UAB
Universitat Autònoma de Barcelona

UAB

Universitat Autònoma de Barcelona

Facultat de Ciències de l'Educació

Departament de Pegagogia Aplicada

Examining inclusive teaching strategies to develop inclusive education at the Chinese primary schools

DANDAN LI

Ph.D. Thesis

Ph.D. in Education

2022

SUPERVISORS

Dr. JOSEP M. SANAHUJA GAVALDÀ

Dra. MARIA DEL MAR BADIA MARTÍN

TUTOR: Dr. Josep M. Sanahuja Gavaldà

Education is the most powerful weapon which you can use to change the world.

-Nelson Mandela, a speech at the University of the Witwatersrand, South Africa, 2003

Acknowledgement

I would first like to thank my family, who has given me tremendous support and unselfish help during my long research journey.

Dandan Li

2022.12

Abstract

This study aims to develop inclusive education in regular primary schools and uses a mixed methods approach to analyze the current inclusive teaching strategies in Chinese primary schools. The questionnaire's research instruments, with satisfactory reliability, validity, and in-depth interviews, were implemented to collect quantitative and qualitative data in three regular primary schools in Shenzhen. The literature has been summarized into three dimensions concerning inclusive education: "values and attitudes," "management and environment," and "teaching and instruction".

The results from the teacher questionnaire showed that the schools had inclusive values and teachers had positive attitudes towards inclusive education. Moreover, sample schools had inclusive management and environment for inclusive education. Teachers thought that nine inclusive teaching strategies were used in their class. The significant difference analysis revealed substantial differences in the dimension "management and environment" among teachers with training and teachers of having a resource classroom in their school.

The results from the student questionnaire indicated that the students perceived that their schools had inclusive values, and they had positive attitudes toward inclusive education. In addition, they thought that the schools had inclusive management and environment to promote inclusive education. After the significant difference analysis, W school was the most inclusive of the three schools. More girls thought their schools had inclusive values and attitudes. The students felt that teaching strategies were used to meet their diverse needs, but not so often. Teachers regularly use curriculum differentiation, universal design for learning, differentiated instruction, collaborative learning, peer tutoring, and structured learning to support all student learning. However, the teaching strategies of co-teaching, individualized teaching, and assessment strategies were rarely used.

The results from the teacher interview revealed that most teachers had heard but didn't understand the conception of inclusive education. They said they might be familiar with the implementation of LRC (Learning in the Regular Classroom). Some participants from the interview had positive attitudes toward inclusive education, but other teachers had negative attitudes toward it. They thought their school had less inclusive management and environment to develop inclusive education. They had many barriers to developing inclusive education, such as limited resources and support, big class sizes, insufficient teacher training, and lack of parent participation in student learning. The teaching strategies of curriculum differentiation, universal design for learning, and collaborative learning were used; differentiated instruction was conducted in students' homework; some teachers didn't like to adopt peer tutoring for young children; structured teaching and co-teaching were not used; individualized teaching and assessment strategies were not often used.

It can be concluded that, even though some progress has been made in inclusive education at these primary schools, more diverse teaching strategies should be adopted to develop inclusive teaching in the class.

Keywords: Inclusive teaching strategies, primary schools, teachers, students, China

List of Abbreviations

ADHD - Attention Deficit Hyperactivity Disorder

ASD - Autism Spectrum Disorders

AVE - Average Variance Extracted

CDPF - China Disabled Persons' Federation

CECI - Counting Every Child In

CFA - Confirmatory Factor Analysis

CFI - Comparative Fit Index

CR - Construct Reliability

CRPD - Convention on the Rights of Persons with Disabilities

EDD - Emotional Dysregulation Disorder

EFA – Education For All

EASNIE - European Agency for Special Needs and Inclusive Education

IBE- International Bureau of Education

IE - Inclusive Education

IEP - Inclusive Education Plan

ILFE - Inclusive Learning-Friendly Environments

INDIE - Inclusion and Diversity in Education

LRC - Learning in Regular Classroom

LPPD - Law on the Protection of Persons with Disabilities

MOE - Ministry of Education

NPC - National People's Congress

OECD - Organization for Economic Co-operation and Development

PE - Physical Education

PRC - People's Republic of China

PPD - Protection of Persons with Disabilities

REPD - Regulations on the Education of Persons with Disabilities

RMSEA - Root-Mean-Square Error of Approximation

SC - State Council

SEN - Special Educational Needs

SRMR - Standard Root of Mean Square Residual

TALIS - Teaching and Learning International Survey

TE4I - Teacher Education for Inclusion

TEACCH-Training and Education of Autistic and related Communication-handicapped Children

