who are diagnosed with ASD and are also included in general preschool education. It is not easy to find a large number of adequate participants to conduct quantitative research with a large sample. Meanwhile, it is impossible to control all the variables in the natural environment, so experimental research design is also not suitable for this research. Therefore, qualitative paradigm is the optimal choice for meeting the research objectives.

3.1.2 Qualitative methods

Grounded theory

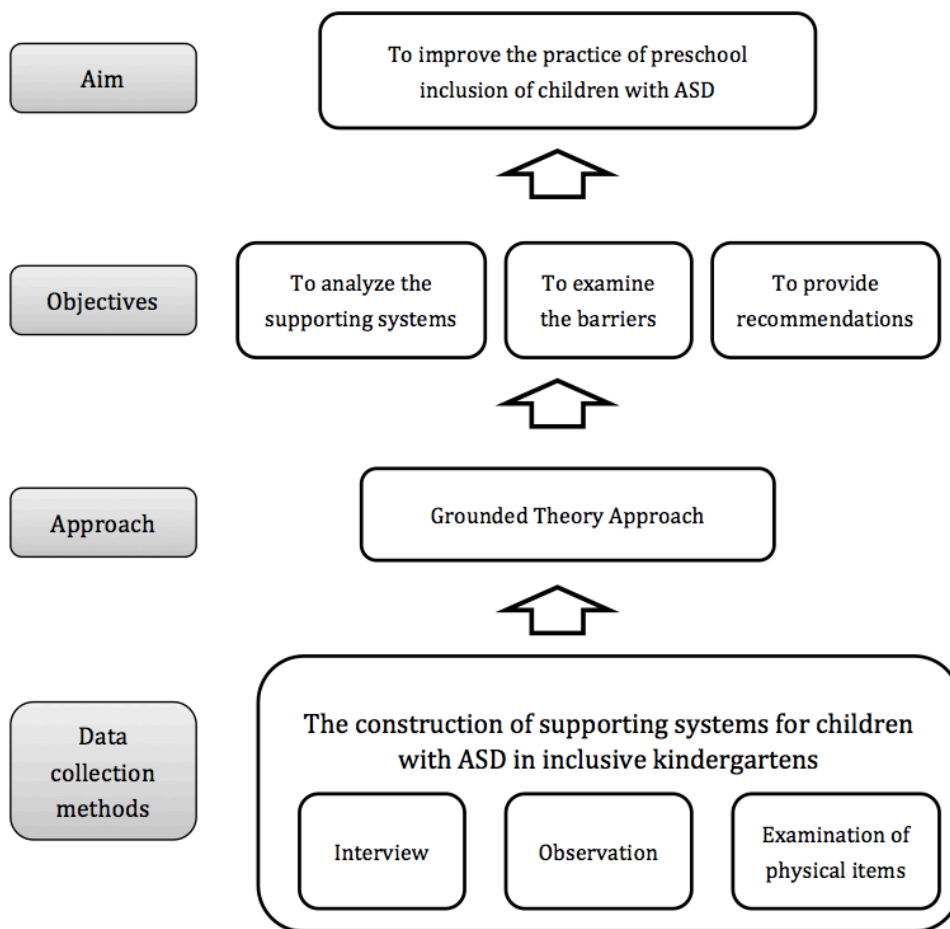
Grounded theory, which was developed by Glaser and Strauss, has become increasingly popular in recent years. In contrast to a deductive approach to theory development, grounded theory researchers employ an inductive way of theory development which is grounded in data systematically gathered and analyzed (Anderson & Arsenault, 2005). Grounded theory most often stems from qualitative data sources (Birks & Mills, 2011); various types of data sources can be used, such as interviews, observations, videos, journals, diaries, drawings, internal documents and so on (Corbin & Strauss, 2015). It can be applied to identify general concepts, to develop theoretical explanations and to offer new insights into various experience and phenomena (Corbin & Strauss, 2015). Therefore, grounded theory builds up a bridge which connect theory with experience.

The aim of the current research is to explore the practice of supporting systems construction for children with ASD in the context of preschool inclusion. Through the grounded theory approach, the researcher attempts to develop theories from data collected through interview, observation, and examination of physical items. With the theories developed, the research aims to further interpret the reality, offer new insights into the practice of supporting systems construction, and therefore guide the practice of supporting systems construction.

3.1.3 Research framework

The diagram below illustrates the framework of the research.

Diagram 3.1 Research Framework



3.2 Research participants

The recruitment of participants was a process that combined purposeful sampling and theoretical sampling.

For purposeful sampling, the researcher first chose five children aged between 3 to 7 years old who were diagnosed with ASD and were also included in common preschool classrooms. Then the supporting systems constructed for the children were identified as individual cases. The personnel who were related to the construction of the supporting systems were the sources of data; therefore, the participants of the research included the children with ASD, preschool teachers, administrators of the kindergartens, parents of children with ASD, other professionals who provided supports for the children, teachers from resource rooms or resource centers, and

experts in preschool special education. Different groups of participants had provided rich data for the researcher to explore the research questions from different perspectives and to yield in-depth understanding of the research problem; meanwhile, the various groups of participants also played an important role in the process of triangulation.

As for theoretical sampling, the researcher sought for more participants or interviews with recruited participants to collect further data which would best serve the construction of theories.

The research was conducted in Chengdu city, the provincial capital of Sichuan province, China, so all the participants were from Chengdu. Factors such as gender, race, age, religious background, socioeconomic status were not considered in the selection procedure. The tables below have summarized the basic information of different groups of participants.

Table 3.1 Demographic Characteristics of Participants (Group A: children with ASD)

Participants	Name	Age	Gender	Grade	Diagnosis	Placement
Abbr.						
Participant A1	CC	4	Male	K1	Yes	Regular classroom + institution (half day)
Participant A2	LL	5	Male	K2	Yes	Regular classroom
Participant A3	RR	6	Male	K3	Yes	Regular classroom + institution (one semester)
Participant A4	JJ	6	Male	K3	Yes	Regular classroom
Participant A5	YQ	7	Male	K3	Yes	Regular classroom + resource center (weekend)

Note: K1-K3 means the different grades in kindergartens. K1=bottom class; K2=middle class; K3=top class; Participant A4 spent one more year in the top class in the kindergarten.

Table 3.2 Demographic Characteristics of Participants (Group B-G)

Participants	Number of participant	Average Age	Gender	
			Female	Male
Parents of children with ASD Participant B1-B5	5	31	5	0
Preschool teachers Participant C1-C10	10	29	10	0
Childcare workers Participant D1-D5	5	44	5	0
Administrators of kindergartens Participant E1-E4	4	45	4	0
Resource center teachers Participant F1-F2	2	31	2	0
Other professionals Participant G1	1	30	1	0

3.3 Data collection

Data collection of the research was conducted during a 22-week period, from September 2016 to January 2017, that is, from the starting of the winter semester (September) until winter holiday. In order to examine the construction of the supporting systems for those children, the researcher applied four methods to collect data: interview, observation, and examination of physical items. Multiple sources of evidence were accessed.

3.3.1 Qualitative interview

The qualitative interview, an important data collection method in qualitative research, refers to the process in which a researcher and participant engage in a conversation focused on questions related to a research study (DeMarrais, 2004). It allows researchers to gain in-depth knowledge from participants about particular

phenomena or experiences (DeMarrais, 2004), and can provide the researcher with information from various perspectives (Hays, 2004).

Qualitative interviews were used in the research to collect data about: the personal information of the children, the supports needed by the children, the function of components of the supporting systems, how the systems support the children, the problems with the systems, how the supporting systems can be improved.

The interviewees included teachers and other relevant staff in the kindergartens, administrators of the kindergartens, parents of children with ASD, other professionals who provided supports for the children, teachers from resource rooms or resource centers, and experts in preschool special education. The emphases of the inquiries for each group of participants were distinguished, but they were mainly focused on the aspects mentioned above. The interview inquiries can be mainly categorized into the following aspects: (1) supports needed by the child, (2) supports provided by the interviewee and how, (3) supports provided by other personnel and how, (4) interdisciplinary cooperation, (5) the difficulties faced by the interviewee, (6) how the interviewee thought the system could be improved. The interviewees' personal experience and opinions were valued. Information from different perspectives was obtained from the participants in order to answer the research questions. Overall, as shown in the table below, 30 interviews had been conducted with 27 interviewees.

Table 3.3 Basic information about interviews conducted

Groups Interviewees	Number of interviewees	Number of interviews conducted
Group B: Parents	5	5
Group C: Preschool teachers	10	11
Group D: Childcare workers	5	6
Group E: Resource center teachers	2	3
Group F: Other professionals	1	1
Group G: Administrators of kindergartens	4	4
Total	27	30

The interviews were carried out face to face by the researcher, and both semi-structured and unstructured interviews were used. Questions were kept open, which can encourage the interviewees to reflect on their experiences. The interviews were conducted at the participants' working places as well as other times and places of their convenience. Repeated interviews were used to collect data from interviewees including parents, teachers, administrators and other relevant staff of the kindergartens because they were key informants of the research and with the establishment of rapport much information was revealed through repeated interviews. All the interviews were recorded and then transcribed for further data analysis. When the sources of data were exhausted and a saturation point was achieved, the data collection phase was stopped.

3.3.2 Observation

Observation, an important method to collect data, is used to collect information about the topic of interest with direct observation in the field. It is very helpful to obtain first-hand data in the real context. The research is intended to explore the supporting systems in inclusive education practices, and observation can provide the opportunity to investigate what is happening in natural settings.

The researcher adopted the role of a participant observer: engaging in the regular activities of the kindergartens to a degree, and periodically withdrawing from the setting to check perceptions, record field notes and analyze data. The researcher focused on the life of the children with ASD in kindergartens (including activities carried out and their emotions), the supports needed, and how the children were supported to participate in activities in the kindergartens (including the interaction between the children and other people, the strategies and resources used to support the children, and the outcomes etc.). While observing, field notes were taken; instances of significance were videotaped. When a saturation point was achieved, the data collection through observation was stopped.

During the data collection process, overall three weeks' observation was conducted. The observation was mainly carried out in kindergartens, including in the

classrooms, on the playground and so on. Data such as the children's performance and participation, the supports provided by teachers and assistants, the interaction of the children with their peers and with the adults, and so on were observed and recorded.

3.3.3 Examination of physical items

Physical items, such as the physical environment, documents, conference records, teaching plans, children's portfolio and so on, can provide valuable additional information to supplement the data acquired through other methods. In this research, physical items can indicate how actually the inclusive education was carried out and how the supports were provided from a different lens. Therefore, physical items which are related to the inclusion of the children with ASD were examined, including the physical environment of the inclusive classrooms and kindergartens, documents about the children's information, assessment, portfolio, family-kindergarten contact logbook, the conference records, teachers' teaching plans, teacher-parents chatting records, policies and regulations related to the inclusion of children with ASD.

To keep the original data about physical items, pictures were taken, and documents were photocopied. The examination of physical items was stopped when the sources of data were exhausted.

3.3.4 Theoretical sampling

Theoretical sampling is a method of data collection used in grounded theory research. It emphasizes collecting data from places, people and events that will help to develop concepts in terms of their properties and dimensions, uncover variation, and identify relationships between concepts (Corbin & Strauss, 2015). It is relatively flexible, only with defined population and setting, but others remain open. Because it is based on the concepts in need of development, it can direct data collection to areas that will best serve the construction of theories.

In this research, during the process of data collection, theoretical sampling was employed. The theoretical sampling started after the first analytic session and continued throughout the whole data collection process through interviews,

observation and examination of physical items. The data collection process was then driven by the concepts already developed in the data analysis process. The circular process from analysis to concepts to questions to further data collection and then back to analysis continued until the point of saturation had been reached.

3.4 Data management

To keep the accuracy of the data and to keep the chain-of-evidence, the data collected were managed with caution.

First, all the data collected were dealt with in time. The recordings of interviews were transcribed immediately after the researcher finished the interview. Field notes were promptly screened and transcribed every day, and the video records were transcribed to present a thick description. The pictures of physical items and photocopies of other relevant documents were described in detail. To ensure confidentiality, names of all the participants were coded and there was no identifying information.

Second, all the data were filed and stored. The transcribed texts were filed and stored in computers. Basic information (including the type the data, participants' information, when and where the data were collected and so on) was attached to each file. Meanwhile, all the "raw data" such as the original notes, recordings, pictures, and photocopies of documents, and all the records of analysis such as memos and notes were filed and backed up in order to keep the chain-of-evidence.

3.5 Data analysis

Qualitative data analysis is "a systematic process that organizes the data into manageable units, combines and synthesizes ideas, develops constructs, themes, patterns or theories and illuminates the important discoveries of your research"(Anderson & Arsenault, 2005, p.138). According to Corbin and Strauss (2015), the analysis of data, which goes throughout the research, is an art and a science, and involves interpretation. They emphasize that the interpretation are based on data and are always under scrutiny and validated against further data; meanwhile,

they point out that researchers must be flexible and creative in the use of analytic procedures, thus to construct a coherent and explanatory theory which feels right to the researcher (Corbin & Strauss, 2015).

In grounded theory studies, the data analysis of this research will be conducted concurrently with data collection, and the primary analysis of data provides direction for further data collection which is also *theoretical sampling*. In the current research, the researcher also followed the data analysis procedure in grounded theory study. Three levels of coding process had been conducted, from open coding, axial coding to selective coding. The process of analysis was recorded in memos.

3.5.1 Open Coding

Before starting to code, the researcher reviewed the entire interview, or field notes. Then the researcher started the initial coding. At the open coding stage, the researcher first coded line-by-line, and broke the data into manageable pieces. Having done the line-by-line coding procedure, 978 initial codes were generated.

Then the researcher tried to identify concepts from the data. The concepts identified were tentative and could be checked out against subsequent data. As the analysis proceeded, new concepts were gradually added, previous concepts were revised, the properties and dimensions of concepts were developed, and similar codes were used to form categories. With the ongoing process of data collection, new information was then gathered and the codes and categories were further revised.

After the open coding step, concepts had been developed based on the data collected. With constant comparison, some concepts were grouped together, and some major categories were formed.

3.5.2 Axial coding

The axial coding process is to explore the relationships between and within categories, because a list of concepts doesn't make theory; concepts have to be woven together to tell the original main story (Corbin & Strauss, 2015). With axial coding, categories and subcategories are related to each other, and relationships between

categories are explored to explain what is going on.

During axial coding, the researcher tried to relate categories and subcategories, and attempted to figure out the links between different categories. The researcher also employed the coding paradigm and the conditional/consequential matrix proposed by Corbin and Strauss (2015) during the coding process. The coding paradigm is a tool which helps analysts to organize and link concepts from the aspects of conditions, action-interactions, and consequences or outcomes; the conditional/consequential matrix, on the other hand, helps the analysts enrich the analysis and brings complexity into the analysis. With the axial coding process, categories were linked together to form basic explanations.

3.5.3 Selective coding

Selective coding is the process of integrating and refining the emerging theory. This final stage usually occurs after all the categories are saturated and the researcher is ready to end the research process. In this process, categories will be linked around a core category - a concept that is sufficiently broad and abstract enough to represent the main ideas expressed in the study (Corbin & Strauss, 2015). Therefore, at this stage, after reviewing all the previous memos, the researcher should figure out the main story line, pick out the core category, and relate other categories to it through explanatory statements of relationships.

Therefore, during the selective coding process, the researcher attempted to form a theoretical scheme which could explain the practice of constructing supporting systems. The researcher applied the techniques such as writing descriptive summary memos, conceptual summary memos and using integrative diagrams, in order to aid integration. With the emerging theoretical scheme, the researcher finalized the theory by reviewing the scheme for internal consistency and logic, filling in poorly developed categories, trimming the theory and so on.

3.5.4 Data analysis instrument

The researcher utilized the qualitative data analysis tool - ATLAS. TI (version

1.0.51) -to help with the analysis process. All the data collected, including the transcribed interviews, field notes of observation, pictures, videos, are imported into the software.

Then the researcher used the software to code line-by-line. Constant comparisons were made to further revise the codes, and the codes were re-edited in the software. Relations (such as “is a”, “is part of”, “is associated with”, “is cause of”, “is property of”, “contradict” etc.) among different codes were developed by using the *code link manager*. Categories were formed, and relations among subcategories and categories were built by using the function of *Network*. Having developed most, the researcher exported the code book for further analysis.

3.6 Methods for verification

3.6.1 Triangulation

Triangulation, which refers to the use of multiple data sources, data collection methods and theories to validate research findings, is very useful in qualitative studies to help eliminate bias and detect errors or anomalies (Anderson & Arsenault, 2005). The process of triangulation is employed in the current study.

Firstly, multiple data collection methods were utilized including interview, observation, documents inspection and so on.

Secondly, the data were acquired from multiple sources such as teachers, childcare workers, parents, kindergarten administrators, special educators, to reduce the bias in the data collected.

Thirdly, a quantitative questionnaire was developed, which was later delivered to preschool teachers, in an attempt to triangulate the theory developed with grounded theory approach.

3.6.2 Member checking

Member checking is an important method to strengthen the credibility of a study. In this research, member checking will be carried out in two ways. First, after the interviews, the transcripts of the interviews were provided to the participants to ensure

the accuracy of the transcripts. Second, when the draft of the report was formed, the copy of the draft was provided to participants, and the participants were asked to corroborate or question the inferences, assumptions or emerging theories drawn in the draft.

3.6.3 Audit trail

An audit trail, which refers to a record of the procedures selected, the decision path followed, and sources of evidence used, is utilized to ensure the trackability of data and to maintain the chain-of-evidence, and it provides researchers with a better position to look a trail to look back on the analysis and to defend it (Anderson & Arsenault, 2005). An audit trail was constructed by keeping a careful record of all the raw data, the procedures followed, the decision made, and the memos written, in order to make sure the research process is trackable and rigorous.

3.7 Ethical considerations

Research ethics are indispensable part of research considerations. In this research, the following procedures have been taken to ensure the study ethical.

First of all, all the participants were provided with an informed consent form that described the purpose of the research, the benefits, procedures involved, and the rights of the participants. All the participants were informed and consented to take part in this research. Any recording of conversations or taking of pictures had been approved by the participants.

Second, the participants' right to privacy was respected. They had the right to decide what aspects of their personal opinions, attitudes, doubts and so on could be communicated. Agreement from the participants was acquired before recordings and videotaping.

Third, confidentiality was maintained in this research. The identity of the participants was kept anonymous, and readers of the research were not able to deduce the identity of the participants.

4 RESEARCH RESULTS

With data analysis, the concepts that were developed in the open coding step have been grouped into categories and subcategories. Relations among those concepts, subcategories and categories were explored. With the ongoing process of data analysis, some important themes started to emerge.

In this chapter, the results of the qualitative inquiry are presented by different themes that are closely related to the research questions. The researcher arranges the results into four parts, including (1) current situation and needs of children with ASD in preschool inclusive classrooms, (2) structure of support systems for children with ASD in preschool inclusive classrooms, (3) collaboration between different support providers in support systems, and (4) difficulties faced by support providers in the systems.

Based on the research results presented, the first three research questions have been responded to:

Question 1: What supports do the children with ASD in inclusive classrooms need?

Question 2: What are the structures of the supporting systems constructed for children with ASD in real-life preschool inclusive settings like?

Question 3: What are the functions of each elements of the supporting system for children with ASD in real-life preschool inclusive settings?

To elaborate on each theme, firstly, a synopsis of the ground theory for each part is presented in the form of diagrams. Then, a detailed description of main categories and their sub-categories are discussed.

4.1 Current situation of children with ASD in inclusive settings

4.1.1 *The decision of placement*

The children participated in this research are all registered in regular kindergartens, but some of them have individualized training in institutions or

resource centers.

In the open coding step, different ways of placement were identified, varying from “full-time in regular classroom”, “regular classroom plus weekends in resource center/institution”, “half day in regular classroom plus half day in institution”, and “regular classroom plus one semester in institution”. It shows the different dimensions of the concept “*placement of children with ASD*”. The different decisions of placement form a continuum as illustrated in *Diagram 4.1*.

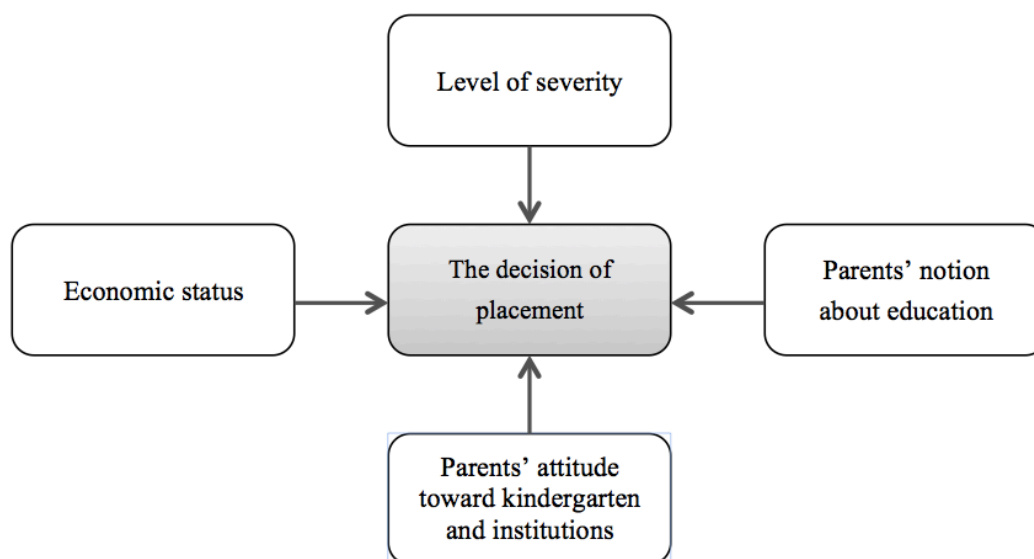
Diagram 4.1 Placement of children with ASD



Education at preschool stage is not compulsory in China, so the placement of the children with ASD mostly depends on the parents’ decisions.