UN - United Nations

UNDESA - United Nations Department of Economic and Social Affairs

UNESCO - United Nations Educational, Scientific and Cultural Organization

Table of Contents

List of Figures

List of Tables

Chapter 1: Introduction

This Chapter presents a brief introduction to research issues. It starts with a justification for why the researcher chooses this research topic. Then, the research questions and objectives are presented. In addition, the researcher explains the significance of the study and stance. Last is the structure of this study.

1. Justification

Since inclusive education was officially put forward in the Salamanca Statement and Framework for Action on Special Needs Education in 1994, it has gradually become a new global agenda in world educational development. International organizations, in particular, the United Nations (UN) and United Nations Educational, Scientific and Cultural Organization (UNESCO), have been playing an irreplaceable role in promoting the development of research and policies across the globe. For instance, the Universal Declaration of Human Rights (UN, 1948, Art. 26) and the Convention on the Rights of Persons with Disabilities (UN, 2006, Art. 24) reaffirmed that "everyone has the right to education". In addition, the Statements and Frameworks for Action from UNESCO to enhance inclusion in education have been released in succession since 1994.

However, there is still a gap between the acceptance of inclusive education by the signature of state parties and active and effective inclusive practices in the classrooms (Qu, 2019; Boyle et al., 2020). As one of the state parties, China[1] has attempted to promote inclusive education from national government policies and regulations to local practices. To ensure an effectively equitable education for disabled children, China has implemented a practical model of inclusive education---LRC (Learning in the Regular Classrooms) initiative since the 1980s. The National People's Congress (NPC) ratified the Convention on the Right of Persons with Disabilities in 2008, with a significant commitment to inclusion for all. Furthermore, the Regulation on the Education of People with Disabilities, revised in 2017, claims that "promote inclusive education for

---

[1] China's official name is People's Republic of China. In this study, the term *China* will make reference to mainland China.

people with disabilities and encourage disabled students to study in regular schools" (Ministry of Education the People's Republic of China (MOE), 2017, Art. 3). Nine key government documents were created to promote Chinese inclusive education until 2019 (Qu, 2019).

What's more, there are many local inclusive practices, such as the 1+5+N project: using a three-level resource room system to promote inclusive education, which was initially proposed by the director of the special education center of the Shuangliu District in Sichuan province in the southwest of China (European Agency for Special Needs and Inclusive Education, 2020). As a model, this project gained positive local and national government feedback. Despite these commitments and efforts, educational practitioners showed their anxiety and incapability to teach students with disabilities in regular schools (China Disabled Persons' Federation (CDPF), 2019). According to the latest data, even though 95% of school-aged children (MOE, 2020) can go to local schools to receive education in China, their needs are well accommodated in inclusive settings remains questionable (Yang & Zhang, 2018; Pang, 2017; Yu, 2016; Deng & Poon-McBrayer, 2012).

Teachers are the most significant and costly resource in schools; their teaching is of high quality, and all students have access to high-quality teaching (OECD, 2005). Education has never been stagnant, and today educators face the double challenges of keeping pace with rapid advances in education research while also adapting to the social and political circumstances (Baztan et al., 2016), especially within the vision of inclusive education. In fact, underlying the process of inclusion is the assumption that the general classroom teacher has "certain knowledge and understanding about the needs of different learners, teaching techniques and curriculum strategies" (European Agency for Special Needs and Inclusive Education, 2010, p. 9).

In 2017, Save the Children, an international non-governmental organization conducted a survey on inclusive education in China. It found that 77% of teachers teach or have taught students with special educational needs, but 60% never received special

educational or inclusive training (Save the Children, 2017). Only 30% of teachers gained no-systemic training (Save the Children, 2017). It is not easy for regular teachers without enough teaching training for teaching students with special needs to design and develop an appropriate individualized curriculum.