As shown in *Diagram 4.2*, four main concepts (including *level of severity*, *parents’ notion about education*, *parents’ attitude toward kindergarten and institution*, and *economic status*) labeled in open coding step were found to have contributed to the decision of placement in the axial coding process.

Diagram 4.2 Factors influencing the decision of placement



Level of severity

The first factor is the level of severity of the symptoms. In general, the children with ASD who were registered in regular kindergartens were with mild to moderate impairments. For those with severe impairments, the parents might take the children to institutions to get individualized intervention because the children usually could not adapt to the life in kindergartens, and the children might not be admitted to the kindergartens.

Parents' notion about education

The second is the parents' notion about education of the children. It's related to how the parents value the experience of studying in kindergartens and the training in institutions.

Among all the five parents interviewed, one of them believed the individualized training of children's abilities such as cognition, language, communication and so on was more crucial. Another parent mentioned she was very hesitant about the placement. For the other three parents, they valued the experience of studying in kindergartens a lot, because they believed that the children's adaptation to life in kindergartens was beneficial for their future study in primary schools and that the interaction with peers was very helpful. Mother of a child (participant B3) said,

“Entering the kindergarten is to prepare for the study in primary school. If it were not the activities, routines in the kindergarten, like at a certain time, they should do something, the children would not ... He suddenly goes to primary school. He will feel very difficult. Because he studied some rules and routines in the kindergarten, he understands there is something he has to follow. But if you are only trained in institutions, even if the child is trained very well, he cannot adapt to the school life when suddenly enters the school.”

Participant B3 indicated that it's easier for the children with ASD to be included at preschool stage than at primary or secondary stage and they did not want to give up the chance to be included.

Parents' attitude toward kindergarten and institution

The third is the parents' attitude toward studying in kindergartens and institutions. The attitudes were affected by the effectiveness of education in kindergartens and training in institutions.

Two of the parents mentioned the effectiveness of the training in institutions. They believed the training in professional institutions was more effective and helpful, because they could see the evident improvement of the children. Participant B1 whose child had training in the institution said,

“(In the kindergarten) they have so many kids after all, for the one or two kids with special needs, the teachers would not make great change. At least we feel this way... As for the professionals in the institution, we can seek help from them when we have problems. CC was very resistant to strangers, but he is much better now. He was hyper-sensitive to tactile sensation, but now he had improved a lot.”

For some parents, they did not trust the institutions and doubted the professionalism of the teachers in institutions, so they might not choose to train the children in the institutions.

Economic status

Finally, the economic status of the family is also an important factor influencing the parents' decision. The fees in most of the institutions are expensive which are not affordable for many families.

Mother of CC (participant B1) told the researcher,

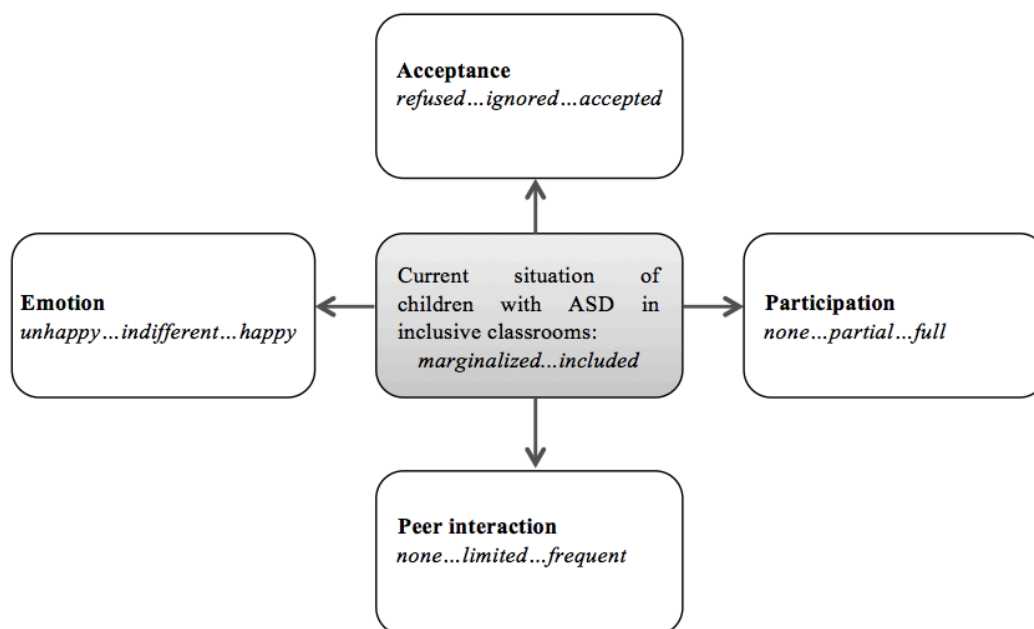
“We have training in the institution every afternoon.... Actually this institution also has their own kindergarten, and they have specialized teachers to provide one-to-one services. But it's too expensive, over 6000 RMB per month. If it were not so expensive, we would have considered letting our kid study here.”

4.1.2 Current situation of children with ASD in inclusive classrooms

By interviewing the preschool teachers and parents and observing in the classrooms, the researcher explored the current situation of children with ASD in inclusive classrooms.

Concepts including “*acceptance*”, “*participation*”, “*peer interaction*” and “*emotion*” were developed during the open coding stage, and properties of these concepts were also analyzed. These three concepts were then categorized as “*current situation of children with ASD in inclusive classrooms*” in the axial coding step, as shown in *Diagram 4.3*.

Diagram 4.3 Current situation of children with ASD in inclusive classrooms



The current situation of children with ASD in inclusive classrooms varies from being marginalized to being included. Data indicate that 60% of the children with ASD were marginalized in the classrooms. Sometime, the children were even been ignored. Just as one expert said during the interview, “it seems that the children with ASD live in a vacuum area in some classrooms”. The word “vacuum” indicates the state of isolation of the children with ASD. There are also data still showing that children with ASD could participate in a few activities to a certain extent.

Acceptance

Acceptance indicates the extent to which the children with ASD were considered as a member of the child-group by teachers and peers. Data show that their acceptance varied from being refused, being ignored to being accepted.

Two of the preschool teachers (participant C1, participant C2) directly expressed that they would not like to accept the children with ASD in their classrooms. Teachers expressed that they did not know the children was autistic when they were admitted to the kindergarten.

Teacher Yang (participant C2): “When he first entered the kindergarten, he seemed a normal kid. Otherwise, for children with this level of disabilities, the kindergarten might refuse to admit him into the kindergarten.”

Teacher Huang (participant C1): “What should we do... Are there any kindergartens specialized for children like him? I don’t want him in the classroom. For me, it means increased working load. It’s annoying. For teachers, we feel pity for the child, but we also feel annoyed to take care of him every day.”

The directors of kindergartens (participant E1, participant E2) also said that they would consider the situation of the children when they admit the children into the kindergartens.

On the contrary, teacher Lin (participant C5) and teacher Li (participant C3) expressed that although they had no experiences of teaching children with ASD, they still accepted them as members of the class. They claimed that the other children in their classrooms were all very kind to the children with ASD.

Participation

Participation refers to the extent to which the children with ASD joint the activities in/out of the classrooms in kindergartens. According to observation and interviews, based on the levels of disability and supports provided, the children had different levels of participation in activities.

Observation record: For child JJ (participant A4), most of the time, he followed the other children going around. In the playground at the physical exercise time, sometimes he would imitate other children's movements, but for most of the time, he either stood still looking at certain directions or making special hand shapes.

When the teacher told stories during the circle time, JJ could hardly sit in his seat and listening to the teacher. He looked at the teacher for several seconds and was immediately distracted by other things in the environment. He could not sit still, but was restless in his chair and romped around.

Observation record: During outdoor exercise time, the teachers organized different physical exercises. Rather than imitating the teachers' movement, CC was totally attracted by the Ping-Pong balls in the boxes hanging on the wall. He did not follow the teachers' instructions, and constantly ran to the wall to get the ball.

His mother dragged him back to the group and led him to join the game. CC could follow at a certain extent but did not understand the rules of the game.

Peer interaction

Peer interaction is another important indicator of the situation of children in inclusive classrooms. For different children, they had different level of peer interaction in the inclusive classrooms.

Observation record: Child JJ (participant A4) seldom initiated interaction or had back-and-forth social interaction with peers. Even when he initiated interactions, he might use ways that could not be understood by other children, such as dragging other children's coats, leaning towards other children and looking at them. Due to the problem behaviors JJ exhibited, other children did not like to play with JJ.

Observation record: As for child YQ (participant A5), sometimes, he could talk to peers, but the conversation was usually very short. Some peers were told by the teachers that they should help YQ, so they would talk to YQ every now and then.

Emotion

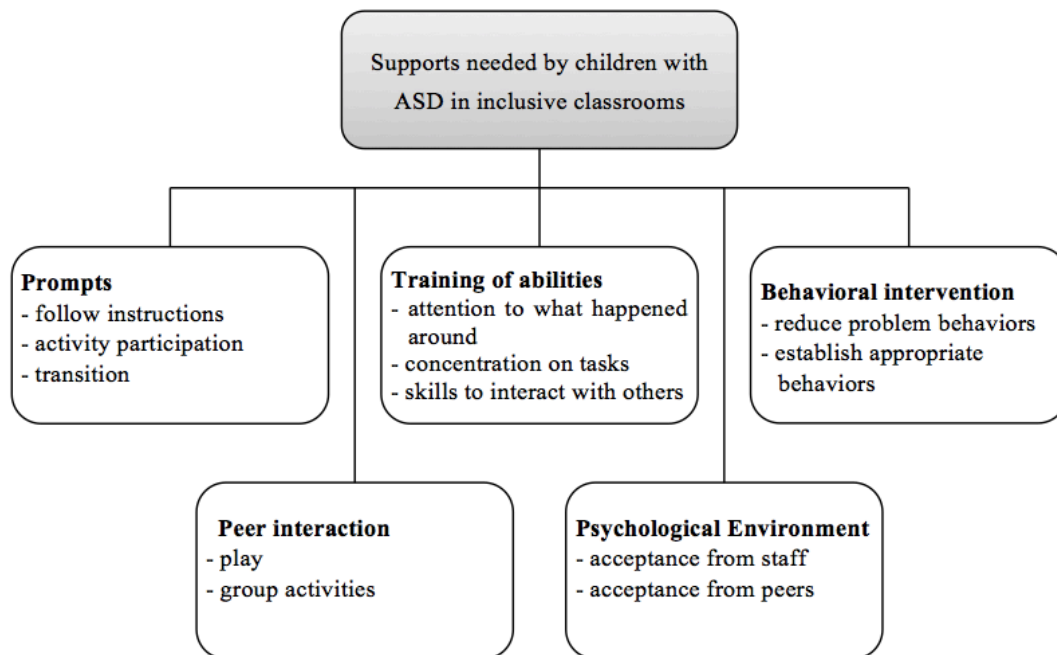
Emotion reflects the feelings and moods of children with ASD in inclusive classrooms. The mother of child JJ (participant B4) and the mother of child CC (participant B1) both reported that their children were very resistant to going to the kindergartens for a long time. They did not have very good time there. JJ's grandmother accompanied him for almost one semester to let him stay in the kindergarten. Child CC (participant A1) could only stay half of the day in the kindergarten and went to the institution for the other half of the day.

Preschool teachers reported that the children with ASD usually seemed indifferent in the environment, and sometimes were unhappy and exhibited problem behaviors. One parent (participant B5) who was interviewed said that their child had very happy life in the kindergarten.

4.1.3 Supports needed by children with ASD in inclusive classrooms

For better inclusion of the children with ASD, appropriate supports are needed. In the open coding phase, by scrutinizing the observation records and interview transcripts, various supports were identified, such as “attention to what happened around”, “prompts for activity participation”, “prompts for transition”, “reduce problem behaviors” and so on. With constant comparison, those supports were later grouped into five categories including: “*training of abilities*”, “*behavioral intervention*”, “*psychological environment*”, “*prompts*”, and “*peer interaction*”. In the axial coding phase, the five categories of supports were all placed under the concept “*supports needed by children with ASD in inclusive classrooms*” as illustrated in *Diagram 4.4*.

Diagram 4.4 Supports needed by children with ASD in inclusive classrooms



Prompts

Prompt refers to gestures, verbal or physical assistances and so on that are applied to help the children with ASD to make correct responding or to appropriately behave. It includes prompts used to help the children follow instruction, to participate in activities, and to transit from one activity to another.

Follow instructions. About 67% (10 out of 15) teachers and childcare workers stated that they had to repeat for several times in order to let the children follow the instructions, and they felt that the children “cannot hear” what they were told. The teachers and childcare workers sometimes had to “physically make the children follow” their instructions.

Activity participation. Just as the difficulties to following instructions, children with ASD also have problems in activity participation. When organizing classroom or outdoor group activities, extra help was needed to help the children to be engaged in the activities.

Transition. Transition from one activity to another was another problem of the children mentioned by preschool teachers and childcare workers. “When the play time

ends, we will have another group activity. For this child, you have to repeat several times to ask the child stop playing and put the toys back to the right place”, said a teacher (participant C1).

Training of abilities

This category refers to the abilities that needed to be developed by the children with ASD in inclusive preschool settings. It includes subcategories as follows.

Attention to what happened around. For most children with ASD, they can hardly notice what happens in the environment, and grasp contextual clues of instances. The preschool teachers found that they had to give additional instructions to the children in order to make them notice the activities being carried out.

Concentration on tasks. Even though the children might notice what happened around, the teachers complained that the children could not keep concentration on the activities and they could be easily distracted by any irrelevant things.

Skills to interact with others. The lack of interesting to other children and the lack of proper skills to interact with others is one of the characteristics of children with ASD. For example, as stated in the previous part, Child JJ (participant A4) seldom initiated interaction or had back-and-forth social interaction with peers. He also could not use proper ways to interact with other children. With proper social skills, the children with ASD can really enjoy the advantages of the inclusive settings.

Behavioral intervention

Behavioral intervention means the application of behavioral intervention strategies for children with ASD in order to help them adapt to the inclusive settings. It consists of two subcategories: reduce problem behaviors and establish appropriate behaviors.

Reduce problem behaviors. Some the children with ASD exhibited problem behaviors in the kindergarten, such as screaming, running around, hiding in a corner, leaving the seats in classes, and touching their own penis in the classroom. The preschool teachers and childcare workers sometimes did not know how to deal with

those situations, and they complained that those problem behaviors had very negative impact on other children.

Establish appropriate behaviors. To learn how to appropriately express their feelings and needs is also important for the children with ASD in inclusive classrooms. Teacher Yang (participant C2) claimed that JJ would scream when he was either very happy or unhappy. She said, “He did not know how to behave appropriately”.

Peer interaction

Peer interaction can provide useful opportunities for children with ASD to practice their social skills. Although preschool teachers and childcare workers reported that the children with ASD would like to play by themselves in most cases, they could have more chances to interact with other children if the peers initiated the interaction. This category includes two subcategories: play and group activities.

Play. Play provides very natural opportunities of social interaction for children. While playing, children are happy and are naturally motivated to interact with each other.

Group activities. In group activities, the children with ASD did not fully engage and seldom had interaction with peers. Peer interaction can provide chances not only for social contact, but also for higher level of activity participation.

Psychological environment

When children with ASD enter kindergartens, they would feel unfamiliar and scared. An open and tolerant environment would provide them with psychological support, which can help them gradually adapt to the unfamiliar environment.

Acceptance from staff. Acceptance from the staff of the kindergartens can largely impact the psychological environment of the class and the kindergarten. Teachers’ attitudes toward the child with ASD can influence the attitudes of other children.

Acceptance from peers. Acceptance from peers can make the child with ASD a member of the group. One of the parents (participant B4) said, “What I’m worried is the harm from peers. The rejection or teasing from peers could be very harmful.”

4.2 Structure of the supporting systems

As for the structure of the supporting systems, emphases have been placed on the internal structure of the supporting systems and on the roles played by different support providers.

In the open coding phase, specific supports provided for the children as well as for other persons involved in the inclusive practices were identified, such as “physical prompts”, “modeling”, “arrangement of the seats”, “positive reinforcement”, “knowledge about children’s development”, “share each other’s feelings” and so on. Those supports were then grouped into larger categories, for example, “prompts”, “behavioral modification”, “information” etc. In the axial coding phase, the supports provided were connected with different support providers and with different support receivers, therefore to illustrate the roles played by each support provider.

4.2.1 Overview of the structure of the supporting systems

Diagram 4.5 shows the structure of the support system for the children with ASD in inclusive classrooms. The socio-ecosystem of the children with ASD in the inclusive context consisted of the *inclusive classroom, the kindergarten, the family, institutions, the resource center, hospitals, government and the society*. These different components were involved in this process at different extents.

Persons involved in the systems provided direct or indirect supports for the children. Supports providers included *preschool teachers, childcare workers, parents, peers, directors of the kindergartens, resource center teachers, other professionals, doctors*, and sometimes *parents associations* and so on.

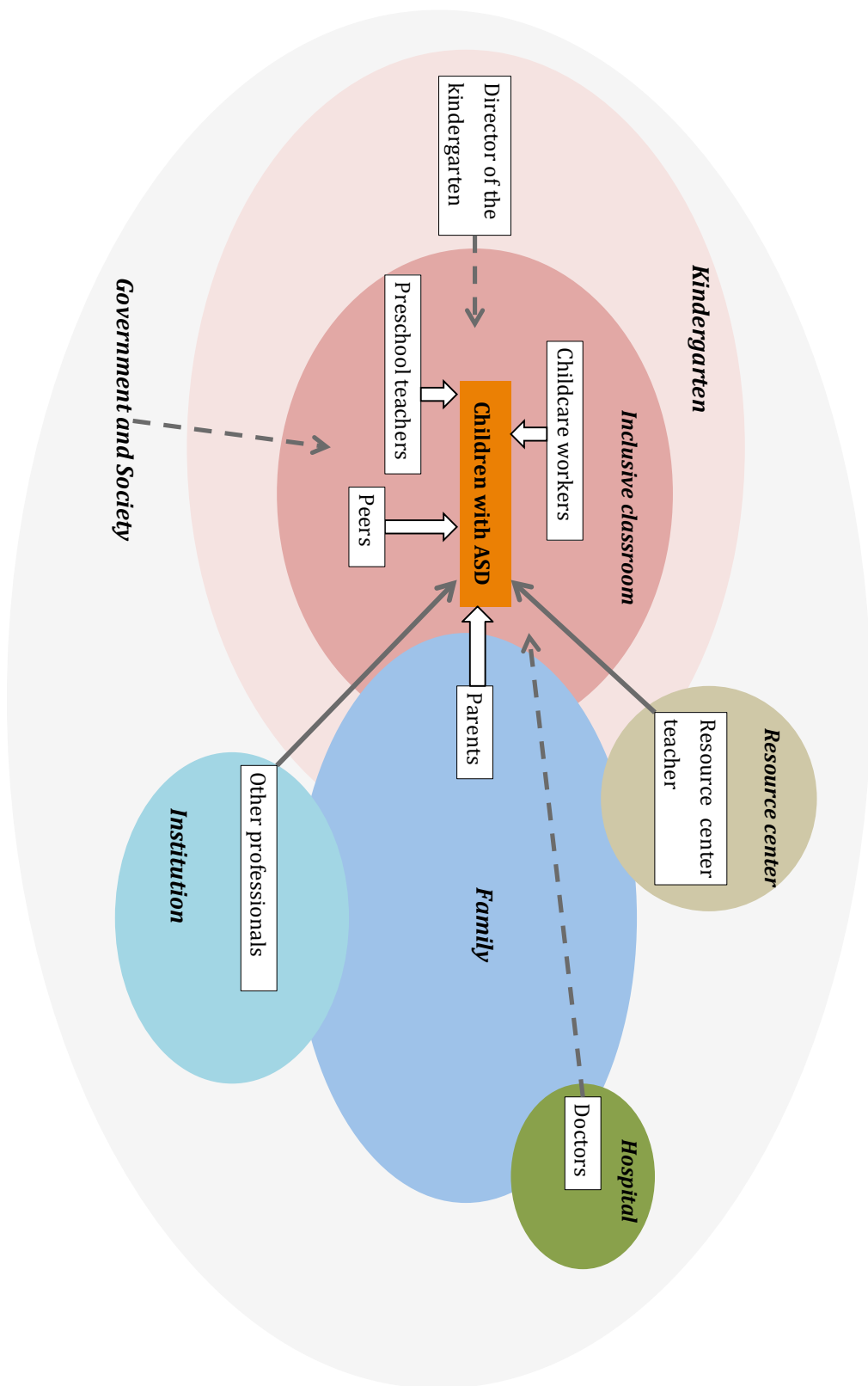


Diagram 4.5 Structure of supporting systems for the preschool inclusion of children with ASD

The *inclusive classrooms* and *kindergartens* are the microsystems where the educational inclusion is mainly carried out. In the classrooms, preschool teachers, childcare workers and peers provided direct supports to children with ASD, such as verbal instructions and physical help. Directors of the kindergartens might indirectly support the inclusion by helping preschool teachers or parents.

Family is another very important microsystem that supports the children with ASD during the process of inclusion. Some parents or grandparents directly supported the inclusion of the children by accompanying the children in the classrooms; the parents also indirectly supported the inclusion by sharing information about the children with teachers and so on. Family also interacted with other microsystems such as institutions, resource centers and hospitals.

Institutions and *resource centers* mainly interacted with the families. Resource room teachers and other professionals offered individual or group training for the children and parents, which indirectly supported the inclusive practices. For example, professionals from institutions may train the child to learn some social skills in order to improve the child's peer interaction in the kindergarten.

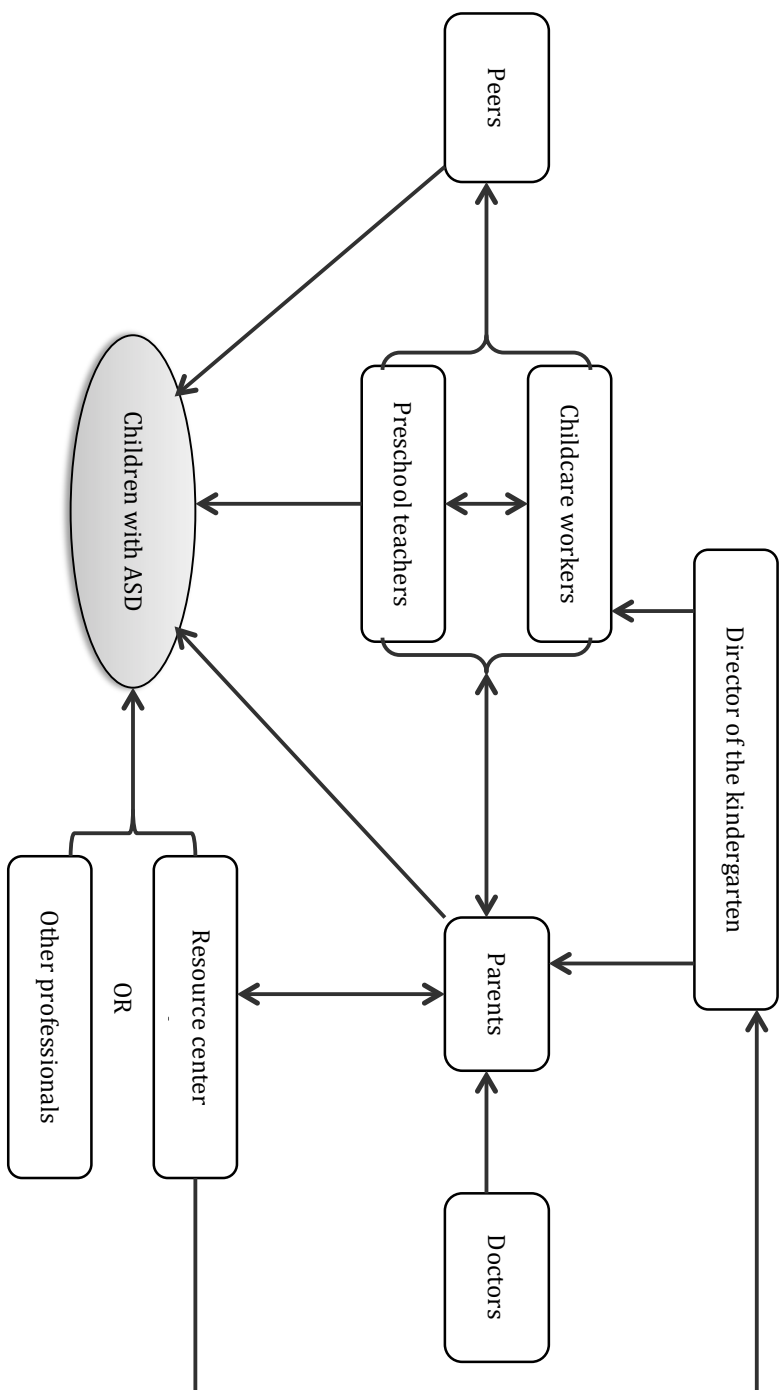
Hospitals mainly interacted with families and seldom had contact with other microsystems shown in the diagram. Doctors usually provide diagnosis for the children.

As for the *government*, they provided indirect supports for the inclusive practices by developing policies and regulations. Sometimes, supports from the government were also provided via the Disabled persons' Federation. The *society*, via mass media and conventional values etc., influenced people's opinions on children with ASD and on the idea of inclusion.

4.2.2 Roles that each support provider plays in supporting systems

Each support provider plays different roles in the system. In the inclusive practices, they not only provide the children with direct or indirect supports, but also offer supports for each other in order to construct a well-structured support system. They were both support providers as well as receivers, as shown in *Diagram 4.6*.

Diagram 4.6 Roles played by support providers in supporting systems



Note: The direction of arrows indicates the provision of supports

Supports provided by preschool teachers

Preschool teacher, as important support providers in inclusive classrooms, played vital roles in the inclusive practice. According to the data, supports provided by preschool teachers varied from limited to comprehensive, and the preschool teachers' attitude toward providing supports also varied from passive to active. The roles that preschool teachers played consist of three categories as presented in the table below.

Table 4.1 Supports provided by preschool teachers

Categories	Subcategories	Descriptions
Supports for children with ASD	Attention	- More attention for the children
	Prompts	- Physical prompts
		- Modeling
		- Verbal prompts
	Environment adjustment	- Arrangement of the seats
		- Create tolerant/warm atmosphere in the classroom
- Teach other children to provide peer support		
Behavioral modification	- Positive reinforcement	
	Teaching adjustment	- Adjustment of task requirements
		- Create chances for the children to perform/participate/interact
Supports for parents of children with ASD	Information	- Awareness of children's problems
		- Information about the children's performances
		- Knowledge about ordinary children's development
	Suggestion	- Suggestions about diagnosis
		- Suggestions about children's study/needed skills
	Emotional supports	- Acceptance of the children
- Reassurance to parents		
Supports for colleagues	Experiences	- Share successful experience with colleagues
		- Share each other's feelings
	Emotional supports	- Encouragement for colleagues

Supports provided by childcare workers

The roles that childcare workers played are illustrated in the following table. It includes: *supports for children with ASD, supports for parents of children with ASD, and supports for colleagues*. Supports provided by different childcare workers also varied from limited to comprehensive and the attitudes ranged from passive to active. Compared with supports provided by preschool teachers, they put more focus on the children’s life in kindergartens, such as eating, drinking, dressing and so on.

Table 4.2 Supports provided by childcare workers

Categories	Subcategories	Descriptions	
Supports for children with ASD	Attention	- More attention for the children	
	Take care of life	- Take care of the children’s life (eating, dressing...)	
		Prompt	- Physical prompts
			- Modeling
	- Verbal prompts		
Environment adjustment	- Teach other children to provide peer support		
	Behavioral modification	- Positive reinforcement	
Supports for parents of children with ASD	Information	- Information about children’s life	
		- Information about children’s performance	
Supports for colleagues	Emotional support	- Share each other’s feelings	
		- Encouragement for colleagues	

Supports provided by peers

According to the interview and observation, preschool teachers and childcare workers might teach other children in the class to help the children with ASD. For example, teacher Li (participant C3) told the researcher:

“He had some interaction and cooperation with peers. It’s different from the past. In the past, he used to play by himself, spinning, spinning his hands, but now he can cooperate. Other children, the children in our class, together with the teachers, provided him with very sweet environment.

Every one loves him. Wherever they have to go, the other children would ask him and lead him by hand.”

Supports provided by peers for the children with ASD are shown in *Table 4.3*.

Table 4.3 Supports provided by peers

Categories	Subcategories	Descriptions
Supports for children with ASD	Prompt	- Physical prompts - Modeling - Verbal prompts
	Interaction	- Play with the children - Initiate interaction to the children - Respond to the children’s initiation of interaction
	Supervision	- Report to teachers about dangerous/forbidden behaviors of the children with ASD
	Environment adjustment	- Show kindness to the children with ASD

Supports provided by directors of kindergartens

The roles that directors of kindergartens played in the supports systems are as shown in the table below.

Table 4.4 Supports provided by directors of kindergartens

Categories	Subcategories	Descriptions
Supports for preschool teachers	Encouragement	- Encourage teachers to love the children
	Requirement	- Require teachers to cooperate with parents
Supports for parents of children with ASD	Admission	- Allow the parents to accompany the children in the kindergartens - Accept some of the parents’ suggestions
	Information	- Provide information about resource centers or professional institutions

The supports provided from the kindergarten level were very limited. The directors usually took a passive role in the practice.

Eighty percent of the teachers expressed that they had no idea about inclusive education, and none of them had received any training about inclusive education or

about children with special needs.

When being asked what supports they had received from the director or from the kindergarten level, the parents indicated that there were few supports provided from the kindergarten level and they also seldom sought help from the directors of the kindergartens.

One parent (participant B3) said,

“If I have to give some supports which are provided by the director of the kindergarten, I would say that maybe her allowing my accompanying in the kindergarten could be counted as one”.

YQ’s mother (participant B5) also reported that:

“Our child, if we consider his age, should enter the higher grade. However, having considered his situation, the director allowed him to stay at the same grade. I reckon this could be a form of support.”

Supports provided by parents of children with ASD

Parents of children with ASD are very important supports providers in the inclusive practices for children with ASD. *Table 4.5* has presented the roles that the parents played.

The parents might enter the kindergarten and provide direct supports in the inclusive classrooms; 80% of the parents interviewed had the experience of accompanying the children in the classroom. They might also teach the children at home in order to promote the children’s development and to master skills that are necessary for their inclusion.

The parents also supported teachers by providing them with the information about children’s performance at home, and sometimes they might tell the preschool teachers about intervention strategies they learnt from other professionals.

Table 4.5 Supports provided by parents of children with ASD

Categories	Subcategories	Descriptions
Supports for children with ASD	Accompany	- Accompany the children in the kindergarten
		- Accompany the children during the training in institutions/resource centers
	Prompt	- Physical prompts
		- Modeling
		- Verbal prompts
	Interaction	- Communicate with children at home
		- Interact with children at home
	Environment adjustment	- Provide warm family environment
		- Arrangements of family activities, such as outdoor exercise, travelling etc.
	Home training	- Provide chances to learn and reinforce in natural life
- Individualized training at home		
Supports for preschool teachers	Information	- Information about children's performance at home
	Suggestion	- Suggestions about the intervention for the children from resource center teachers/professionals
	Support for teacher's work	- Actively participate in kindergarten's activities
Supports for resource center teachers/professionals	Information	- Information about children's performance at home
	Assistance	- Assist the teachers/professionals during the training

Supports provided by professionals from institutions

The professionals in institutions usually include special education teachers, psychological consultant, speech therapist and so on. The roles that the professionals from institutions played are illustrated as below.

Table 4.6 Supports provided by professionals from institutions

Categories	Subcategories		Descriptions
Supports for children with ASD	Assessment	-	Educational/developmental assessment
	Individualized intervention	-	Individualized intervention: cognition, social interaction, communication, gross/fine motor skills...
Supports for parents of children with ASD	Knowledge of children with ASD	-	Interpretation of children’s current developmental level
	Instruction for home training Strategies	-	Suggestions for training at home Solve problems emerging together with parents
	Emotional support	-	Provide emotional support for parents, such as explaining the children’s improvement

Supports provided by resource center teachers

As for resource center teachers, they also played multiple roles in the practice of inclusion, which covers three main categories: *supports for children with ASD*, *supports for parents of children with ASD*, and *supports for preschool teachers*.

Table 4.7 Supports provided by resource center teachers

Categories	Subcategories		Descriptions
Supports for children with ASD	Assessment	-	Educational/developmental assessment
	Individualized Intervention	-	Cognition, social interaction, communication, gross/fine motor skills, play skills...
		-	Group activities for children
Supports for parents of children with ASD	Emotional support	-	Psychological interventions for parents: self-identity, personal/career life planning, pressure/stress release...
	Educational philosophy	-	Attitudes of caring and educating children with ASD
	Knowledge of children with ASD	-	Interpretation of children’s current developmental level
	Strategies	-	Interpretation of children’s needs Ways to communicate with children with ASD

		-	Home training plans/suggestions
	Information	-	Information about resources parents can seek for
Supports for preschool teachers	Knowledge of inclusive education	-	Introduction of inclusive education
		-	Milestones of children’s development
	Knowledge of children with ASD	-	Characteristics of children with SEN
		-	Potential special educational needs of children with SEN
Strategies	-	Useful teaching methods	
		-	Curriculum adaptation

Supports provided by doctors

As for doctors, they provided very limited supports for the children in the context of inclusive education, for example, diagnosis. Sometimes the doctors would suggest parents to find some professional institutions for the children’s training. The doctors were not actively involved in the process of inclusive education. They only provide one-way service of diagnosis for the families, as shown in *Table 4.8*.

Table 4.8 Supports provided by doctors

Categories	Subcategories		Descriptions
Supports for children with ASD	Assessment	-	Developmental assessment
	Diagnosis	-	Diagnosis of ASD
		-	Medical examination
Supports for parents of children with ASD	Suggestion	-	Suggest parents to find professional institutions

Supports provided by the government

As for the government, they provided indirect supports for the inclusive practices by developing policies and regulations to ensure the educational rights of children with disabilities and to advocate inclusive education. However, at the preschool stage, there are no detailed and practical guidelines for the implementation of inclusive education.

Table 4.9 Supports provided by the government

Categories	Descriptions
Policy	- Advocating inclusive education in policies
Regulation	- Ensure the educational rights of children with ASD - Advocating inclusive education in regulations

Supports provided by society

Society affected the inclusive practice indirectly through ways presented in *Table 4.10*. The conventional values of the society affected people’s view of inclusive education and their opinions on children with ASD; the mass media also placed great influence on the public; some parents’ association might provide supports for parents of children with ASD.

Table 4.10 Supports provided by society

Categories	Descriptions
Knowledge about children with ASD	- Promote understanding of children with ASD through mass media - Organized activities on the World Autism Awareness Day (2 nd April)
Knowledge about inclusive education	- Promote inclusive education through mass media, such as producing documentary films about inclusive education
Information	- Provide information about resources parents can seek for through parents' groups
Emotional support	- Provide emotional support through parents’ groups

4.3 Collaboration between different support providers in the systems

Preschool inclusion emphasizes early comprehensive intervention of young children, which requires a trans-disciplinary team to provide services. Collaboration, underlining different professionals working together on a common problem, is critical for the success of early childhood inclusion (Allen & Cowdery, 2011). Different parties in the inclusive practice, such as preschool teachers, childcare workers, parents, special education professionals and so on, should work collaboratively with each other to optimize the functioning of the support system, in order to provide adequate supports for the children with ASD and to ensure they can have access to productive

learning environments.

To analyze the collaboration among support providers, in the open coding phase, various concepts related with the collaboration among support providers were developed, for example, “*face-to-face communication*”, “*communication via phone calls*”, “*efficient collaboration*”, “*inefficient collaboration*”, “*information about personal background*”, “*information exchange about children’s performance*”, “*collaborative intervention*”, “*emotional support*”, “*attitudes toward collaboration*”, “*perception of roles in collaboration*” and so on and so forth.

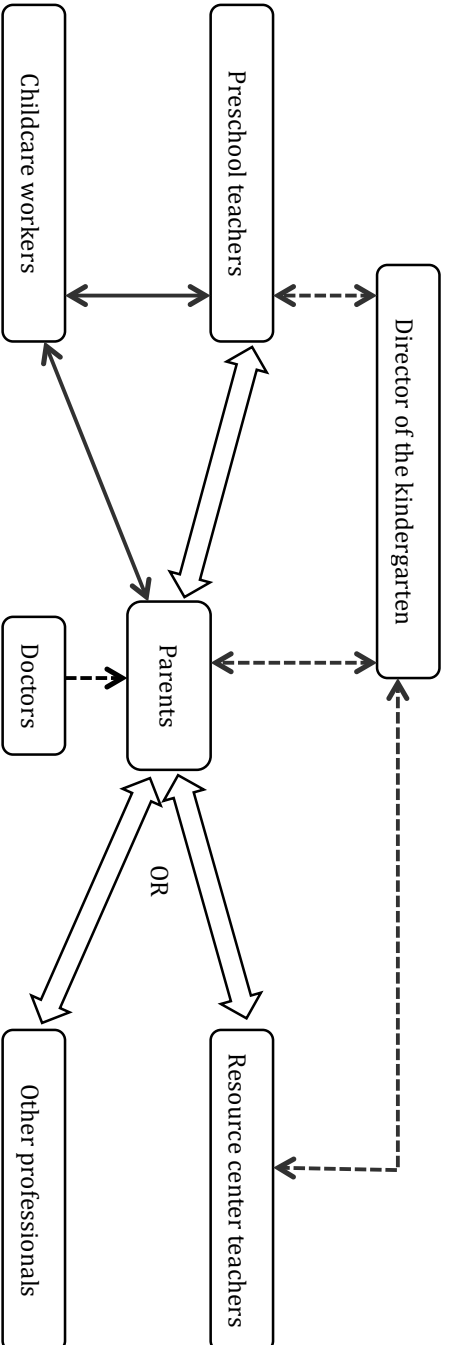
Then the researcher applied the strategy of constant comparison, and sorted those concepts into different categories, including: “*ways of communication*”, “*frequencies of collaboration*”, “*content/ways of collaboration*”, “*effectiveness of collaboration*”, “*factors influencing collaboration*” and so on.

In axial coding phase, those categories were linked with different support providers; the collaborative relationship among support providers and the relations of those concepts, subcategories and categories were explored, as shown in the following diagrams.

4.3.1 Overview of the collaboration between support providers

According to the data collected, the collaboration between different support providers forms a network within the support systems. *Diagram 4.7* illustrates the actual collaboration among main support providers, including preschool teachers, childcare workers, directors of the kindergartens, parents, resource center teachers, other professionals and doctors. It’s worth mentioning that not all the support providers (such as peers) have been included in the diagram due to lack of involvement in the collaborative practice for inclusion.

Diagram 4.7 Collaboration between main support providers in the supporting systems



Properties of the collaboration:

- Ways of communication: face-to-face, phone call, phone message, chat software...
- Frequencies of collaboration: (- +)
- Content/ways of collaboration: (- +)
- Effectiveness of collaboration: (- +)

Note: (1) Different arrows represent different extents of collaboration, with the wider arrow indicating collaboration at higher level of intensity and scope and the arrow with dashed line indicating collaboration at the lowest level of intensity and scope. (2) The directions of the arrows indicate the collaboration is unidirectional or bidirectional.

In the **central part** of the diagram is an important component “**parents**”. The position of “parents” in the diagram indicates the roles that parents played in the systems. Parents interacted with preschool teachers, childcare workers, directors of kindergartens, other professionals or resource center teachers. Among those interactions, the collaboration of “*parents-preschool teachers*” and “*parents-resource center teachers/other professionals*” forms very critical relationships in the systems, because according to the data collected, these two kinds of collaboration were the most active relationships in the systems and had very significant impact on the implementation of inclusion.

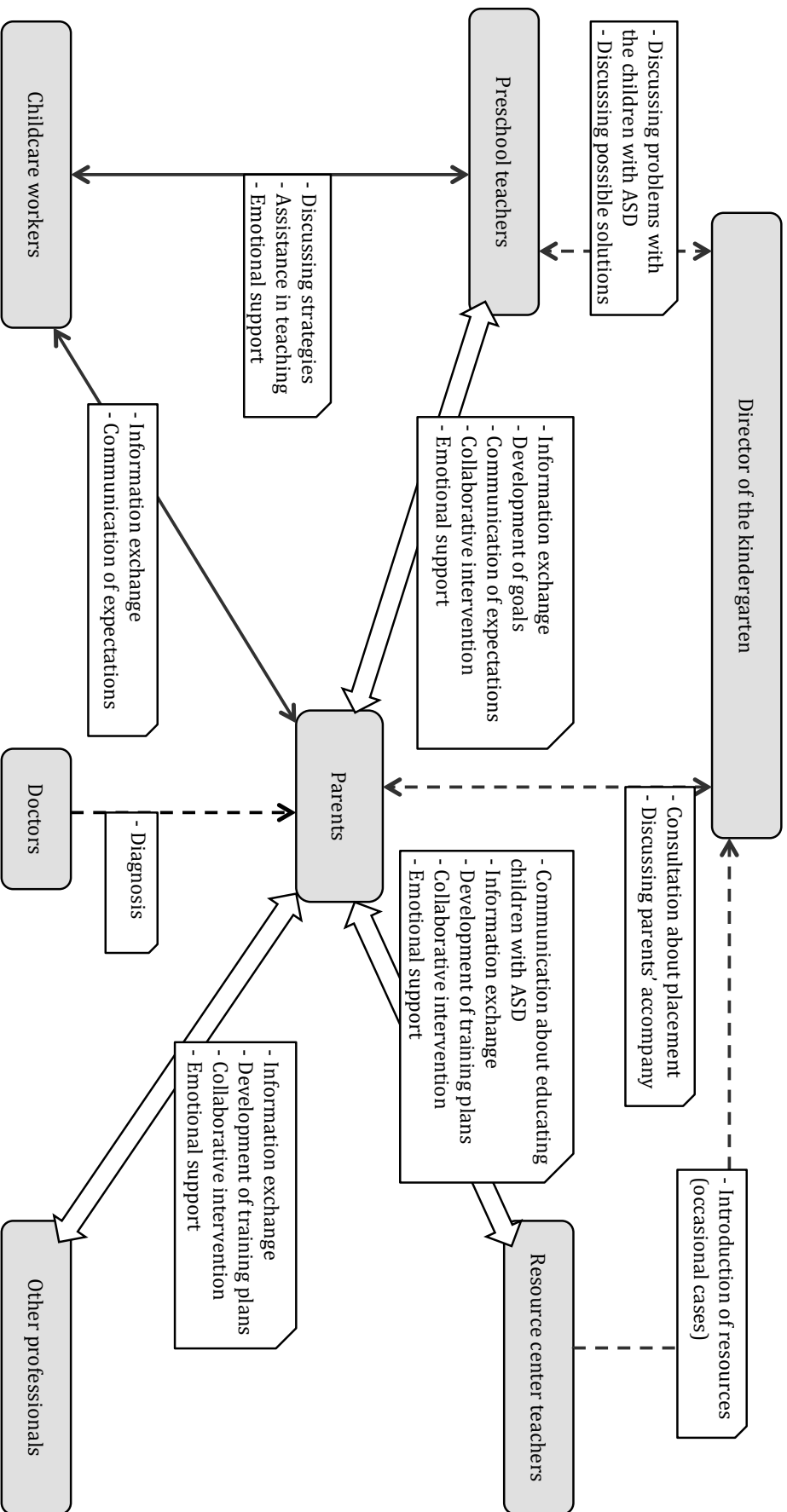
Parents also interacted with childcare workers, directors of kindergartens and doctors, but the frequency and scope of the collaboration were much less than parents’ collaboration with preschool teachers and other professionals/resource center teachers.