Regular teachers who have an awareness of inclusion are central to successful inclusion (Thomas et al., 1998). However, the investigations in China showed that a large number of regular teachers hadn't obtained the teaching strategies or methods to respond to students with special educational needs. For example, a survey aimed to explore the curricular and instructional adaptation for inclusive education in the elementary school in Chengdu and Chongqing found that regular teachers rarely adapted their curriculum and instruction due to insufficient time, insufficient self-competence, and large class size (Wei et al., 2018). Another survey in Beijing also revealed that regular teachers in primary and secondary schools had many problems in the design and adaptation of inclusive curriculum, and the individualized education plan (IEP) for children with special educational needs couldn't be implemented completely. Wang et al. (2020) investigated 228 inclusive education leaders, resource teachers, and teachers in regular schools. They found that teachers had positive attitudes towards IEP but had difficulties implementing IEP because of inadequate professional knowledge and skills, limited energy and teamwork, and insufficient teacher training.

There is more research to explore teaching strategies or methods to promote inclusive education in the Chinese context. Xing (2017) claimed that well-prepared lessons and a practical teaching design were the foundation of promoting teaching efficiency and quality in the regular class. Paying attention to the participation and experience of students with special educational needs and using diverse assessment strategies are also important teaching strategies for realizing inclusion in education (Xing, 2017).

Differentiated instruction is one of the teaching strategies examined to support inclusive practices in Chinese schools. Hua (2011) perceived that differentiated instruction is an essential teaching strategy for education reform and inclusive education. Implementing

these strategies depended on school management, support, and teacher training to obtain the teaching strategies. Lv (2006) analyzed differentiated instruction's theoretical basis, purpose, and practices. Hua and Li (2006) supposed that using differentiated instruction teaching strategies was an effective way to improve the quality of inclusive education in regular schools. Deng & Jing (2012) introduced some teaching strategies in international research to China: Individualization, co-teaching and cooperative learning, and differentiated teaching and curriculum. Aimed at promoting inclusive education in China, this thesis will examine the current situation of nine inclusive teaching strategies in Chinese primary schools by reviewing international and prior Chinese research and collecting the perspectives of the teachers and students in the regular class.

2. Research questions and objectives

The key to addressing the research problem is to create a rigorous inquiry framework (Peel, 2020). As presented in Figure 1, Butler (2011) and Peel (2020) framed a six-stage inquiry framework to guide beginner researchers in qualitative research. The framework consists of the identification of an issue, the data collection, the preparation and initial engagement with data, the thematic analysis, the interpretation of findings, and the communication of the research.

Figure 1 Research inquiry framework

Source: Butler, 2011, p. 349; Peel, 2020, p. 5.

1. Identify the issue. "What is known about the issue already? What questions arise as the issue narrows from the central question to the identification of an underexplored aspect of significance?" (Peel, 2020, p. 5) The first step of research is to identify the research question through available literature. Meanwhile, to discover the gap between the existing literature and justify the significance of the research issue.

2. Collect the data. The next step is data collection. To address the research questions, diverse data is collected from representative sample participants in the research context. It is essential to illustrate the participants' selection, sites, instruments, and reasons for these decisions (Duran et al., 2006). In educational research, participants usually are teachers, students, school leaders, or educational academics. And the research instruments mainly include observations, focus groups, and interviews. Before conducting the investigation, research tools should be well-prepared considering the ethical issues. For example, an interview protocol should be designed that involves the researcher's information, research background, and purposes. After obtaining the signed consent of participants, the interview begins, and the interview process is recorded. On the one hand, it "employs multiple sources of evidence to guarantee descriptive detail for a rich, in-depth discussion and robust interpretation" (Peel, 2020, p. 6). On the other hand, diverse data need triangulation to enhance credibility.

3. Prepare and engage with the data. Complete the transcripts, listen to recordings again and revise the transcripts. Prepare the data for thematic analysis. 4. Analyses thematically. The thematic analysis is used "to organize and simplify the complexity of the data into meaningful and manageable codes, categories and themes" (Peel, 2020, p. 7). 5. Interpret the data analysis. Interpret the analysis and produce insightful findings to answer the research questions. 6. Compose the research paper. Finally, report the research findings.

Considering the research inquiry framework mentioned previously, the current study

examines the current status of inclusive teaching strategies in Chinese primary schools. According to the complexity of the research problems, mixed methods research was adopted to explore inclusive teaching strategies from different levels and aspects of this topic. Because the mixed methods research has its ability to provide completeness, explanation and unexpected results on the research questions (Bryman, 2006). Researchers have been reminded that the fundamental principle of mixed methods research should be kept in mind during the whole study. The basic principle of mixed methods research is:

> Thoughtfully and strategically mix or combine qualitative and quantitative research methods, approaches, procedures, concepts, and other paradigm characteristics in a way that produces an overall design with multiple (divergent and convergent) and complementary strengths (broadly viewed) and nonoverlapping weaknesses (Johnson & Christensen, 2014, p. 651).

The researcher first reviewed the literature on inclusive education and teaching strategies to frame a conceptual framework. By searching the keywords in the electric databases (e.g., ERIC, EBSCO, Springer, google scholar), the researcher developed a broad knowledge base on inclusive education and inclusive teaching strategies to design research instruments and analyze the current situation of inclusive teaching strategies in China. The key research question: What's the current situation on inclusive teaching strategies in primary schools from teachers' and students' perspectives? The specific questions are:

> *RQ1: How are the school values and attitudes toward inclusive education from teachers' and students' perspectives?*

> *RQ2: How are the school management and environment in relation to inclusive education from teachers' and students' perspectives?*

> *RQ3: What inclusive teaching strategies do teachers use to support student learning in regular classrooms from teachers' and students' perspectives?*

This study aims to develop inclusive education at primary schools by analyzing inclusive teaching strategies. An explanatory sequential mixed methods design will be used that involves collecting quantitative data first and then explaining the quantitative results with in-depth qualitative data. In the first quantitative phase of the study, numeric data from teacher questionnaires and student questionnaires will be collected from teachers and students in regular primary schools in Shenzhen City. The second qualitative phase will be conducted as a follow-up to the quantitative results to help explain the inconsistent findings from the teacher questionnaire and student questionnaire. In this exploratory follow-up, the tentative plan is to explore why teachers and students have distinct perspectives on inclusive teaching strategies. So, the general objective is to analyze teachers' and students' perspectives on inclusive teaching strategies in Chinese primary schools. And the specific goals are as follows:

- To identify school values and attitudes toward inclusive education in regular primary schools;

- To examine school management and environment concerning inclusive education in sample schools;

- To identify the use of inclusive teaching strategies in these regular primary schools.

3. Significance of the study

To cater to students' needs, regular school teachers need to exploit inclusive teaching strategies. This study examined the use of inclusive teaching strategies in Chinese primary schools. The present study contributes to the research knowledge about inclusive teaching strategies for policymakers and researchers.

The study provides insights into informing policy concerning inclusive practices in China, especially using inclusive teaching strategies. Policymakers should reflect on their policies to promote the implementation of evidence-based teaching strategies in regular Chinese primary schools. The W school can be taken as a good example of developing inclusive practices, and other local primary schools can learn many specific

methods to promote inclusive teaching in their schools. The local government and school leaders should support teachers in understanding the concept of inclusive education and pay attention to some teachers and male students who may need more guidance and support to develop their inclusive values and positive attitudes toward inclusive education.

Additionally, we are contributing to enriching empirical research on inclusive teaching in developing countries. "There is no one single model of inclusive education that suits every country's circumstances" (Mitchell, 2005, p. 19). More than half of publications and 75% of citations on inclusive education research emerge from developed countries, such as the United States, the United Kingdom, Australia, and Canada (Hernández-Torrano et al., 2020). International researchers should pay attention to the research on inclusive practices in Asian countries and reflect on global developments in inclusive education.

4. My stance

Inclusive education is a broad rights-based concept. Including children in the regular education system is "an entitlement and a fundamental human right regardless of their gender, ethnicity, ability, the language of choice, socio-economic background, health or medical condition (Douglas, 2021, p. 5). While acknowledging all children should receive education in regular schools, the researcher focused on students with special educational needs in the present study. Moreover, the researcher takes a social model approach to disabilities "aimed at overcoming socially constructed barriers and empowering both individuals and society as a whole" (Douglas, 2021, p. 4).

5. Structure of the study

The present study comprises six chapters. Chapter one has given an overview of the research issues. The primary research purpose of the present study to develop inclusive education by examining the current situation of inclusive teaching strategies in Chinese regular primary schools is justified before the significance of the study and the

researcher's stance are presented.