There was also collaboration between preschool teachers and childcare workers, between preschool teachers and directors of kindergartens. In very seldom cases, resource center teachers might interact with directors of kindergartens, but the collaboration was also limited in terms of frequency and scope.

Based on the data collected, the collaboration between support providers varies in term of *ways of communication, frequencies of collaboration, content/ways of collaboration, and effectiveness of the collaboration*. For example, some parents had better collaboration with professional from institutions: they frequently communicated with each other, exchanged information and ideas, figured out plans to help the children and worked together, and both parties expressed that their collaboration was effective and efficient. However, for some other parents, it might be the opposite situation.

Diagram 4.8 shows the content of collaboration between main support providers in the supporting systems. In the following part, main collaborations between some of the major support providers will be elaborated.

Diagram 4.8 Content of collaboration between main support providers in the system



4.3.2 Collaboration between parents and preschool teachers

In preschool inclusive context, children with ASD mostly stay in inclusive classrooms, so preschool teachers are one of the most important support providers in the environment. The collaboration between parents and preschool teachers is of great significance

4.3.2.1 Content of collaboration between parents and preschool teachers

According to interviews with parents and preschool teachers, the content of collaboration covers several aspects, as shown in *Table 4.11*.

Table 4.11 Content of collaboration between parents and preschool teachers

Categories	Descriptions
Information exchange	- Personal background
	- Children’s performance at home
	- Children’s performance in the kindergarten
Development of goals	- Abilities needed to be developed
	- Expected behaviors of the children
Communication of expectations	- Parent’s expectations for teachers
	- Teacher’s expectations for parents
Collaborative intervention	- Intervene in kindergarten and at home
Emotional support	- Emotional support from preschool teachers for parents

Information exchange

Exchange of information about the children was the most frequently utilized way of collaboration between parents and preschool teachers.

Parents knew their children best; they possessed the most comprehensive information about the children. The teachers would ask the parents about the children’s information, such as medical histories, any health problems, and the main caregivers at home and so on. The parents would also provide information about children’s performance at home, such as the progress of children’s self-care abilities, the improvement made recently, problems the parents found and so on. The teachers

usually would tell the parents about the children's performance in the kindergarten, for example, daily routines, the activity participation, peer interaction, and some problem behaviors.

Development of goals

Parents and preschool teachers would also discuss with each other about their expectations of the children, the goals for the children to meet. For example, based on the strengths and weaknesses of the children, some abilities should be trained in the kindergarten or at home, so the children could be better included in the classroom. Some children had challenging behaviors which might make him be rejected by other children, so the teacher would tell the parents what kind of behaviors were expected of the children.

Communication of expectations

Communicating expectations for each other was another important aspect of parent-preschool teacher collaboration.

Usually parents had more expectations for preschool teachers, such as more attention for the children, extra instructions or reminding, more patience, to stop some problem or dangerous behaviors of the children, to build a tolerant and warm atmosphere in the class, to stop potential bullying or discrimination from other children, to inform parents about the children's problems and so on. For example, a mother (participant B4) whose child had problem behaviors hoped the preschool teachers could give more attention to the child and stop him when he exhibits problem behaviors. In the interview, she said:

“I think, at least in the class, when the child is distracted, or has other problems (touching his penis), the teachers, at least, should remind the child. What I cannot accept most is that the teachers let him be, ignore him. I think it's very bad for the child. I send my child to the kindergarten, because I hope he can receive education; but the teachers' ignorance does not give him any education. It's not right.”

Sometimes, the parents would tell the teachers what they hoped the teachers could do when the child exhibited some behaviors. For example, YQ's mother (participant B5) said she did not want let the child squat alone in a corner and play by himself, and she hoped the teachers could pull him up and take him back to the group.

As for the preschool teachers' expectation for parents, it includes parents' accompanying in the kindergarten, appropriate training at home, an open attitude to the children's problems, and taking the children to institutions to receive professional interventions.

Teachers complained that they could hardly give the children with ASD much attention due to the big number of children in the classroom, so they hoped the parents could accompany the children in the kindergarten, especially for those with problem behaviors. They believed that the parents' accompanying could largely reduce their pressure to take care of the children, and that this was a good way to better support the children in the classroom.

The preschool teachers also expressed that they had neither knowledge nor experience to teach children with special needs. For children with ASD, they did not know why it happened and how to deal with it. They complained that the children did not talk and gave no response to their instructions and that some of them had many problem behaviors such as screaming, hitting other children etc., and the teachers did not know how to handle those situations. Therefore, they hoped the parents could face the problems and they might suggest the parents to take the children to professional institutions.

Collaborative intervention

In some cases, the parents and preschool teachers worked together to provide intervention for the children. For example, YQ (participant A5) had intervention in the resource center, and the resource teacher gave the parents a list of skill for the child to practice. The parents communicated with preschool teachers, and they tried to give the child chances to practice both in the kindergarten and at home. Sometimes the preschool teacher would also give the parents some suggestions:

“When they felt there was something wrong with the child recently, or something different, I would tell them (some suggestions), and then they would work on this direction, to cooperate with teachers...”

Emotional support

Emotional support is another way of collaboration between parents and preschool teachers, but it depends on the relationship between the two parties. For parents of children with ASD, the acceptance and concerns from teachers could give them great comfort and emotional support. As a mother (participant B5) said,

“After the diagnosis, my husband went to the kindergarten to communicate with teachers about the child’s situation. The emotional supports from the kindergarten gave us great motivation for all the efforts we made afterwards.

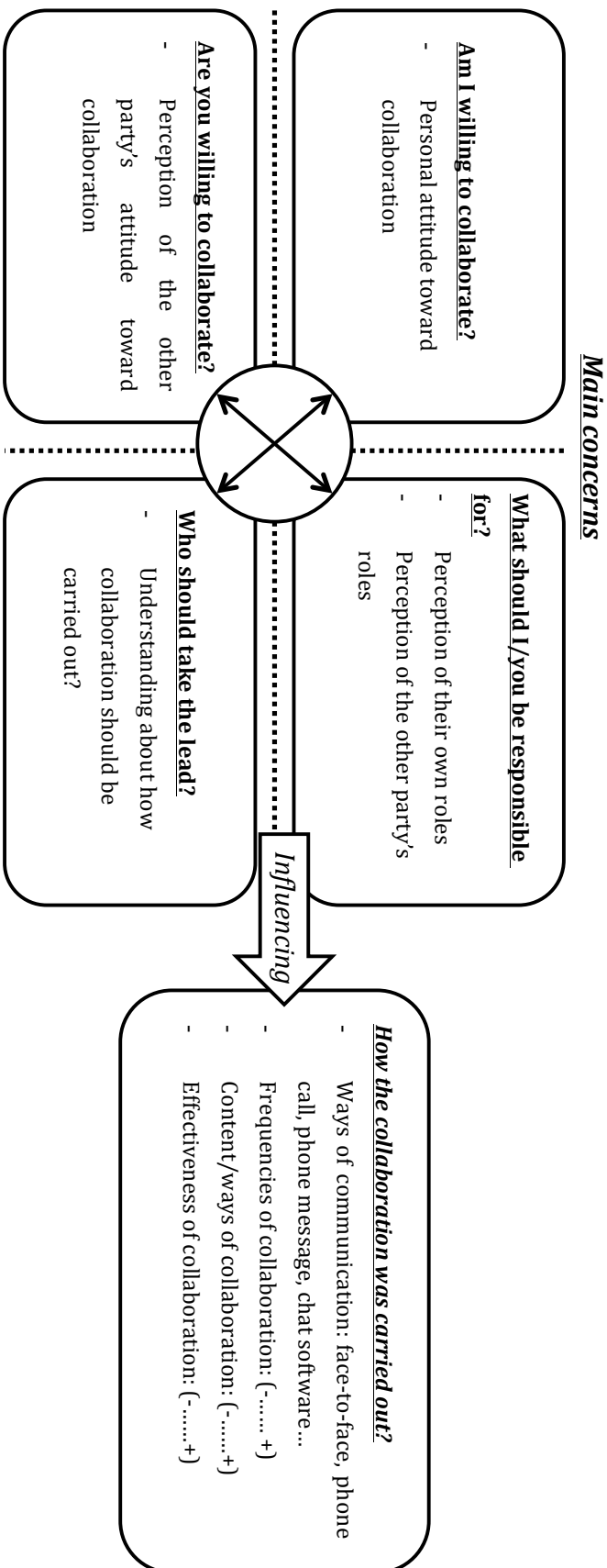
The open and receptive attitudes of the preschool teachers for our child made me feel not so lonely and pathetic. At first (after diagnosis), I could not go out to meet any people. I was crying all day. My husband and I even planed to leave this place. However, now we look back at those days, and I feel we are lucky because everything went smoothly. Even if it were not to get any better, I believe we could have the courage to face the worst.”

4.3.2.2 Factors influencing the collaboration between parents and preschool teachers

The collaboration between parents and preschool teachers varied in terms of the ways of communication, frequencies of collaboration, content/ways of collaboration, and effectiveness of collaboration.

Various factors had influence on the collaborative process, and those factors were sorted into four main categories. In axial coding phase, the researcher further explored the relations of these factors, and the ways in which the factors influenced the collaboration practice, as presented in *Diagram 4.9*.

Diagram 4.9 Influencing factors of collaboration between parents and preschool teachers



These four main categories of influencing factors were also major concerns of preschool teachers and parents, which interacted with each other and jointly influenced parents' and preschool teachers' behaviors in collaboration.

Am I willing to collaborate?

First of all, am I willing to collaborate? This category indicates an important element that underlies the practice of collaboration, that is, personal attitudes toward collaboration.

For **preschool teachers**, their personal attitude toward collaborating varies from very passive to active. For instance, according to the observation, the researcher found teacher Huang (participant C1) was very passive to collaboration and sometimes even showed to be resistant.

Observation record: When the teacher was told that the mother of the child would come to the kindergarten to discuss what could be done to help the child, the preschool teacher looked very resistant. She complained that there were many difficulties and she could do nothing. However, when the parent arrived, she still said that she would try to cooperate in front of the parent.

Conversely, some teachers were very active to communicate with parents and tried to cooperate. Teacher Li (participant C3) said she had very good communication with parents of the child with ASD in her class. She told the researcher that she had learnt a lot from the mother, such as how to communicate with the child, how to let the child interact with others, and she would actively use the skills she learnt to help the child.

By analyzing the data, the preschool teachers' attitude toward collaboration was affected by their *level of professionalism, preschool teachers' attitude toward the children with ASD, the personal relationship with the parents.*

First, the level of professionalism largely influenced the way in which the teachers understood their responsibility. The more professional the teachers were, it's more likely for them to conduct collaborative practices.

Second, including children with ASD posed great challenges for teachers. Teachers' attitudes toward the children also affected their willingness to collaborate with the parents. For some teachers, they did not know how to deal with those challenges and their efforts did not come to any achievement, so they might gradually lose the motivation. In addition, a teacher (participant C1) complained that the child often created chaos in the classroom and provided bad demonstration for other children, so the teacher held very negative attitude toward the child and was very passive in collaboration.

Third, their personal relationship is another important factor. A parent (participant B4), in the interview, compared the differences in communication with two preschool teachers both of whom taught her child in the kindergarten. She stated that she had better personal relationship with one of the teachers because they lived close to each other and they met very often. Therefore, she claimed that they had fewer problems in communicating with each other and they worked together more efficiently.

As for parents, their attitude toward collaboration with preschool teachers also varies from passive to active. What is different from the teachers' attitude is that most of them were willing to collaborate. For example, the parents would actively share what the children did at home. A teacher (participant C5) told the researcher an instance that once she gave the parent a list of milestones of children's development, and the parents actively trained their children at home according to the list.

Are you willing to collaborate?

The second category is "are you willing to collaborate". It refers to the perception of the other party's attitude toward collaboration. The positive feedback from the other party in the process of collaboration could offer people with motivation for further collaborative practices, and vice versa.

Teacher Li (participant C3) introduced her experience of collaborating with the parents of the child.

"After diagnosis, the mother took the child to Beijing (to have training in

an institution) for one semester, and during that time, she kept contact with us.....

When they came back, she accompanied the child in the classroom, and she told us what to do while talking to the child..... She worked for the railway company, as long as she had time, for example, when she was off-duty or after a night shift, she came to the kindergarten and accompanied the child. During the four years, we have been deeply touched by the mother. She is great.

The parents did not give up, so why should I?"

However, some of them complained that the teachers were very passive to communicate and cooperate with them. Their understanding of the other party's attitude affected their expectations for the collaboration. During the interview, JJ's mother (participant B4) showed a very negative attitude when talking about their relationship with the preschool teachers, and had fewer expectations for the preschool teachers.

"I think the teachers should do at least three things: (1) to stop any harm from peers, (2) to remind the child when he is distracted, and (3) to be patient and give him chances to answer questions. Those are the main requirements. I would not ask for more, because I know they cannot do any more."

On the other hand, the preschool teachers of child JJ (participant C1, participant C2) complained that the parents did not show a very active and open attitude during their communication. Both of the preschool teachers of the class claimed that the parents did not admit that their child is different from other children, so they also felt difficult to communicate with the parents.

Teacher Yang: "His mother did not accept the fact that the child is sick, and thought he was normal. She believed he was just a little bit introvert and did not like to play with other children."

Teacher Huang: "Now she still believes so. We also cannot tell her straight forward that your child is autistic. We can just say he is little

different... Every one is for the child's good, but his mother did not admit the fact."

Teacher Huang: "We tried to communicate with the parents for several times (suggesting the parents to take the child to professional institutions). The parents did not pay much attention to it."

The perception of the other party's attitude is also closely related to the first theme discussed above, personal attitudes toward collaboration. Collaboration is an interactive and mutual process. Either party's passive or active attitude in the practice could have impact on the other.

What should I/you be responsible for?

The third category is what should I/you be responsible for. It indicates parents' and preschool teachers' perceptions of both parties' roles in collaboration. If there are more agreements on the roles of each party, there will be fewer problems. However, if they do not have much consensus between parents and preschool teachers, the collaboration could become complicated.

Based on the data collected, the preschool teachers' perceptions of their and parents' roles have been summarized in the table below.

Table 4.12 Preschool teachers' perceptions of their roles and of parents' roles

Preschool teachers' roles	Parents' roles
- Ensure the safety of the children	- Be open to the communication with teachers
- Look after the children for daily routines	- Accompany the children in the kindergarten when necessary
- Inform parents about the children's performance	- Seek for professional institutions to provide intervention for the children
- Love the children	- Provide consistent education for the children at home
- Extra instructions for the children	
- Stop any problem/dangerous behavior of the children	
- Stop any conflicts among children	
- Try to include the children into activities	
- Try to provide opportunities for the children to perform	

Not every preschool teacher could adequately play all of their roles as they perceived in actual inclusive practices. Many teachers, especially those who had no parents accompanying the children in the kindergarten, reported that they were faced by many obstacles, for example, the large size of the class, the lack of knowledge and skills to help the children with ASD.

For parents, their perceptions of each other's roles had slightly different focuses, as shown in the following table.

Table 4.13 Parents' perceptions of their roles and of preschool teachers' roles

Preschool teachers' roles	Parents' roles
- More attention for the children	- Take care of the children after school
- Extra instructions for the children	- Accompany the children after school
- More patience for the children	- Provide opportunities for the children to develop and practice necessary skills
- Stop problem/dangerous behaviors of the children	- Accompany the children in the kindergarten when necessary
- Build a tolerant and warm atmosphere in the class	- Seek for professional institutions to provide intervention for the children
- Do no discriminate the children	- Give the children a warm and full-of-love family environment
- Stop potential bullying or discrimination from other children	
- Inform parents about the children's performance	
- Look after the children for daily routines	
- Include the children into activities	
- Provide opportunities for the children to perform	

For teachers, the safety of the children is their first priority. Especially for those with problem behaviors, teachers and childcare workers had to keep an eye on the children. For parents, except for safety, they expected that their children could be educated in the kindergarten and could interact with peers. They were worrying about whether their children were discriminated, how they performed in the kindergarten and so on. Therefore, there might be divergences of opinions between parents and preschool teachers in the process of collaboration.

In fact, 80% of the parents (four out of five) mentioned that they could

understand the difficulties facing the preschool teachers and they did not require the teachers to fully perform every role in the table.

Category: Who should take the lead?

Forth, who should take the lead? In the process of collaboration between parents and preschool teachers, another concern is who is going to take the leading role. This is also related to the expertise of the preschool teachers.

For teachers, they have much knowledge and experiences of teaching preschool children. They are supposed to provide professional information and advices for parents. However, almost all the preschool teachers reported that they had little knowledge or skills to teach children with ASD. Therefore, in real practices, without external supports, many of them failed to take the professional roles and were busy coping with all the challenges brought about by the children with ASD.

Parents, on the other hand, had many expectations for the preschool teachers. They would like to communicate with them about what they could do to help the children adapt to the life in the kindergartens. Some teachers would accept the parents' suggestions, but some of them might feel offended and annoyed.

Observation record: JJ did not nap in the afternoon in the kindergarten.

During the two hours' napping time, the child just lay on the bed, playing by himself, making noises or touching his penis. The preschool teachers and childcare workers (participant C1, participant C2, participant D1) tried many methods to let the child sleep, but had no effects.

Then the parents suggested the teachers to give the child some books to read, but the child only tore the paper off. Later, the parents suggested that let the child play toys in the classroom during the napping time, but the teachers felt very reluctant because they had no spare hand to look after the kid.

The preschool teachers reported they felt unhappy about the parents always tell them what to do. They argued that the parents did not know the real situation of the class.

These above mentioned factors interacted with each other and jointly influenced the practice of collaboration between parents and preschool teachers.

4.3.3 Collaboration between parents and other professionals/resource center teachers

In preschool stage, there are no special education teachers or resource teachers in the kindergartens, so the parents usually had to seek for resources outside of the kindergartens in order to provide more specialized intervention for their children with ASD. The “parents-other professionals from the institutions collaboration” and “parents-resource center teachers collaboration” played critical roles in preschool inclusive practices.

4.3.3.1 Content of collaboration between parents and other professionals from institutions

The content of collaboration between parents and other professionals from institutions is illustrated in Table 4.14.

Table 4.14 Content of collaboration between parents and other professionals

Categories	Descriptions
Information exchange	<ul style="list-style-type: none"> - Children’s performance during the training in the institutions - Children’s performance at home - Children’s performance in the kindergarten
Development of training plans	<ul style="list-style-type: none"> - Interpretation of children’s current developmental level - Analyzing the needs of the children - Discussion about training plans for the children
Collaborative intervention	<ul style="list-style-type: none"> - Parents’ assistance in training in the institution - Professionals give home training plans for parents - Parents train the children at home based on training plans - Professionals provide suggestions to parents about cooperation from kindergartens - Solve problems together with parents
Emotional support	<ul style="list-style-type: none"> - Understanding of children’s improvement - Encouraging parents to be patient

Information exchange

Information exchange was very basic way of collaboration. The parents shared the performance of the children with ASD either at home or in the kindergarten, and the professionals in the institutions explained the performance of the children during the individualized training.

“Information about the child from the parents usually is very prompt,” said a professional (participant G1) in an institution. Every time when the parent (participant B1) took the children to the institutions, they would have face-to-face communication.

Development of training plans

Together with the parents, the professionals in the institution would analyze the performance of the children in the training, the needs of the children, in order to develop appropriate training plans for the children.

After each session of intervention, the professional explained the performance of the children to the parents, and they would discuss what the children can do at home, and try to work out the schedules for home training and practice.

Collaborative intervention

During the intervention in institutions, the parents usually observed in the training room and sometimes assisted the professionals in some activities. CC’s mother (participant B1) accompanied her child during the training in the institution. Teacher Xiong stated that as long as the parents would not interfere in the training, they would suggest the parents accompany the children and observe. CC’s mother said she also had to assist the teacher in activities such as sensory integration training.

As for training at home, the parents would carry out intervention according the home training schedule in order to make the children practice and generalize new skills.

When there were any problems emerging, the parents sought help from the professionals, and they solved the problems together. Teacher Xiong (participant G1) said,

“As long as there are some problems they face, for example, in the kindergarten, the parents will come and discuss with us. Then we will figure out some possible strategies to solve the problems, and may also try to do something with the other children in the kindergarten.”

Emotional support

The professionals in the institution would explain the improvement of the children for parents. They would also reassure the parents about the children’s development and encourage the parent to be patient when no obvious progress was made by the children. Teacher Xiong (participant G1), who provided individualized intervention for CC said that,

“The improvement of the child is not very fast, because the development of the child is a bit like spiral escalation. If the child is making constant progress, of course, the parents and teachers are very glad. However, if the child is just at a lagging or even dropping period, the teachers should have a very steady attitude to communicate with parents. We should be patient, and adjust our pace.”

4.3.3.2 Content of collaboration between parents and resource center teachers

Currently, in China, not so many resource centers have started to provide services for children at the preschool stage. The resource center involved in this research was carrying out a program which was aimed to provide services for children with special needs at the preschool age. This program was funded by the organization —*Save the Children*, so it’s free for the families to access.

The resource center developed systematic plans for the families with children with special educational needs, including **individualized intervention** for children with SEN and **workshops for parents**. The parents took the children to the resource center every Saturday. One of the parents accompanied the child in the individualized training, and the other participated in the parents’ workshop.

Teachers in the resource center believed the parents’ participant and training

were an indispensable part of the intervention. One resource center teacher said, “We’ve found that if we do not include parents in the intervention, many problems are still left unsolved; having been trained properly, the parents can cooperate with resource center teachers to provide more appropriate supports for their children.”

During the implementation of the program, collaboration between parents of children with ASD and resource center teachers was carried out. The content of collaboration between the two parties is illustrated in *Table 4.15*.

Table 4.15 Content of collaboration between parents and resource center teachers

Categories	Subcategories
Communication about educating children with ASD	<ul style="list-style-type: none"> - Attitudes of caring and educating children with ASD - The characteristics of children with ASD - Strategies to educate children with ASD - The importance of inclusion
Information exchange	<ul style="list-style-type: none"> - Children’s performance during the training in the resource center - Children’s performance at home - Children’s performance in the kindergarten - Resources parents can seek for
Development of training plans	<ul style="list-style-type: none"> - Interpretation of children’s current developmental level - Analyzing the needs of the children - Discussion about training plans for the children
Collaborative intervention	<ul style="list-style-type: none"> - Parents’ observation during the training the resource center - Parents’ participation during the training in the resource center - Resource center teachers explained to parents about the reasons for using some strategies - Resource center teachers give home training plans for parents - Parents train the children at home based on training plans - Professionals provide suggestions to parents about cooperation from kindergartens - Solve problems together with parents
Emotional support	<ul style="list-style-type: none"> - Psychological interventions for parents: self-identity, personal/career life planning, pressure/stress release...

The collaboration between parents of children with ASD and resource center teachers is very similar with that between parents and professionals from institutions. The content of collaboration was grouped into five categories: communication about educating children with ASD, information exchange, development of training plans, collaborative intervention, and emotional support.

As mentioned above, a large part of the content is similar with the collaboration between parents and professionals from institutions, so some categories will only be briefly introduced. Focuses will be placed on categories that are different from the previous ones.

Communication about educating children with ASD

“Having appropriate educational knowledge is very important for the parents of children with ASD”, said a resource center teacher (participant F2). While communicating with parents, the resource center teachers attempted to convey some education philosophies or knowledge to the parents. The teacher also introduced the contents of the workshop which are related to educating children with ASD.

“The first aspect is about understanding the children with ASD, such as the characteristics of children with ASD, their needs, how to observe the children, how to communicate with them; the second is how to educate children with ASD, such as behavioral intervention, how to set goals, how to provide reinforcement and so on.”

One of the resource teachers (participant F1) introduced her communication with parents about the importance of inclusion,

“I used to tell them that the children need peers. Sometimes it’s the parents’ opinions which restricted the development of the children rather than the children’s own abilities.”

Information exchange

Just as the collaboration between parents and other professionals, information exchange was also one of the contents of the collaboration between parents and resource center teachers. The parents would provide resource center teachers with

information such as the children's medical history, family background, diagnosis results and children's performance at home and in the kindergarten. The resource center teachers would explain the performance during the training in the resource center, and would recommend useful resources that the parents could seek for.

Development of training plans

The resource center teachers discussed with the parents about the current level of abilities and needs of the children. Based on the needs, they developed their training plans. Resource teacher Liao (participant F1) said,

“For example, the child needs to get along with other children, so he has to learn to play with others. We taught him play skills, let him learn to play badminton, learn to service the ball. He did not know how to play badminton at first, because his movement coordination is not good. But now, he can play two to three rounds.”

Collaborative intervention

Parents and resource center teachers cooperated in the intervention both at the center and home. At the resource center, parents observed the training and participated in it. The resource teacher would explain the reasons for applying some strategies and the children's performance, and would give the parents home training plans. For example, resource teacher Liao said she gave the parents of YQ home training plans and would communicate with the parents about the problems faced by them during the implementation of the plans.

“Every Saturday, we will communicate about the training plans for them to do at home for the next week. The mother would say, it's too much that we cannot manage to make time for it. I would tell her to try to make time for the training. We analyzed that we have one hour for home training each day, and we have to take the child out during the other time. We can try to break those subjects down, and sort by groups. We put the skills he has already managed aside, which we don't need to practice every day.”

We carefully manage the time for new skills and the practice of old skills.”

The resource teacher would also give some suggestions for parents about the generalization of skills in kindergartens, and then the parents would communicate with preschool teachers.

Emotional support

The resource center teacher (participant F2) introduced the reasons for them to provide psychological intervention for parents.

“They (the parents of children with ASD) have a lot of psychological pressure. Sometimes, they are faced by discriminations. Actually, many parents of children with disabilities have very low self-evaluation. For the children, some of them do not accept their children’s problems. They are afraid to take their children out to have communication with others. But the children need to go out; they need to go into the society. That’s why we provide them with psychological intervention.”

The contents of the psychological intervention include the development of self-identity, personal/career life planning, strategies to cope with emotional pressure and so on. The resource center teachers would also offer information about useful resources for the parents, which could prevent the parents from feeling helpless and could help the parents get started to teach their children.

During the workshop, the resource center teachers offered some topics about which most parents concerned, and the parents shared their feelings and opinions. Then some parents with successful experiences were invited to introduce their methods, and the resource teachers would also provide some helpful strategies to cope with those problems.

4.3.3.3 Factors influencing the collaboration between parents and other professionals/resource center teachers

Several factors influenced the collaboration between parents and professionals from the institutions/resource center teachers as shown in *Diagram 4.10*.

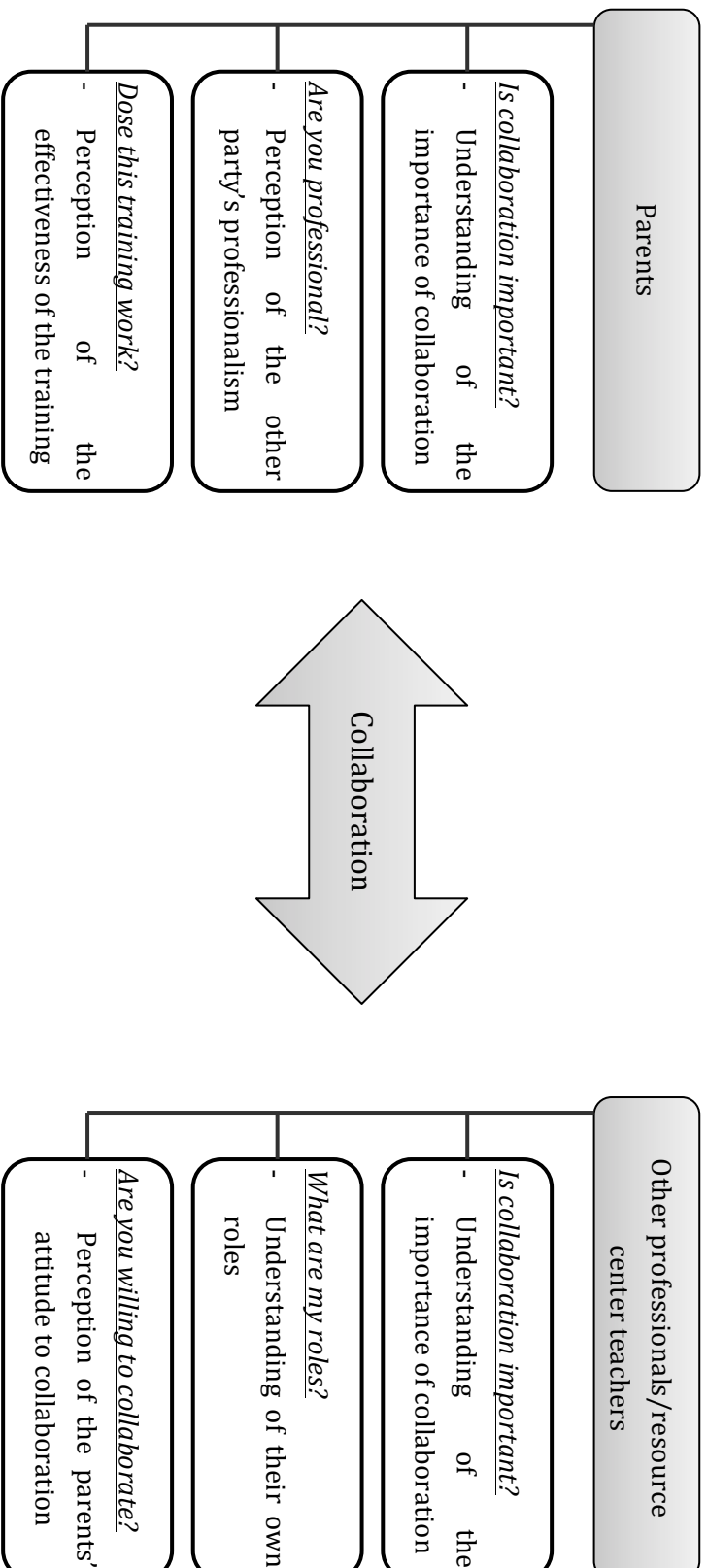


Diagram 4.10 Factors influencing the collaboration between parents and other professionals/resource center teachers

Is collaboration important?

For both parties, their perceptions of the importance of collaboration were very critical for the carrying out of collaboration. The understanding of the value of collaboration could provide inner motives.

Resource teacher Mo (participant F2) mentioned the teachers in the resource center realized that only with the parents' participation could the intervention be more effective and efficient.

The mother of YQ (participant B5) told the researcher about their understanding of their collaboration with the resource center teachers:

“We come to the resource center for every Saturday morning. It's not because how much he can learn during this one or two hours. It's because the teachers can find out what he lacks and can give us suggestions. Then we can go back and teach the child by ourselves. Our child was diagnosed when he was four, and we have been teaching him since then. The teachers cannot provide very comprehensive intervention to the child, we have to participate and cooperate.”

Are you professional?

This category shows the influences that parents' perception of the professionalism of the other professionals/resource center teachers had on their collaboration. When the parents trust the other professionals/resource center teachers, they tend to be more willing to collaborate.

“The parents trusted us and very cooperative, because they see the effects of professionalism and respect professionalism”, said the resource center teacher (participant F1). Parents' perception of the professionalism is also related to the following category, which relates to the effectiveness of the training.

Resource teacher Mo (participant F2) also said that: “when the parents cannot see the strength or professionalism of the institution, they would neither trust them nor actively cooperate.”

Does this training work?

This category indicates the parents' perception of the effectiveness of the training. Their perceptions could impact their attitude toward collaboration. The more effective they thought the training was, the more cooperative they would be during the process.

The mother of YQ (participant B5) reported her perception of the effectiveness of the training in the resource center:

“We come here once a week. The teachers tell us how to teach our child, and give us home training plans. We follow the plans to train the kid at home. Since then, we’ve found that our kid starts to make rapid progress.”

Teacher Liao (participant F1) also told the researcher that the parents of YQ were very cooperative and they had very efficient communication. She also mentioned another child cried a lot when he just started to have training. Although there were doubts from the parents, the teacher explained to the parents and insisted on the training. Later her insistence turned out to be right. The parents saw the effectiveness of the teacher's strategies and became more supportive in the whole process.

What are my roles?

This category refers to other professionals' or resource center teachers' understanding of their roles. How they perceive their roles and responsibilities is associated with what they would do and how they do it.

For example, the professional from the institution (participant G1) considered solving the child's (CC) problems emerging either at home or in the kindergarten as part of the roles they should play. Therefore, the parents of the child would come to the professional when they found problems faced by the children either at home or in the kindergarten, and they would figure out solutions together.

The resource center teacher Mo (participant F2) also mentioned how they started to include parents into their program. It's because they believed with the participation of parents, the intervention would have better outcomes. When doing the parents'

psychological intervention, the resource center teachers defined their own roles as a “guide”. Therefore, based on their perception of roles, they provided topics and let parents share their feelings and experiences, and offered supportive guidance when necessary. “We invited parents to introduce what they worry most at the first time, and then we summarized the most frequently mentioned topics,” said the resource center teacher (participant F2).

Are you willing to collaborate?

This category indicates the other professionals’ or resource center teachers’ perceptions of parents’ attitude toward collaboration. When the parents are active and cooperative in the intervention, it’s more likely for the professionals and resource center teachers to include the parents and carry out collaborative practices.

One of the resource center teachers (participant F1) said,

“The mother attached great value on the child’s training, our communication is very efficient. She is very clear about what we did and what she should do at home, and she will do it... I can see that she is very devoted, and I will tell her why we should do this... After we tell her (what to do), his mother will do it exactly as she was told. So our collaboration works very smoothly...”

I believe the parents have been very positive and tried very hard to search for resources, so I think we, as members of the society, should do more. ”

4.3.4 Collaboration between other support providers

Apart from “parents-preschool teachers” and “parents-resource center teachers/other professionals” collaboration, there is collaboration between other support providers as shown in *Diagram 4.7* and *Diagram 4.8*.

Parents-childcare workers collaboration

As for the collaboration between parents and childcare workers, it mainly

included information exchange and communication of expectations. The childcare workers mainly took care of the children's life in the kindergarten, so mostly they would tell the parents how the children eat, drink, dress themselves and so on. Sometimes they would also tell the parents about the children's performance as supplement to preschool teachers' information.

The parents usually would tell the childcare workers about the child's health conditions, and medicines to take, clothes to change and so on. Because childcare workers also had the responsibility to take care of the children, the parents sometimes expected the childcare workers to provide some intervention when the child exhibited problem behaviors. For example, childcare worker Zhen (participant D3) told the researcher that,

“Every time when we have PE class, we will run for two rounds. (YQ) He did not run, but just walked, lagging behind. We told his mother about this. His mother asked us to give him punishment in order to make him actively participate into the exercises...”

He eats very slowly, and is very picky with the food. His mother told us that we could not let him be. He has to get used to school life because he will enter primary school soon. His mother told me several times that we have to give him time to finish the meal. We have to do something to help him.”

Preschool teachers-childcare workers collaboration

Preschool teachers and childcare workers worked together as partners in the inclusive classrooms. To provide supports for children with ASD, they collaborated with each other in terms of discussing strategies to help the children, providing assistance in teaching activities, and offering emotional support for each other.

Many participants (preschool teachers and childcare workers) mentioned how they worked with each other with the attempts to solve the problems posed by including the children with ASD. For example, teacher Huang told the researcher how they adjust their roles in the classroom. “Due to the behavioral problems of JJ, when I

was carrying out group activities, for instance, telling stories or teaching them to learn some characters, Ms. Su (participant D1) would stand next to the children, especially next to JJ, to provide prompt supports”, said the teacher.

Facing challenges posed by including children with ASD in the classroom, preschool teachers and childcare workers also emotionally supported each other by sharing their feelings, and successful experiences.

Preschool teachers-directors of kindergartens collaboration

As for the collaboration between preschool teachers and directors of kindergartens in the inclusive practice, it was limited. In most cases, directors only involved when the preschool teachers or parents sought for help from them. They might discuss the children’s situation and try to find out possible solutions.

For example, teacher Huang (participant C1) mentioned that she reported JJ’s situation to their director (participant E1), and they discussed the problems and suggested the parents to accompany the child in the kindergarten.

In RR’s case, the director (participant E2) knew the child’s situation from both the parents and the preschool teachers, and encouraged the preschool teachers to support the child and his parents.

Parents-directors of kindergartens collaboration

Mostly parents had very limited interaction with directors of kindergartens, for example, when they had to consult about the admission of their children or when they had to acquire permission of parents’ accompany or suspension of schooling. The parents mainly collaborate with preschool teachers and childcare workers in the daily inclusive practices.

The collaboration between parents and directors of kindergartens was different among different individuals, for example, parents’ attitudes.

YQ’s mother (participant B5) explained why she had very limited contact with the director of the kindergarten:

“Actually I don’t have communication with the director in other aspects.

Only when we tried to find a kindergarten for our kid, we contacted her via QQ (chatting software). We did not find our child's name on the roster and the child was already at the age of entering kindergartens, so we tried to contact her.

Now for the situation of our kid, we don't have any communication the director. I don't think it's necessary to come to the kindergarten level, because if you go around the teachers and directly talk to the director, it seems to be disrespectful for the teachers. The teachers might think we do not trust them and give them pressure via the director."

However, for RR's mother (participant B3), it's different situation. The parent was very active to keep contact with the kindergarten. During the semester when the child suspended his schooling and had training in Beijing, the mother wrote letters to the directors to keep contact and communicated about the child's progress. The director (participant E2) was touched and tried to provide supports to the child when he later came back to the kindergarten.

Director Zhou (participant E2): "...then they took the child to Beijing to have professional intervention. During that time, the parent wrote to me, about how they had treatment in Beijing. When I read the letter, I cried. I could see from the letter that how a mother could devote herself to helping the child, only for the child's development. She only wanted the child to be normal, not to mention others or academic learning. Just to be like other normal kid... So later we also paid much attention to this child..."

Parents-doctors collaboration

Doctors only provided diagnosis for the children, so the collaboration between parents and doctors was also limited to the diagnostic process. The parents provided information about the child to the doctors; the doctors made assessment and diagnosis. As for the inclusive practice, doctors were not involved.

Resource center teachers-directors of kindergartens collaboration

As mentioned before, the preschool inclusion has not been compulsorily carried out in China. At current stage, the focus of inclusion still is placed on compulsory education period. Therefore, kindergartens now have no regular supports from resource centers of the district.

In this research, the director (participant E3) had personal relationship with the director of the resource center in their district, so she asked the director to visit their kindergarten to have a look at the child. The director did an assessment and introduced some information about resources for the parents of the child.

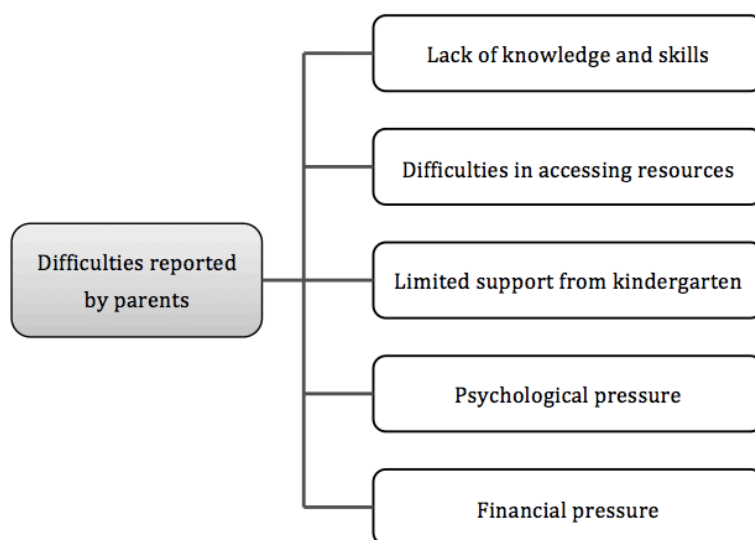
4.4 Difficulties reported by main support providers in the systems

In the interviews, different support providers reported many difficulties that they were facing during the process of including children with ASD in the preschool classrooms. Those difficulties, at different degrees, impeded the implementation of preschool inclusion for children with ASD.

4.4.1 Difficulties reported by parents of children with ASD

Difficulties reported by parents of children with ASD have been illustrated in *Diagram 4.11*.

Diagram 4. 11 Difficulties reported by parents of children with ASD



Related codes were grouped into the following five categories: *lack of knowledge and skills, difficulties in accessing resources, no adequate support from kindergartens, psychological pressure, and financial pressure.*

Lack of knowledge and skills

The lack of knowledge and skills to take care of and to educate children with ASD is one of the difficulties reported by parents of children with ASD. All five parents participated in this research mentioned that they knew nothing about ASD at first, and four of them talked about how they tried to learn from books, from the internet, and to seek for resources.

Firstly, the parents were not aware of the fact the their children were autistic. Two of the parents were told by the teachers that the children were different from others, and then they started to realize it. As teacher Lin (participant C5) said,

“They (the parents) didn’t realize that there were some problems with the child. After entering the kindergarten, we, the teachers could easily notice the child was different.”