Chapter two reviews the prior literature on inclusive education from a global and national perspective. Firstly, deepen the understanding of the concepts of "diversity", "special educational needs", and "inclusive education". The international perspectives on inclusive education, in particular, the efforts and commitment of the UN and UNESCO, are discussed as important driving forces to promote inclusive education. The development of inclusive education in China is introduced, including national legislation and policies on inclusion and teacher education. In addition, the relevant literature on inclusive education is summarized into three aspects as a fundamental base for developing research instruments. Moreover, nine teaching strategies are reviewed as an essential component of the implementation of inclusive education.

In Chapter three, the methodology of the study is specified on how to design the research to achieve the research purpose. Firstly, mixed methods research is introduced and elaborated on why this approach best addresses the research questions. And research design, ethical consideration, and context are presented. Last part of this Chapter details the mixed methods research design in two phases involving: participants, instruments, procedure, and data collection and analysis.

Chapter four presents the results of two phases. The depiction of the results starts with the findings of teacher and student questionnaires in the quantitative phase. According to the items in the questionnaire, descriptive statistics are presented. The independent sample t-tests and analysis of variance (ANOVA) are conducted to further explore the significant differences between different variables. Additionally, the findings of the teacher interview are presented in accordance with three dimensions. Furthermore, triangulation of quantitative and qualitative results is put forward to offer new knowledge that is not solely from the quantitative or qualitative results.

In Chapter five, compared with prior research on inclusive education and teaching strategies, the findings of this study are discussed. Some findings are consistent with the other studies: Despite lots of barriers and difficulties, teachers still apply some

inclusive teaching strategies to meet the different needs of students with special educational needs. Other findings provide new insights into inclusive teaching strategies for policymakers and researchers.

Chapter six presents the conclusion of this study, including "answering the research questions", "recommendation", "limitations", and "future research". In responding to three research questions, teachers' and students' perspectives are concluded in relation to three dimensions. Based on the previous analysis and discussion, the recommendation is put forward for enhancing Chinese inclusive education in regular primary schools. Moreover, limitations that might have an impact on the interpretation of the findings are presented. And the researcher proposes some suggestions for future research building upon the outcome of this study.

Chapter 2: Literature framework

This Chapter will review the prior literature of diversity, special educational needs, and inclusive education. The concepts and international perspectives of inclusive education are presented as the base of this study. And the researcher will give a bief introduction to inclusive education in China, including the inclusive education policies and teacher education policies related to inclusive education. More details of relevant aspects of inclusive education are presented. Last section will review the previous research on nine inclusive teaching strategies.

1. Diversity, special educational needs and inclusive education

1.1. Diversity

Diversity refers to "people's differences which may relate to their race, ethnicity, gender, sexual orientation, language, culture, religion, mental and physical ability, class, and immigration status" (UNESCO, 2017, p. 7). Children with diverse backgrounds are ones "who usually fall outside of (are excluded from) the mainstream educational system due to gender, physical, intellectual, social, emotional, linguistic, cultural, religious, or other characteristics (Harris et al., 2004, p. 10).

Figure 2 A model of a culturally inclusive school

Source: Rashid &Tikly, 2010, p. 9.

In 2010, the British council provided guidelines for inclusion and diversity based on

the Inclusion and Diversity in Education (INDIE) project between eleven countries across Western Europe. The project was created to develop best practices and shared guidelines for policymakers and head teachers on building and developing culturally inclusive schools. Based on the research evidence from different countries, the participants of the projects finally draw on a model of the culturally inclusive school, as shown in Figure 2.

The edge in the box represents the context of the school, involving the legal, policy, and funding environment and community support. Each circle represents an aspect of best practices in a culturally inclusive school. There are nine aspects of best practice. Rashid &Tikly (2010) gave some examples to illustrate each aspect of the model. Specifically, the government should support schools to create an enabling environment with a suitable legal framework, policy, and financial environment. All learners are ensured to have access to schools and benefit from inclusion and diversity in the curriculum by effective inspection systems. Teacher training in inclusion and diversity has become a key priority in developing a culturally inclusive school. Learner voice should be heard to address the issues of inclusion and diversity. Local government is pivotal in supporting schools to become more inclusive and diverse. It is critical for parental and community engagement and support to develop an inclusive school. At the school level, leadership, high expectations, and achievement for all, responding positively to diversity are crucial factors in promoting inclusion and diversity.