Second, the parents lack the knowledge and skills to help the children with ASD. The parents reported that they had little knowledge or skills to take care or educate them, so they had to learn by themselves. They read books, searched information on the Internet, and learned from professionals in the institutions.

Difficulties in accessing resources

The parents complained that they had difficulties in accessing resources. They did not know where to find professional institutions and which institutions were more professional. They were worried that some institutions charged very high prices but could not provide effective intervention. Resource teacher Mo (participant F2) also mentioned that one of her friends asked her to recommend professional institutions because she could not trust some of the institutions.

They also mentioned that they did not know which primary schools could provide better support for their children. They were very worried about the children’s

studying in primary schools in the future.

Limited supports from kindergartens

Parents reported that the teachers in the kindergartens also had no knowledge or experience about teaching children with special needs. Meanwhile, because there were many students in the classroom, the teachers did not have enough time to give the children extra attention. Therefore, there were not adequate supports from the kindergartens.

Parents were worried by the situations such as the teachers' negative attitudes, possible discrimination from peers and parents of other children, lack of individualized supports and so on.

Psychological pressure

Parent claimed that they were experiencing great psychological pressure, including how to effectively help their children, how to find the balance between their own life and the children's life, how to face the discrimination from others and the pressure from the parents of other children in the classroom, even the guilt for causing problems for teachers and other children etc.

One parent (participant B3) reported her feeling:

"It is very difficult for me. I have great pressure. I have to give up many things, especially those of my own life. I have to give up a lot. I feel quite miserable."

The mother of YQ also expressed that they felt very apologetic for teachers:

"I think one of the biggest problems is that, children like him, depending on levels of abilities, cannot follow the teachers' order or rhythm, so they would cause great burden for the teachers."

Financial pressure

Having a child with ASD, apart from the education in kindergartens, the parents had to seek for other resources to give the children professional training. However, as

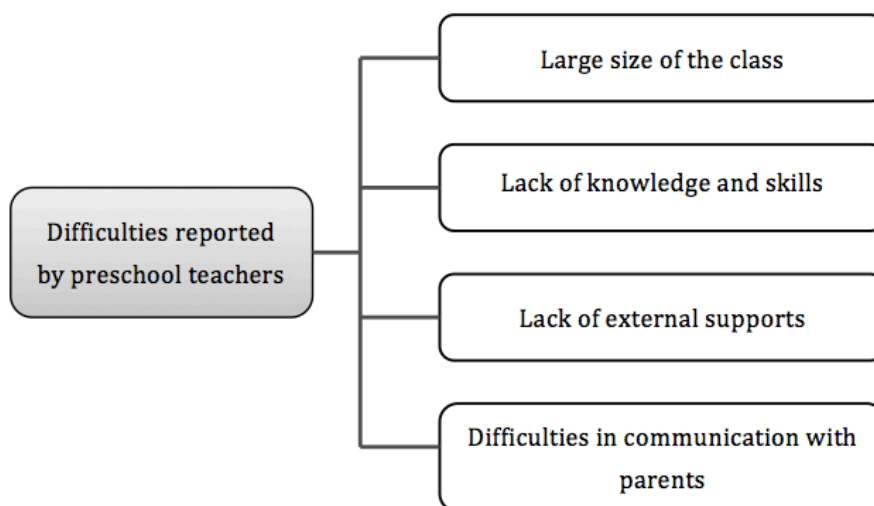
mentioned before, the fees for training in institutions were expensive, which brought the parents great financial pressures.

For example, RR’s mother (participant B3) took her child to Beijing to have professional training, but she also claimed “the cost for training is not affordable for us normal salary earning families”. Another parent (participant B4) also complained the price for training was very expensive. It took 30,000 RMB for a period of training for concentration.

4.4.2 Difficulties reported by preschool teachers

Difficulties reported by parents of children with ASD have been illustrated in *Diagram 4.12*. Four categories have been established: lack of knowledge and skills, large size of the class, lack of external supports, and difficulties in communication with parents.

Diagram 4. 12 Difficulties reported by preschool teacher



Large size of the class

This category was frequently mentioned by all preschool teachers. They complained that there were a large number of children in the classroom and only two to three teachers and childcare workers, and that they did neither enough time nor manpower to give children extra attention or individualized supports.

Teacher Huang (participant C1) told the researcher:

“We have two teachers, one childcare worker in the classroom, and another childcare worker who helps two classes, so actually we have 3.5 staff for this class. In the morning, one teacher mainly takes charge and the other take the shift in the afternoon. The childcare workers work for the whole day. So actually, we have one teacher and one childcare worker in the classroom for most of the time.

You can see, that with two staff, we have 28 children. Every one needs to be taken care of. We cannot only take care of him (participant A4). We have only two teachers...28 children everyday. It’s impossible to exclusively take care of him, unless it’s free playtime. Even when it’s free playtime, other children might fight with each other. What should we do? It’s impossible. We are responsible for every child. We can give him one or two extra sentences, but it’s not going to work for long time.”

Another teacher (participant C3) also mentioned that they have over 30 children in the classroom. She said:

“We have two teachers and one childcare worker, but usually we have two staff in the classroom... If it were the parent’s accompany... it’s impossible to give constant attention to the child. You can see. We have to take care of over 30 children.”

Teacher Lin (participant C5) reported that their work was also very demanding, because there were over 40 children in the classroom.

Lack of knowledge and skills

The lack of knowledge and skills is another significant difficulty reported by preschool teachers. They did not know the characteristics of children with ASD; they were frustrated by the children’s emotional and behavioral problems and did not know how to manage the challenges; they also lacked the experience of teaching children with special needs.

One of the preschool teachers (participant C1) complained,

“How can we deal with it? We can only let him follow... We can only ensure his safety... What should we do? We don't know how to teach him, we don't know how to guide him.”

Participant C9 also reported:

“I tried some strategies. Sometimes I gladly found that it worked but later, for example, two days later, it failed to work...”

I don't know how to deal with some situations, and I hope we would have systematic knowledge and skills to handle all the child's problems.”

Lack of external supports

This category is related with the teachers' lack of knowledge and skills. They also were in need of supports. However, there were few external supports provided for them.

All the preschool teachers who were interviewed said they had not received any training or support related to inclusive education before. They also did not have professional supports from resource centers. They could only try deal with the problems by themselves.

One of the preschool teachers (participant C1) said, “after I knew the child's situation, I could only search on the Internet and study by myself.”

Difficulties in communication with parents

Three preschool teachers reported that they were faced by the difficulties in communication with parents, for example, the parents' avoidance of talking about the child's problem, the subtle discomfort the teachers felt when talking about the child's problems with the parents, the divergences in educational ideas and in understanding children's performance etc.

For example, preschool teacher Huang (participant C1) complained the difficulties she met in communicating with parents:

“We are reluctant to tell the whole truth. We have the responsibility to tell you the child's situation, but we are afraid to tell them too directly. The

child’s situation is special, and the communication...

The parents seemed to shield those negative feedbacks. The teachers have to tell them in a euphemistic way, choose the word they can accept...

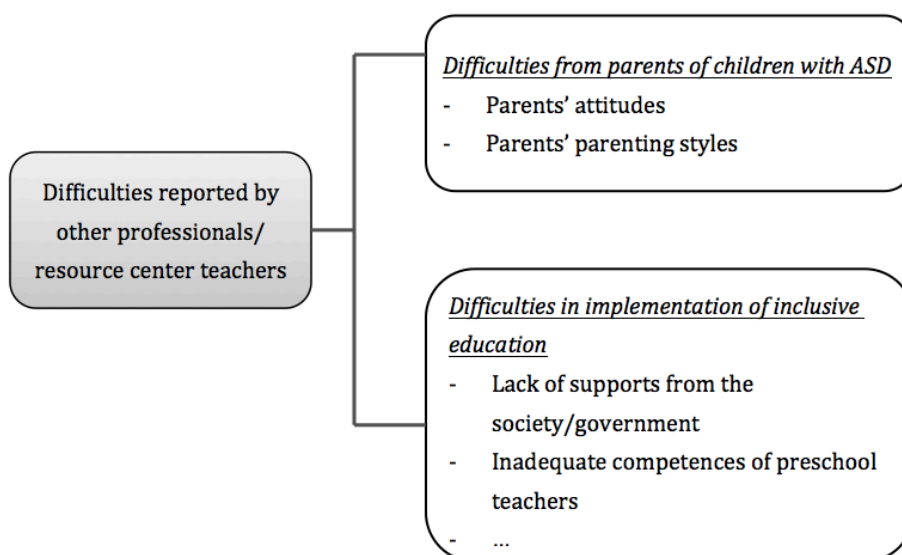
We teachers have told them for several times, but they did not pay enough attention to it.”

Preschool teacher Wu (participant C9) also told the researcher that the parents at first only told them that the child had some problems with sensory integration. However, as time went by, the teachers found the child was different from those with sensory integration disorders, and then the parents told them that the child was diagnosed with Asperger’s syndrome.

4.4.3 Difficulties reported by other professionals/resource center teachers

When other professionals and resource center teachers were asked about the difficulties they are facing, they mainly mentioned two aspects: *difficulties from the parents of children with ASD*, and *difficulties in the implementation of inclusive education* as shown in *Diagram 4.13*.

Diagram 4.13 Difficulties reported by other professionals/resource center teachers



Difficulties from the parents of children with ASD

For both professionals from institutions and resource center teachers, they

provided individualized training for children with ASD and suggestions for parents. When talking about difficulties during their work which was related to inclusive education, they referred to the parents' attitudes and parenting styles.

For example, parents' attitudes toward the children: positive or negative, high expectations or low expectations and so on, could influence the way how parents interact with the children or involve into the inclusive practice.

As for parenting styles, one of the resource center teachers (participant F1) told the researcher,

“There are two other children in my group. For one of the two, the parents spoil him a lot; for the other, his parents have very high expectations for him, and would throw a tantrum if the child fails to meet their requirements. Not to mention methods, they even have many problems in parenting attitudes. They have to change their attitudes and methods.”

Difficulties in the implementation of inclusive education

The professionals and resource center teachers also mentioned some difficulties in the implementation of inclusive education, such as the lack of supports from the society and government, the inadequate competences of preschool teachers, the low teacher-student ratio and so on.

Based on their experiences of teaching children with special needs and on their experiences accumulated in practice, they were standing at the children's, the parents' and the preschool teachers' standpoints, and raised those questions.

In the inclusive practices, “rather than talking about what parents should do more, I think we should talk about what the society should do for the parents”, said the resource center teacher (participant F1).

5 DISCUSSION

In this chapter, results of the research have been further discussed. The chapter has been arranged into four parts. The first three parts include: (1) functioning of the current supporting systems, (2) problems existing in current supporting systems, (3) facilitators of inclusive education in current supporting systems, and (4) recommendations for better implementation of preschool inclusion for children with ASD, which are aimed at responding to research questions 4 to 6:

Question 4: How are the systems supporting the children with ASD?

Question 5: What are the barriers to implementing a well-structured supporting system?

Question 6: What should a theoretically based and practical model of supporting system be like for including children with ASD in preschool classrooms?

In the final part of the chapter, limitations of the research have been discussed.

5.1 Functioning of the current supporting systems

Supporting systems play vital roles in inclusive practices. As mentioned before, the concept of *support* includes everything that enables learners to learn, especially those resources which supplement what the regular class teacher can provide (UNESCO, 2001). In this research, it has been defined as “resources and strategies that aim to improve the individual functioning of children with ASD in inclusive preschool education settings, and therefore to improve children’s personal outcomes”. With an integrated and holistic organization of support strategies and resources, a well-structured supporting system could be established to minimize the mismatch of personal competence of children with ASD and the environmental demands, to enhance the children’s functioning in preschool inclusive settings, and to improve the development of the children’s potential.

However, according to the research results illustrated in the previous chapter, the situation of children with ASD in inclusive classrooms was not very promising. The current situation of including children with ASD varied from being marginalized to being included. However, most of the data indicate that the children were more located at the negative side. As said by a resource center teacher (participant F1), for some children without appropriate supports, “it seems that the children with ASD live in a vacuum area in some classrooms”.

The problems existing in the current situation for preschool inclusion of children with ASD mainly included four aspects.

First of all, the *activity participation* of children with ASD was very limited. Supports such as extra verbal prompts, physical prompts were needed to help them understand and follow the rules; they could not keep concentration on the tasks and were easily distracted by other stimuli.

Secondly, there was a *lack of acceptance* from persons in the environment. Based on the data collected, some of the children with ASD were not accepted as members of the group in inclusive settings. Persons such as preschool teachers or other children might have negative attitudes, for example, refusal or ignorance.

Thirdly, there was *no effective intervention* for children’s problem behaviors. As presented before, participant A1 (CC) and participant A4 (JJ) had problems behaviors. CC spit a lot in the kindergarten, which seemed to be an interesting game for him. JJ would scream in the classroom, run away, and touch his penis when he was bored. Those problem behaviors brought very negative influences on both the children themselves and other children.

Fourthly, there were difficulties in accessing *individualized training* for children with ASD. The parents reported difficulties in accessing individualized training for their children. Usually, they had to take their children to institutions or resource centers to have professional training, and the quality of institutions varied a lot. The professional training of abilities were not integrated into daily life in the inclusive settings, that is, the kindergarten. Therefore, for some children with ASD, they did not have any individualized training, and for others, they had to rush to different places.

As a result, the children with ASD could hardly have suitable education in the preschool inclusive settings, and their potential was not fully developed. As said by two informal statements about the situation for children with special needs in regular classrooms, rather than “studying in regular classrooms”, it’s more like “sitting in regular classrooms” or “muddling in regular classrooms”.

A well-structured supporting system should “undergird the efforts of individuals and organizations providing inclusive services to children and families” (DEC & NAEYC, 2009, p. 2), and should provide a continuum of services and supports that can meet the varying needs of different children, therefore to ensure the access, participation, and supports needs to achieve the desired results related to inclusion (DEC & NAEYC, 2009). However, those problems discussed above actually reflected the **inadequate functioning** of the supporting systems.

In terms of supporting children with ASD in inclusive settings, the supports provided were insufficient. As discussed above, special needs such as behavioral intervention, training of interactive skills and so on, were not satisfied.

As for families, supports for them were also inadequate. Parents of children with ASD complained the difficulties in finding useful resources, for example, professional institutions, schools with resource room teachers and so on.

As for preschool teachers and childcare workers, they were struggling in dealing with challenges brought about by including children with ASD in the regular classrooms, and lacked professional supports of knowledge and skills.

In this regard, the current supporting systems were not sophisticated, and were only at the primary stage. The systems were not appropriately supporting those important persons involved in the inclusive practices, such as the children with ASD, the families and practitioners etc.

5.2 Problems existing in current supporting systems

The inadequate functioning of the current supporting systems is closely related to the problems existing in the systems. The following part will elaborate on the several

deficiencies of the supporting systems.

5.2.1 Loose internal structure of the supporting systems

The internal structure of supporting systems is closely related with the functioning of the systems.

According to *Diagram 4.5* which shows the structure of the supporting systems, the connections among different micro-systems were loose. For most of the cases, the micro-system of inclusive classroom and kindergarten only had connections with families. The family systems interacted with resource centers, institutions, hospitals and so on, but those systems were not actively involved into the inclusive practices. There were no intersections between institutions and kindergartens, and between resource centers and inclusive classrooms. Those micro-systems were not working closely to provide supports for the inclusion of children with ASD.

5.2.2 Insufficient collaboration between different supports providers

In inclusive settings, supports should be organized and integrated into a holistic system, and service providers should collaborate with each other (UNESCO, 2001). Teamwork should be emphasized among different parties, including preschool teachers, special education teachers, health care professionals, therapist, parents and so on, in order to provide appropriate supports for children with ASD and to ensure their equal access to productive learning environments.

Relevant to the loose internal structure mentioned above, the collaboration between different supports providers in the system was also insufficient. Persons involved in the inclusive practices did not collaboratively work all together to discuss the children's situations, their educational needs, goals and plans for intervention, the adaptation of curriculum and environment and so on. Complaints were reported by persons including parents of children with ASD, preschool teachers, childcare workers and so on.

The following factors contributed to the current situation:

First, there was a lack of teamwork. As shown in *Diagram 4.7* and *Diagram 4.8*,

in the network of collaboration, the parents were located in the central part, they interacted with preschool teachers, childcare workers, directors of kindergartens, other professionals or resource center teachers, childcare workers, doctors and so on. However, there were no direct contact between staff in the kindergartens and professionals from institutions or resource centers. Most of other professionals provided services in places other than kindergartens, and the kindergartens usually did not employ them as their staff. As stated before, they did not collaborate with each other as a team.

Second, there were no explicit definitions of the roles each party should play and of responsibilities they should assume. Without specific guidelines for implementing inclusive education, persons involved in the practice might have different understanding of both their own and others' roles. How they perceived their responsibilities had great influences on the ways that they behaved. Divergences of the understanding between different parties could even cause barriers in communication.

Third, the unequal status might cause problems during the communication. Just as presented before, a clear definition of each party's roles is very important for effective collaboration; an equal status is the same. Some parents reported their concerns while communicating with preschool teachers, that they were afraid to say things too explicitly because they might offend the teachers. "I don't want to say in that way (too directly), because the kid is studying here anyway, and if the child are treated differently as a result, I don't think I can accept", said the mother of JJ (participant B4). On the other hand, the preschool teacher of JJ (participant B1) also told the researcher, "Currently, the kindergartens are more emphasize providing services for parents... we did not dare to tell the parents too directly".

Forth, there were no settled guidelines for collaboration. No formal collaboration was carried out based on the data collected through interviews and observation. Different participants reported different ways of collaboration, and it depended on their own situations. However, no formal meetings among the persons involved in the inclusive practices had been arranged.

In an effective collaboration model, all the team members work within a shared framework which comprise common beliefs, values and assumptions about education, children, families and so on (Giangreco et al., 2000). All the parties have equal status, focus on the same goals, voluntarily participate, share information with each other, keep communication among team members, contribute their expertise, and respect other's ideas and have shared responsibility for decision making and for outcomes (Cross et al., 2004; Friend & Cook, 2012; Idol, 1997). However, given the problems discussed above, the collaboration during the inclusive practices was insufficient. In consequence, the lack of collaboration was very likely to cause all the service providers working toward different goals, and the services provided to the children was not within an integrated plan.

5.2.3 Lack of services integrated within routines in kindergartens

The learning opportunities in curriculum and everyday life in kindergartens play important roles for the development of children with special needs (Purdue, 2009). It is important to integrate supports into daily school activities in inclusive settings. Resources available at every school are the most important form of supports, and if other services from resource centers and other professionals are needed, they should be oriented to the inclusive setting (UNESCO, 2001). In addition, McWilliam and Scott argue that to integrate services such as therapeutic intervention in classrooms can also increase the consultation between preschool teachers and specialist to four times, compared with when it is provided out of class (as cited in Cross et al., 2004).

However, from the data collected and the illustration in the research results part, the lack of services provided within routines is evident. Firstly, due to the lack of knowledge and skills about special education and the large total number of children in the class, many preschool teachers were not adequate to adapt the curriculum and activities according to the children's special needs, and were not able to use specific techniques to help the children or deal with their problems, like challenging behaviors. Secondly, professionals such as speech therapists, occupational therapists and physical therapists, were mainly working in special education schools, resource

centers or institutions, which made it harder to provide services for the children with the routines in kindergartens.

Of all the five children participated in the research, two of them had no professional intervention from other professionals, and three of them had to arrange time to go to institutions or resource centers to have professional training. Only the resource center teacher mentioned that apart from intervention in their center, she also provided home training plans for parents and the parents would communicate with the preschool teachers about the training plan. The other two children only had training in the institutions and the intervention. None of those interventions were really integrated into daily routines of the kindergartens.

5.2.4 Insufficient preparation for inclusion from the kindergartens

The preparation of kindergartens for inclusive education is another important factor which influences the implementation of inclusion. However, data collected indicated insufficient preparation of the kindergartens, in terms of the size of the classes, the preschool teachers' knowledge and skills, the teachers' and directors' attitudes toward inclusive education, the knowledge of inclusive education of other children's parents, and the guidelines for implementation of inclusive education.

Size of the class Within all the classes observed, there were 28-42 children in one class. For bottom classes (K1), there were fewer children, and for top classes (K3), there were more children in the classroom. As for teachers, one class usually had two teachers and one childcare worker. It would be very demanding for the preschool teachers and childcare workers to appropriately support children with ASD with this level of teacher-student ratio, but in fact, no adjustment of the size of the class had been made during the implementation of inclusive education.

As stated in previous chapter, preschool teachers complained that they had little time or manpower to provide individualized support for children with ASD. Some preschool teachers and childcare workers even reported that they could only keep the safety of the children, but could not give more supports for them.

Preschool teachers' knowledge and skills In inclusive settings, preschool teachers are supposed to possess certain qualities, such as the abilities to collaborate with other personnel involved, to adapt the curriculum and practice to meet the special needs of the children, and to be open to other professionals' suggestions etc.

However, based on the data collected, none of the preschool teachers who participated in this research had any training about inclusive education. They were not familiar with the characteristics of children with ASD, and did not know deal with the challenges posed by the children. They were struggling in dealing with all the “accidents” which might be caused by the children with ASD.