In 2021, the British council (Douglas, 2021) claimed that "equality, diversity, and inclusion" are fundamental values for creating respectful and safe environments. They focus on six areas of diversity: age, disability, ethnicity or race, gender, religion or belief, and sexual identity. They explain that "diversity is concerned with creating an environment supported by practices which benefit the organization and all those who work in and with it" (British council, 2022, p. 3-4). Understanding and valuing diversity leads to "greater participation with benefits at an individual, team, organization and wider societal level" (British council, 2022, p. 4). That is, valuing diversity supports inclusion.

In China, the 1995 Education Law, as amended in 2021, claims that "all citizens enjoy equal opportunities for education in accordance with the law, regardless of their nationality, race, sex, occupation, property status or religious beliefs" (NPC, 2021, Art.9) and reaffirms that "the State supports and develops the education of persons with disabilities" (NPC, 2021, Art.10). Inclusive education in China, mainly refers to the education of children with disabilities, gender, ethnic and linguistic groups, living in rural or remote areas, poverty and migrants (UNESCO, 2021). However, this study focused on inclusive education in relation to students with special educational needs.

1.2. Special educational needs or disabilities

There are many definitions of "special education needs" and "disabilities". Students with "special educational needs" are "children who require greater attention to help them with their learning" (Harris et al., p. 12). The attention can be given in either special or regular schools or classrooms. "Special educational needs" is "a term used in some countries to refer to children with impairments that are seen as requiring additional support" (UNESCO, 2017, p. 7). These definitions revealed that students with special education needs needed more support for learning and participation. The 1994 Salamanca Statement defined "special educational needs". Children with special educational needs are: "All those children and youth whose needs arise from disabilities or learning difficulties (UNESCO,1994, p. 6)".

"Children with disabilities" includes "those children with physical, sensory, emotional, or intellectual disabilities and who are oftentimes excluded from learning in schools" (Harris et al., 2004, p. 11). Harris et al. (2004) also indicated that disabilities might be born or acquired because of illness, accidents, or other causes. Not all children with disabilities may be children with special educational needs.

Douglas (2021) defined special education needs and disability together. Special educational needs and disability refers to "pupils who have identified needs concerned with, for example, communication and interaction, cognition and learning, social, emotional and mental health or sensory and/or physical needs" (Douglas, 2021, p. 10).

She thought that children with special education needs or disabilities needed more support in learning according to their characteristics.

According to the Law on Compulsory Education of the People's Republic of China in 1986, the state offers education to the blind, deaf, mute, and other "handicapped citizens" (NPC, 1986, Art. 9). In 1990, the Law of the People's Republic of China on the Protection of Persons with Disabilities (PPD) as revised in 2018, gave a definition of disabilities. "The term 'a person with disabilities' refers to one with visual, or hearing, or speech, or physical, or intellectual, or psychiatric disability, multiple disabilities and/or other disabilities" (State Council of the People's Republic of China, 1990, Art. 2). The scope of disabilities is broadened into seven types. Furthermore, the right of persons with disabilities to education was guaranteed by the State (ibid, Art.21). Currently, the broader definition is imperative due to more students' access to regular schools under the comprehensive implementation of inclusive education. The 2021 14th Five-Year Promotion Action Plan on Special Education pointed out that "special education is an important component of education, mainly for children and adolescents with visual, or hearing, or speech, or physical, or intellectual, or psychiatric disability, multiple disabilities and/or other special educational needs" (MOE, 2021, p. 1).

According to the new definition, the researcher used the term "special educational needs" or "children with special educational needs" or "students with special educational needs" in this thesis to respond how teachers use inclusive teaching strategies to support student learning accompanying students with new and more types of disabilities receiving education in regular schools. Children with "special educational needs" are ones "who exhibit difficulty in learning, who excel at learning, who have atypical behaviours or who deviate from the established norms of the education system" (Hunt, 2020, p. 8). It is worth noting that the researcher focused on children with special educational needs because of the research needs. And the researcher agreed with Hunt (2020) that "to broaden the discourse, the next wave of inclusion research and development has to focus on other vulnerable groups" (p. 7).