Attitudes toward inclusive education of directors of the kindergartens The attitudes of the directors can have great impact on the implementation of inclusive education. Their attitudes influences supports provided at the kindergarten level, and can also influence other teachers' attitudes toward inclusion. One of the directors (participant E1) participated in this research expressed her negative attitude toward inclusive education:

“Although we are encouraged to do it (inclusion), it's not fair for other children if the teachers spend too much time only on this one child. It's impossible. As a result, the educational equality is not equal any more. If this child can have the particular service, what is about other kids? If every parent thinks their child is special, they will ask for special attention and care for their children. Educational equality cannot be realized in such educational institutions. It's not fair.”

Attitudes toward inclusive education of parents of other children The attitudes of other parents are also important in the inclusive practices. Currently, in China, inclusive education is not a common notion in general public, and people still have doubts about including children with special needs in regular classrooms. How other parents accept the including of children with ASD is related to the psychological environment of the inclusive settings.

One of the teachers (participant C1) mentioned other parents' negative attitudes toward the child with ASD because of his problem behaviors. However, no participants mentioned the efforts which had been made to help parents of other children understand the inclusive education.

Guidelines for implementation of inclusive education An explicit guideline can help regularize the implementation of inclusive education. Questions such as how the inclusive education should be carried out, who should participate, how collaboration should be carried out and so on, should be answered in the guidelines. According to data collected, in the kindergartens participated in this research, none of the kindergartens had any guidelines for inclusive practices. The implementation of inclusion was very arbitrary.

5.2.5 Lack of mechanisms to underpin the implementation of inclusion

The establishment of practical mechanisms can largely underpin the implementation of inclusive education; on the contrary, the lack of such mechanisms may cause barriers. According to the results of data analysis, the researcher found that no sophisticated mechanism had been built to ensure the implementation of preschool inclusion.

A mechanism for referral after diagnosis When the children were diagnosed with Autism Spectrum Disorders, the parents felt lost and did not know what to do. They expected the doctors could give them some useful suggestions, but the doctors failed to do so. There were no mechanisms to refer the children diagnosed to the following step.

As a parent reported,

“Although the child exhibited problems in language development, it turned out to be autism. Em... the doctor gave the diagnosis and then had nothing to do. He told us to find some training institutions. At that time, we did not know (where to find the institutions), and we searched for

resources, from everywhere. There are many suggestions on the Internet, and there are many hospitals (advertising on the Internet). We were heard that the hospitals were not helpful, so we later entered an institution to have training.”

We can easily see from the wording that how helpless the parent felt. With all the information from the Internet, it’s hard for them to distinguish which institutions were more professional.

Mechanism in the kindergarten to guarantee the implementation of inclusion In kindergartens, there were still many questions to be solved. For example, how should the working load of preschool teachers be calculated? How IEPs should be developed? Who should participate and what supports should be provided from the kindergarten? Given all these questions existing during the implementation of inclusion in kindergartens, mechanism should be established.

Mechanism to regularize the work of resource centers Currently, as mentioned before, not like inclusion in compulsory education phase, preschool inclusive education is not compulsorily carried out. There were no explicit regulations or guidelines for preschool inclusion. The work carried out by resource centers was more arbitrary. Working procedures and supervision mechanisms have not been established. For example, there were no the regular and formal collaboration between resource center and kindergartens; the formal evaluation of how the inclusive education was carried out remained to be developed.

Official regulations and policies In China, there are different laws and polices that have referred to preschool inclusion. Important laws and policies have been listed in *Table 5.1*.

Table 5.1 List of regulations and policies related to preschool inclusive education

Regulations and policies	Relevant content
<p><i>People with Disabilities Education Ordinance</i> (State Council of PRC, 1994)</p>	<p>Preschool education for children with disabilities shall be provided by the following institutions: preschool education institutions for the disabled, ordinary institutions of preschool education, welfare institutions for children with disabilities, rehabilitation institutions for children with disabilities, preschool classes in ordinary primary schools and preschool classes in special education schools. Families of disabled children shall also be responsible for preschool education of disabled children.</p>
<p><i>Law of the People's Republic of China on the Protection of Disabled Persons</i> (National People's Congress of PRC, 2008)</p>	<p>The state shall guarantee the right of disabled persons to education. Ordinary educational institutions shall provide education to disabled persons who are able to respond to ordinary education and ordinary institutions of preschool education shall admit disabled children who are able to adapt themselves to the life there. Preschool education institutions for the disabled, classes for disabled children attached to ordinary preschool education institutions, preschool classes of special education schools, welfare institutions for disabled children and families of disabled children shall be responsible for preschool education of disabled children.</p>
<p><i>Teaching Guideline for Preschool Education</i> (Ministry of Education of PRC, 2001)</p>	<p>Education in kindergartens is for the healthy development of all children, including children with special needs, and should provide positive support for each child. Teachers in kindergartens should pay attention to children's special needs, including children's development potential or obstacles to development, work closely with the family, and jointly promote the healthy development of children.</p>
<p><i>Special Education Promotion Plan (2014 - 2016)</i> (Ministry of Education et al., 2013)</p>	<p>Local governments should consider preschool education for children with disabilities in their plan for local preschool education development and list it as the critical program. Local government should provide support for regular kindergartens to accept children with disabilities.</p>

According to the official documents, the educational rights of children with special needs have been ensured by laws. Regular kindergartens are among the institutions which are responsible to provide preschool education for children with disabilities. The government should provide support for regular kindergartens to accept children with disabilities. However, more detailed regulation is missing. Based on the interviews with the directors of kindergartens, they had not received any supports from the government.

As for funding from the government for children with disabilities, in Chengdu, at compulsory education phase, the expenditure per student is 10 times the expenditure for student without disabilities, and this policy has been carried out in practice. At the preschool stage, according to *Chengdu Municipal Measures for Kindergartens Administration* (Chengdu Municipal Government, 2014), the expenditure per student for children with disabilities should be 6 to 10 times the expenditure for children without disabilities. However, this policy has not been carried out in all districts.

5.3 Facilitators of inclusive education in current supporting systems

Based on the data collected, the research also found some facilitators that positively influenced the functioning of the current supporting systems.

5.3.1 *Straightforward and open attitudes during collaboration*

During the communication between different parties in inclusive practices, problems and misunderstandings may occur. As discussed in the previous chapter, attitudes of the two parties, for example, the attitudes of preschool teachers and that of the parents, influenced the effectiveness of their collaboration. Some preschool teachers reported the parents' avoidance to talk about their children's situation, and parents complained that the preschool teachers were very passive during their collaboration.

For the interest of the children, straightforward and open attitudes may be more helpful during the dynamic and interactive process of collaboration. One of the preschool teachers (participant C9) shared her experience about communication with

parents:

“At the very beginning of the semester, we had a parents meeting. At the meeting, I said every clearly to them that we would work together for three years so we had to trust each other. I told them, ‘You let your children study in my class, which means you trust me by giving your most precious thing to me, so we have to be honest to each other. If you have anything to say, just say it directly to me.’ It turns out very helpful. I don’t feel any barriers.”

5.3.2 Personal relationship between support providers

Positive personal relationship between support providers is another factor found by the researcher, which could facilitate the functioning of supporting systems by enhancing the collaboration between the providers. With better personal relationship, both parties found it’s easier to be frank and open during communication and they had more chances to communicate.

YQ’s mother (participant B5) mentioned their relationship with one of the preschool teachers (participant C5), “We are familiar with each other, and have good relationship. The teacher lives in town, so sometimes we had dinner together after we went shopping in the town”. The teacher (participant C5) also mentioned, “In the weekends, sometimes, we and other parents take the children out together and let them play together.” When talking about the communication with each other, both parties expressed positive attitudes and reported very good and frequent communication with each other.

JJ’s mother (participant B4) also told the researcher that she had better personal relationship with the previous teacher who was not teaching JJ anymore, and she indicated that they had less barriers in communication.

“I had good communication with the previous teacher. She told me everything about JJ... We lived close to each other, and our communication was frequent... Our relationship, every aspect, was very good, but they (the kindergarten) changed the teacher suddenly.”

5.3.3 *Successful experience of including children with ASD*

Some positive of successful experience can largely enhance the confidence of preschool teachers and childcare workers to include children with ASD. With those experiences, they have gained knowledge and skills to support the children, and tend to have more open and positive attitudes toward accepting children with ASD in their classrooms.

Teacher Li (participant C3) reported her experience and attitudes:

“Now I know some methods, for example, how to communicate with him, to help him... I think these three years with RR (participant A3) is a process development for both of us. It’s also a process of growing up for me...I think if I have to accept another child with ASD in the classroom, I’m not afraid. I would not bother very much. It’s said that children with ASD are angels, and are children from remote stars. They have some shining points anyway. The God closed the door but opened a window for them.”

5.3.4 *Well-organized internal structure of family systems*

A stable and well-structured family system can largely facilitate the functioning of families in the inclusive practice. After diagnosis, how did the family members adapt to the crisis? How did the family members take responsibilities in the process of supporting their children? How did the family members support each other? Were there any other supports they can seek for, such as help from grandparents of the children or friends close by? If the family members can actively face the change in their life, and appropriately adapt their roles to form a resilient family system, they can find them in a more positive position to deal with all those challenges.

YQ’s family is a positive example found in this research. When the child was just diagnosed with ASD, they were very desperate and the mother was crying all day. However, the parents made prompt adjustment. They actively sought for external resources; they changed their lifestyle in order to provide the child with more opportunities to interact with peers. The parents also supported each other and formed

a steady family structure. The resource center teacher (participant F1) also commented on YQ's family system:

“His mother participated in our workshop for parents, and his father accompanies the child's training... She is very clear about what we did and what she should do at home... There internal structure of the system is very good. They also actively seek for external resources, so their family did quite well.”

5.4 Recommendations

For more effective implementation of preschool inclusive education, improvements should be made to construct well-structured supporting systems that can provide more comprehensive and appropriate supports for children with Autism Spectrum Disorders.

5.4.1 Establishment of referral systems

As reported by parents and preschool teacher, they had little knowledge about what resources could be useful for them, what services they could seek for, and where they could find helpful resources and so on. The establishment of referral systems can largely help the children with ASD. Referral systems should cover the referral of the child from families or kindergartens to diagnostic services, from diagnosis to further intervention/educational services, and the transition from kindergartens to primary schools.

The referral system should function as a part of the supporting system during the whole process of inclusive practice. When the parents or teachers have concerns about the development of a child, the referral system should refer the child to professional consultation and have multi-factored evaluation. With the results of evaluation or diagnosis, parents should have access to comprehensive information about useful resources and professional interventional services; the preschool teachers should have access to professional supports from persons who have expertise in educating children with special needs and so on. If the inclusive environment cannot fully satisfy the

child's needs, adaptation of placement should be made. When the child is about to complete the study in the kindergarten, transitional services to primary schools should be provided.

5.4.2 Regularization of the functioning of resource centers

With the development of inclusive education in China, it has expanded from compulsory education stage to preschool period. The resource centers should also play their roles for preschool inclusion.

A detailed guideline for the routine work of the resource centers should be established to ensure the implementation of preschool inclusion. It will help to ensure the personnel as resource center teachers, to define the responsibilities of them, to regulate the procedures to provide supports and supervision, to specify the criteria for evaluation, to make sure the involvement of parents and other relevant persons and so on and so forth.

With an explicit guideline for carrying out the work, the functioning of the resource centers can be regularized and standardized, therefore to ensure the implementation of preschool inclusion.

5.4.3 Pre-service and in-service teachers training

Training for preschool teachers

Preschool teachers, who provide direct caring and education for children, are supposed to be adequate to provide every child with quality education, to be able to have access to professional support, and to collaborate with different parties. However, as discussed in the previous part, the preschool teachers reported that they had little knowledge about inclusive education and lacked the strategies to help children with special needs.

Some quantitative studies conducted by other researchers have also indicated the same situation. Ye and her colleagues stated in their research that when preschool teachers interacted with children with special needs, they tended to use the same strategies that they use for typically developing children; when they are asked for help

by parents of children with special needs, they are unable to give useful suggestion (Ye, Wu, & Liao, 2009). Tan and Yin (2008) surveyed 338 preschool teachers. The results indicate that 63% of the teachers expressed their willing to have professional training of special education, and up to 64.8% said that they needed professional support from special education experts. Under the assumption that they have adequate knowledge, skills, equipment and support, the percentage of teachers who can accept early childhood inclusive education increased by 30% (Sun, 2007).

For preschool teachers, their lack of knowledge and skills about educating children with special needs impeded the implementation of preschool inclusion. Therefore, their demand for professional support about inclusive education is imperative. The training for preschool teachers can underpin the functioning of supporting systems, should cover pre-service as well as in-service teachers training.

The content of training should include, for example, the professional attitude towards educating children with special needs, knowledge about inclusive education, characteristics of children with special needs, and strategies to make curriculum adjustment, to collaborate with other persons involved in the practice of inclusion.

For students majored in preschool education, the training can be carried out in the form of courses integrated in their curriculum. Currently, in China, there are an increasing number of teachers' training programs that have included courses related to inclusive education, for instance, *Introduction to Educating Children with Special Needs*, *Inclusive Education*. It can help the students be equipped with fundamental knowledge and skills to deal with the challenges brought about by including children with special needs in regular classrooms.

As for in-service preschool teachers, the training can be integrated into the National Training Program for preschool teachers. It can be carried out in the form of lectures or workshops, and can also utilize the form of tutoring and supervising in real workplaces. Resource centers should also play their roles, to provide training for teachers in the kindergartens of the district.

Training for special education teachers

Special education teachers, who have valuable experience and resources about teaching children with special needs, can provide strong support for preschool teachers in inclusive kindergartens, for example, serving as resource center teachers for inclusive kindergartens, providing access to devices, materials and training (UNESCO, 1994). The requirements for special education teachers are different from the past. In the past, they only played the roles of an educator; however, in the context of inclusive education, they are expected to be an educator, a coordinator, a supporter, a supervisor etc. Therefore, for those special education teachers, who are going to be resource center teachers, training is also needed.

The training for them should involve content to help them: understand the functions and responsibilities of resource centers, be familiar with daily work of the resource center, gain expertise across different disabilities to meet various needs of children in natural environments, and master collaboration skills and coordinate the persons and resources. The training can be organized and funded by the government especially for the implementation of inclusive education.

5.4.4 Intervention for parents of children with ASD

Families play significant roles in the practice of preschool inclusion. Parents possess comprehensive knowledge about their children. They can provide useful information for service providers; providers should inform parents their plan for the child and include parents in decision-making processes; both parties work collaboratively to facilitate the development of the child, and to improve the quality of inclusive education (Cross et al., 2004; Giangreco et al., 2000). Research has shown that the relationships between the parents of children with special needs and service providers are essential to the success of the inclusive experience (Cross et al., 2004). Parents should assume responsibilities and participate in the preschool inclusive practices.

However, as illustrated before, the parents were faced by many difficulties: lack of knowledge and skills, difficulties in accessing resources, no adequate support from

kindergartens, psychological pressure, and financial pressure. Providing supports for parents is also an important part of the construction of supporting systems. Supports for parents should include intervention in the following four aspects: attitudes, knowledge, skills and emotions.

Attitudes include the parents' views on the children and on education, for example, the ways in which the parents understand the problems with their children, how they value the education for their children, how they perceive the progress made by the children, and what expectations they have for their children and so on.

Knowledge for parents of children with ASD should cover knowledge about children's development, the characteristics of children with ASD, needs of their children, and useful resources they can seek for etc.

Skills of the parents to help the children with ASD should consist of skills, for instance, to observe the children, to communicate with the children, to interpret the children's progress, to provide appropriate home training, to seek for external supports and to collaborate with other relevant persons.

Intervention for *Emotions* should cover pressure/stress relief, the development of self-identity, personal/career life planning, strategies to cope with emotional stress, the adjustment of dynamic family systems and so on.

5.4.5 Further development of regulations and policies

Legislation and policies, as indispensable elements of the supporting systems, can provide effective guarantee for the implementation of inclusion. As presented in *Table 5.1*, although there are regulations and policies to ensure the rights to education of the children with disabilities, there are no explicit requirements about the procedures and standards for the implementation of inclusive education.

More comprehensive and sophisticated regulations and policies should be developed to define the responsibilities of related government departments, for instance, Bureau of Education, Bureau of Civil Affairs. The allocation of funding for preschool inclusion should be ensured. The responsibilities of kindergartens, resource centers and other relevant organizations should be regulated. The procedures of

preschool inclusion need to be clarified.

5.4.6 Promotion of inclusive education in the public

Attitudes have great impact on behaviors. The attitude of the public toward inclusive education not only forms a macro psychological environment in society, it also affects the atmosphere in the micro-systems such as the kindergartens.

According to the data collected in this research, there were still many people, including preschool teachers, childcare workers, parents, and even directors of kindergartens, who had limited knowledge or even misunderstanding about inclusive education. Their understanding influenced ways how they behaved. In addition, the attitudes toward inclusive education held by parents of other typically developing children are also influential factors in the inclusive practices.

Therefore, the promotion of inclusive education in the public can help the public to realize the educational rights of children with special needs, to have more objective understanding about inclusive education, to reduce their doubts, and to realize the value of inclusion. For example, the idea of inclusion can be advocated in the general public via mass media; successful experiences of inclusion can be introduced to people, especially to those stakeholders; inclusive activities can be carried out in communities; appropriate guidance can be provided to parents of other children in the kindergartens.

5.5 Triangulation

In order to improve the trustworthiness of the research, a quantitative survey was conducted to triangulate the results developed through the grounded theory approach. The main aim of this survey is to gain information about the following aspects: the preparation of the kindergartens to accept children with special educational needs, the supports provided for the inclusive practices, the main difficulties experienced by the preschool teachers, and the expected supports for better inclusion of children with special needs.

The participants of the survey are preschool teachers in Chengdu city. Thirty-six questionnaires were handed out and all the questionnaires were valid. The basic information about the participants is presented in *Table 5.2*.

Table 5.1 Basic information about participants in survey

	Items	Number	Percentage (%)
Gender	Male	0	0
	Female	36	100
Age group	≤20	5	13.9
	21~25	10	27.8
	26~30	11	30.6
	31~40	8	22.2
	≥40	2	5.6
Major	Preschool education	33	91.7
	Primary education	1	2.8
	Psychological Counseling	1	2.8
	Art education	1	2.8
Type of kindergarten	Public	25	69.4
	Private	10	27.8
	Company/institute affiliated	1	2.8
Type of class	Care class	1	2.8
	Bottom class	6	16.7
	Middle class	17	47.2
	Top class	12	33.3
	Mixed-age class	0	0

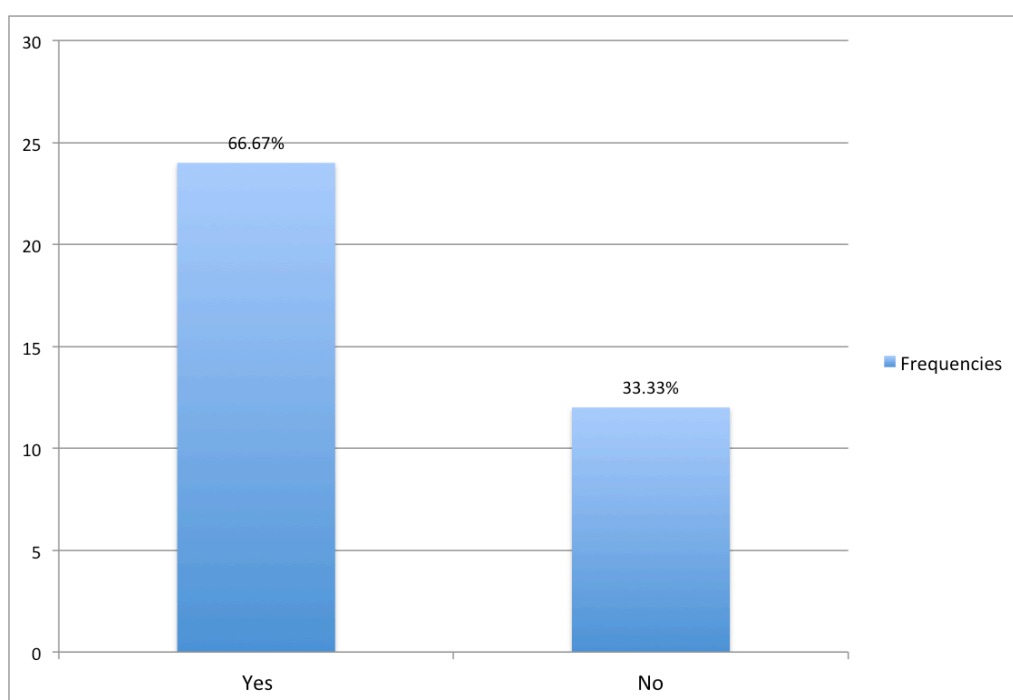
In the following part, some important findings discussed in previous part have been triangulated, and the quantitative data further confirmed the theories developed in the qualitative inquiries.

5.5.1 *Negative attitudes toward inclusive education of preschool teachers*

As mentioned before, in China, inclusive education is not a common notion in general public, and people still have doubts about including children with special needs in regular classrooms.

When the participants were asked whether they were willing to accept children with SEN in their classrooms, one-third of them responded negatively as shown in *Figure 5.1*.

Figure 5.1 Responses of willingness to accept children with SEN in the classes



As for accepting children with ASD, only 38.89% of the 36 participants would like to accept children with ASD in their classes when they were asked about what types of children they prefer to accept.

5.5.2 *The large size of class impeded the implementation of preschool inclusion*

As discussed in previous part, the preparation of the kindergartens was insufficient. Due to the size of the classes, preschool teachers and childcare workers did not have enough time and manpower to take care of the children with special needs. *Table 5.3* illustrated the average student-teacher (include childcare worker) ratios for different classes.

From the table, it is clear that the average student-teacher ratio makes the situation very demanding for the teachers to provide individualized supports for children with SEN. Especially for most of the kindergartens, the two preschool teachers in one class were not on duty together.

Table 5.2 Number of teachers and children in preschool classrooms

	Care class	Bottom class	Middle class	Top class
Number of Preschool teachers (Avg.)	2	2	2	2
Number of childcare workers (Avg.)	2	1.5	1.06	1
Number of children (Avg.)	28	27.3	34.7	38.3
Student-teacher ratio (Avg.)	7	7.8	11.3	12.8

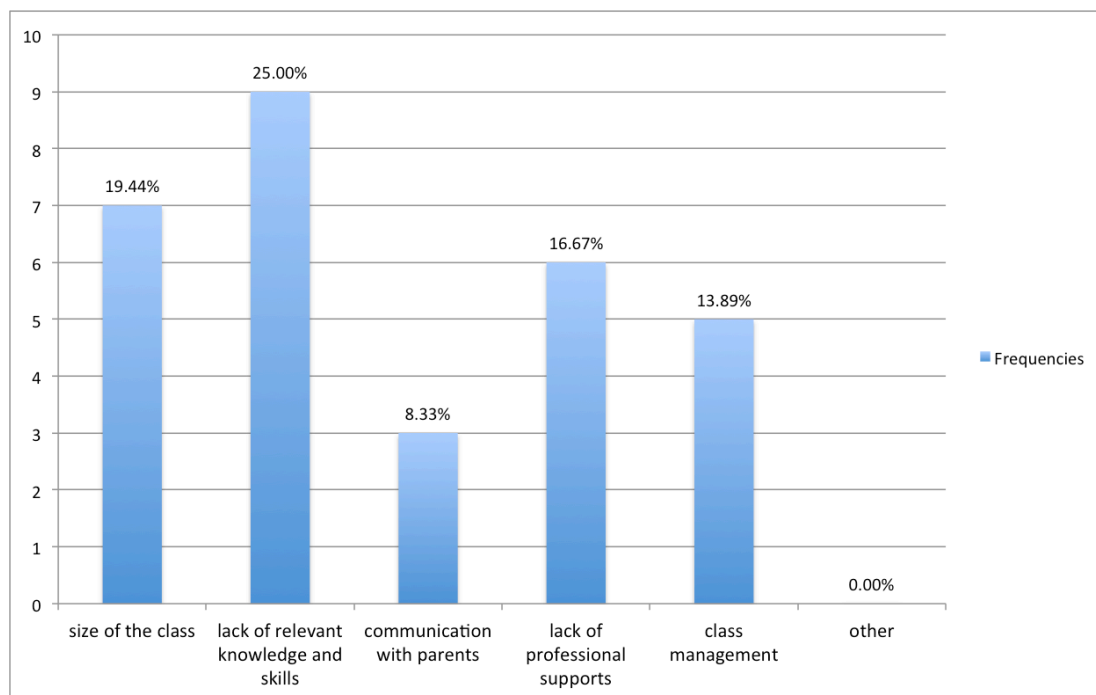
In addition, 75% of the participants who were not willing to accept children with SEN in their classrooms selected “not enough teachers” as one of their main reasons. Among the 13 preschool teachers who had children with SEN in their classes currently, 53.85% reported that “size of the class” is one of the main difficulties that they were facing.

5.5.3 Preschool teachers’ lack of knowledge and skills is one of the main barriers in inclusive practice

Among all the 36 participants, 69.44% had heard of inclusive education. Only 52.78% of the preschool teachers learnt some pre-service courses related with educating children with special needs or inclusive education, and only 13.89% of them had in-service training related with educating children with special needs.

For the 13 participants who currently had children with SEN in their classes, as shown in *Figure 5.2*, the “lack of relevant knowledge and skills” is the most frequently mentioned difficulty that they were facing.

Figure 5.2 Major difficulties reported by participants for including the children with SEN



In addition, among the 12 participants who were not willing to accept children with SEN in their classrooms, 66.67% of them claimed “do not know how to educate” as one of their main reasons.

These quantitative results are consistent with the findings summarized in the qualitative inquiry.

5.5.4 The lack of collaboration and external supports

As elaborated before, the collaboration between different supports providers in the system was also insufficient. There were not adequate supports provided from the kindergarten level and external agencies. Professional supports were not integrated into the daily life in the kindergartens, and the preschool teachers were also in lack of professional supports. *Figure 5.3* and *Figure 5.4* confirmed the findings.

For the 13 participants who had children with SEN in their classes, 53.85% reported no supports from the kindergarten level, and 76.92% reported no external supports from other institutions, resource centers or relevant agencies.

Figure 5.3 Reports about supports from the kindergarten level

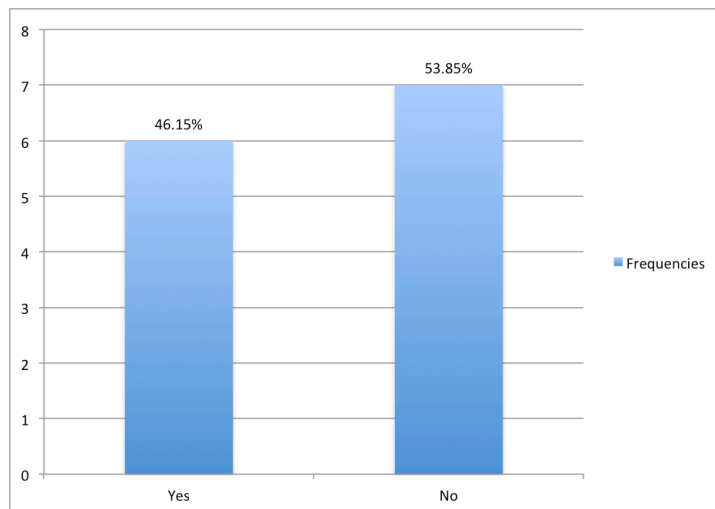
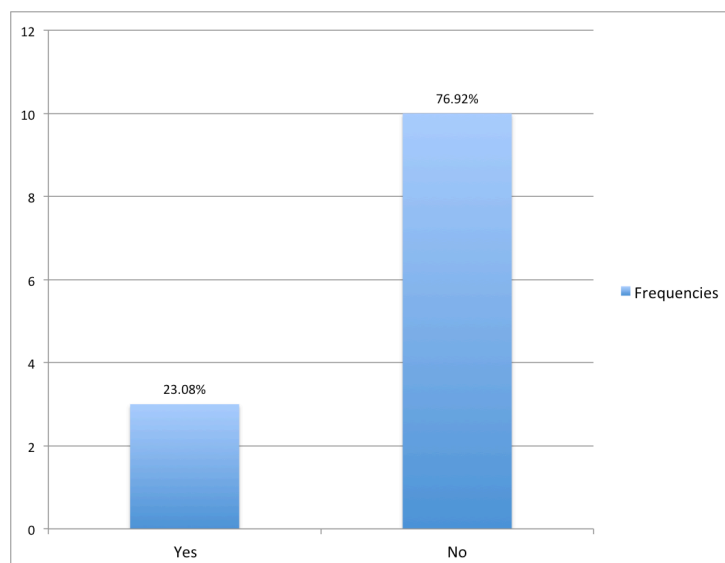


Figure 5.4 Reports about supports from external agencies

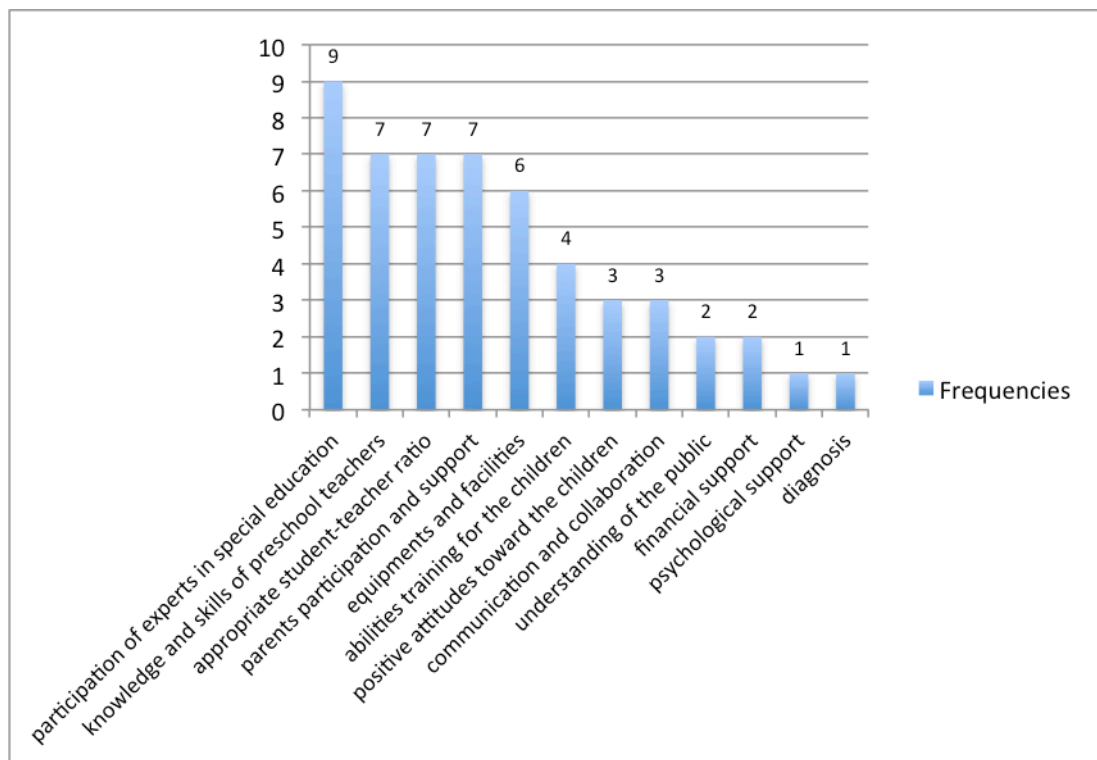


5.5.5 Expected supports for better implementation of preschool inclusion

To include children with special educational needs in regular classrooms, preschool teachers reported some basic requirements should be satisfied and supports are needed.

Figure 5.5 summarized the expected supports and requirements proposed by the 36 participants, which are consistent with the findings in the qualitative inquiry.

Figure 5.5 Reported supports and requirements for preschool inclusion



Factors such as participation of professionals in special education, relevant knowledge and skills of preschool teachers, student-teacher ratio, and parents’ participation, have been emphasized by the participants.

5.6 Limitations of the research

Firstly, the researcher used purposeful sampling to choose five children with ASD who were included in regular kindergartens in Chengdu City, capital of Sichuan Province, and collected data through observation, interview and examination of physical items. The theories constructed about the supporting systems in this research are based on the data collected through the examination of the five cases. Therefore, careful scrutiny should be paid while applying the finding of the results to other situations.

Secondly, as for the participants of the research, the researcher failed to have access to some relevant persons, for example, the fathers of the children with ASD. Some of them did not have time to participate and some of them indicated that the mother of the children could provide enough information for this research. This part

of data should be supplemented in further research.

Thirdly, with careful analysis of the data based on grounded theory approach, theories have been developed to reflect the participants' experiences and the actual practice of preschool inclusion for children with ASD. The results of this research provided an explanation and insights to the inclusive practice, which is only one of many possible interpretations from data.

In addition, it's the first time for the researcher to apply grounded theory approach to analyze qualitative data. The lack of experience brought about many difficulties in the process of data analysis and theoretical integration. With the application of strategies such as constant comparison, questioning, writing memos and so on, revision have been made for many times. The researcher completed the open coding and axial coding processes, but hardly made it to the selective coding stage.

6 Conclusion

As described in the story (CC's case) at the beginning of the dissertation, in regular kindergartens, children with Autism Spectrum Disorders have various difficulties in areas such as activity participation, peer interaction, concentration, following instructions and so on. They are faced with barriers in adapting to school life. It's not a small number of children with ASD who are in need of appropriate supports.

Supports, which are tailored to meet the needs of every individual child, play vital roles in inclusive practices. With the increasingly common practice of inclusive education, whether the children are appropriately supported has become a topic of great importance. Focused on preschool inclusion of children with ASD, the researcher has explored the supporting systems constructed for preschool inclusion of children with ASD in China.

Based on the data collected, the researcher summarized the current situation of children with ASD in regular classrooms, and outlined the structure of the current supporting systems. The roles played by different support providers, the collaboration between different support providers, and the difficulties faced by supporting providers were elaborated.

According to the results of the research, however, the situation of children with ASD in inclusive classrooms was not very promising. The supports provided for children with ASD, for parents and for preschool teachers were insufficient. The supports were not effectively helping the children to adequately function in the environment, and there was still mismatch between the children's competence and the demands from the environment. Support providers, such as parents, preschool teachers, childcare workers and so on, also reported difficulties in the inclusive practice. All of the above mentioned situations indicate the inadequate functioning of the supporting systems. There are still problems to be solved.

Barriers and facilitators which were found in the current supporting systems have

been summarized. The barriers included: (1) loose internal structure of the supporting systems, (2) insufficient collaboration between different supports providers, (3) lack of services integrated within routines in kindergartens, (4) insufficient preparation for inclusion from the kindergartens, and (5) lack of mechanisms to underpin the implementation of inclusion. The facilitators comprised: (1) straightforward and open attitudes during collaboration, (2) personal relationship between support providers, (3) successful experience of including children with ASD, and (4) well-organized internal structure of family systems.

Having clarified the barriers and facilitators found in the current supporting systems, suggestions about future practice of preschool inclusion can be proposed. In order to better support children with ASD in inclusive classrooms, measures have to be taken to improve the supporting systems constructed, including: (1) establishment of referral systems, (2) regularization of the functioning of resource centers, (3) pre-service and in-service teachers training, (4) intervention for parents of children with ASD, (5) further development of regulations and policies, and (6) promotion of inclusive education in the public.

In the practice of preschool inclusion, careful examination of the children's and the families' situation is important. With the scrutiny of their needs, appropriate supports should be provided, and the construction of the supporting system should be regularized and optimized. Only with the "infrastructure of systems-level supports" (DEC & NAEYC, 2009), can inclusive education for children with ASD be properly carried out.

Having gained the knowledge of the supporting systems constructed for including children with ASD in preschool classrooms, further research in this area is still needed.

Firstly, inclusive education emphasizes that all children should have access to regular schools. In the current research only focused on the group of children with ASD, how children with other types of impairment should be supported in preschool inclusive settings is another direction that can be explored.

Second, since this research adopted a qualitative paradigm and explored five cases, the researcher attempted to reflect on the practice from one perspective and provide an in-depth explanation. For more comprehensive understanding of the phenomenon, further research with a larger number of participants can be conducted and a quantitative paradigm can be applied.

Third, the researcher conducted the current research in Chengdu City in China, which can only represent the development of preschool inclusive education in this area; further research in a wider geographic scope or other area can be carried out.

In addition, successful experience from other regions or countries can be introduced.

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Appendix A

Demographic information of children with ASD

1. Name _____
2. Age _____
3. Grade in kindergarten: (1) bottom class (2) middle class (3) top class
4. Gender: (1) male (2) female
5. Diagnosis of ASD: Yes No
6. Placement (may choose more than one option):
(1) Regular classrooms (2) Institutions (3) Resource rooms (4) Resource centers
(5) Hospitals (6) Others _____

Appendix B

Interview guides (parents version)

Basic information

1. Name_____
2. Gender: (1) male (2) female
3. Age_____

Interview questions

1. When was your child was diagnosed with ASD? How did you realize the problem?
2. How did you decide the placement for the child?
3. What supports do you think the child needs in regular kindergartens?
4. How do you think the child is supported in the kindergarten?
5. What did you do to support the child in the kindergarten?
6. What do you think the preschool teachers/childcare workers/directors of kindergartens...should do to help the child in the kindergarten?
7. How do you communicate/collaborate with preschool teachers/childcare workers/directors of kindergartens? Do you think it's effective?
8. What kind of training does your child have in the institutions/resource centers...?
9. How do you communicate/collaborate with the professionals in institutions/resource center teachers? Do you think it's effective?
10. What problems are you faced with for including the child in regular kindergartens?
11. What other supports do you think your child needs in order to help the child better included in the regular kindergartens?

Interview guide (preschool teachers/childcare worker version)

Basic information

1. Name_____
2. Gender: (1) male (2) female
3. Age_____

Interview questions:

1. Could you please introduce the situation of the child in the kindergarten?
2. What supports do you think the child needs in the kindergarten?
3. How do you do to support the child in the kindergarten?
4. Do you have any experience of teaching other children with special needs?
5. Have you ever received supports from others during the process of including the child?
6. What do you think the parents/preschool teachers/childcare workers/directors of kindergartens...should do?
7. How do you communicate/collaborate with parents/preschool teachers/childcare workers/directors of kindergartens...? Do you think it's effective?
8. What problems are you faced with for including the child in your classroom?
9. What other supports do you think are needed in order to help the child better included in the regular kindergartens?

Interview guide (directors of kindergartens version)

Basic information

1. Name_____
2. Gender: (1) male (2) female
3. Age_____

Interview questions:

1. What factors you would consider when admit children with special needs in the kindergarten?
2. How do the kindergarten support the child with special needs in the kindergarten?
3. How do the kindergarten support the teachers and childcare workers for including the child?
4. Do the kindergarten have any training about inclusive education for teachers?
5. What responsibilities do you think the kindergarten should assume?
6. What responsibilities do you think other persons or agencies, for example, parents/government/resource centers...should assume?
7. Is there any support from persons or agencies outside the kindergarten, for example, from the government?
8. Do you have any collaboration with parents/resource center/institutions...?
9. What problems are you faced with for including the child in the kindergarten?
10. What other supports do you think your child needs in order to help the child better included in the kindergarten?

Interview guide (professionals in institutions/resource center teachers version)

1. Name_____
2. Gender: (1) male (2) female
3. Age_____

Interview questions:

1. How long has the child received training in the institution/resource center?
2. What services do you provide for the children with ASD?
3. What service do you provide for the parents of children with ASD?
4. How do you support the child's study in regular kindergartens?
5. Are there any difficulties you are facing?
6. In the inclusive practice, what do you think the parents/preschool teachers/childcare workers/directors of kindergartens...should do?
7. How do you communicate/collaborate with parents/the kindergartens...? Do you think it's effective?
8. What other supports do you think are needed in order to help the child better included in the regular kindergartens?

Appendix C

Investigation of Supporting Systems for Preschool Inclusive Education

Dear teachers,

This research is to investigate the construction of supporting systems for inclusive education of children with SEN, and therefore to promote the development of preschool inclusive education. The information you provide will help the reserach on the preschool inclusive education. There is no right or wrong for your answers. Please answer the questions according to the fact of your kidnergartens. Confidentiality will be respected for the information provided, and there will be no adverse impact on you. Thank you very much for your participation!

1. Gender*

male

female

2. Age*

3. Years of working*

4. Major*

5. Type of kindergarten*

public

private

company/institute affiliated

6. Type of the class*

- care class
- botttom class
- middle class
- top class
- mixed-age class

7. Number of children in your class*

8. Number of teachers in your class*

- 1
- 2
- 3

9. Number of childcare workers in your class*

- 1
- 2
- 3

10. Do you know inclusive education?*

- Yes
- No

11. Have you learnt any pre-service courses related with educating children with special needs or inclusive education?*

- Yes

No

12. Have you ever received any in-service training related with educating children with special needs or inclusive education?*

Yes

No

13. Have you ever had any children with special needs in your class?*

Yes (To question 14)

No (To question 15)

14. What kinds of children you have ever had in your class? (multiple-choice)

intellectual disability

hearing disability

visual disability

ASD

ADHD

physical disability

language disorder

emotional and behavioral disorder

other _____

15. Are you willing to accept children with special needs to study in your class?*

Yes (to question 17)

No (to question 16)

16. If you are not willing to accept children with special needs in your class, what are your major consideration? (up to three choices)

- not enough teachers
- do not know how to educate
- safety consideration
- worry about impacts on other children
- communication with parents of children with special needs
- communication with parents of other children
- other _____

17. If you have to accept children with special needs to study in your class, what kinds of children you would like to accept? (multiple choice)

- intellectual disability
- hearing disability
- visual disability
- ASD
- ADHD
- physical disability
- language disorder
- emotional and behavioral disorder
- other _____

18. Currently, are there any children with special needs in your class?*

- Yes (to question 19)
- No (to question 25)

19. The children with special needs in your current class are?

- intellectual disability
- hearing disability
- visual disability
- ASD
- ADHD
- physical disability
- language disorder
- emotional and behavioral disorder
- other _____

20. What are the main difficulties that the children have in the kindergarten? (multiple choice)

- self-care
- understand teacher's instructions
- follow teacher's instructions
- communication
- activity participation
- peer interaction
- behavioral problems
- concentration
- mobility
- Other _____

21. What are the major difficulties that you are facing? (up to three choices)

- size of the class
- lack of relevant knowledge and skills
- communication with parents
- lack of professional supports
- class management
- Other _____

22. Please briefly describe how you are supporting the children with special needs in your class?

23. Are there supports provided by the kindergarten for the children with special needs? If yes, please briefly describe.

- Yes _____
- No

24. Are there supports provided by other institutions, special education schools or the government for the children with special needs? If yes, please briefly describe.

- Yes _____
- No

25. What supports are needed or what requirements should be satisfied for including children with special needs in regular kindergartens?*