1.3. Different concepts of inclusive education

Education is a fundamental human right (UN, 1948). Inclusive education is seen as central to human rights (Winter & O' Raw, 2010). Inclusive education has become a key topic in educational research since the Salamanca Statement. "Schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions" (UNESCO, 1994, p. 6). They called upon all the countries to implement inclusive education for every child and provide an appropriate education for them. After that, a movement for inclusive education was launched towards the world. Furthermore, concepts of inclusive education have affected the education systems of other countries.

The principle of an inclusive education system full of tolerance, diversity, and equity may be uncontested; however, how to achieve this is much more challenging (Winter & O' Raw, 2010). One of the reasons is that inclusion is an elusive concept (Ainscow, 1999; Winter & O' Raw, 2010). There is no single definition that has been universally accepted (Florian, 1998; Forlin et al., 2013; Amor et al., 2018). The definitions vary according to the researchers' research objectives and focus. Furthermore, there is a conceptual shift of inclusive education, focusing on the student with special needs to children with all kinds of physical, cognitive, and social backgrounds (Amor et al., 2018). The researcher listed the researchers' different definitions of inclusive education.

Table 1 A list of researchers' definitions of inclusive education

Researchers	Definitions
Ainscow et al., 2006, p. 15	a) Inclusion as concerned with disability and 'special educational needs' (SEN); (b) Inclusion as a response to disciplinary exclusions; (c) Inclusion as about all groups vulnerable to exclusion; (d) Inclusion as the promotion of the school for all; (e) Inclusion as 'Education for All'; (f) Inclusion as a principled approach to education and society.

Amor et al., 2018, p. 2	Inclusive education is a matter of adopting a socio-ecological approach regarding the interactions between students' capabilities and environmental demands, stressing that educational systems must adapt to and reach all students.
Deng, 2016, p. 15	All children are enrolled in regular classes or schools appropriate to their age level and learning characteristics, and are provided with a high quality, effective education through the multiple collaboration, so that all children can develop to their full potential.
Engelbrecht et al., 2017, p. 684	Inclusive education is generally seen as being not only about access to education, but also acceptance and participation, and the promise of quality education for all.
Harris et al., 2004, p. 10	The inclusion and teaching of all children in formal or non-formal learning environments without regard to gender, physical, intellectual, social, emotional, linguistic, cultural, religious, or other characteristics.
Kurth & Gross, 2014, p. 5	Inclusive education "means that a student must have access to all of the supports and services he or she will need to participate fully in general education activities and curriculum".
Maclean, 2017, p.528	Inclusive education is an "increasingly contentious term that challenges educator and education systems".

Source: Ainscow et al., 2006; Amor et al., 2018; Deng, 2016; Engelbrecht et al., 2017; Harris et al., 2004; Kurth & Gross, 2014; Maclean, 2017.

Ainscow et al. (2006) defined inclusive education in six main categories from theoretical aspects. Messiou (2017) thought that these categories summarized and reflected the main positions of inclusive education. Amor et al. (2018) adopted a socio-ecological approach to address all students' needs through the transformation of educational systems. This definition by Deng (2016) highlighted the importance of collaboration and partnership between teachers and parents, communities, school staff and leaders, professionals, and governments. Engelbrecht et al. (2017) expressed that inclusive education also referred to provide quality education for all. Harris et al. (2004)

stressed that teaching all children, regardless of their characteristics. Kurth & Gross (2014) indicated that implementing inclusive education is not only about the students' access but also about student participation and achievement. Maclean (2017) considered that inclusive education was controversial to bring many challenges to implement it in reality.

Moreover, some organizations gave definitions of inclusive education to encourage more countries and schools to advocate and implement it. The researcher also made a summary of organizations' definitions of inclusive education.

Table 2 A summary of the definitions of inclusive education from organizations

Organization	Definitions of inclusive education
CSIE (Center for Studies in Inclusive Education), 2002, p. 2	All children and young people - with and without disabilities or difficulties - learn together in the ordinary pre-school provision, schools, colleges, and universities with appropriate networks of support. Inclusion means enabling all students to participate fully in the life and work of mainstream settings, whatever their needs.
UN, 2016, p. 3	A fundamental human right of all learners; A principle that values students' wellbeing of all students, respects their inherent dignity, autonomy, and acknowledges individuals' requirements and their ability to effectively be included in and contribute to society; A means of realizing other human rights; The result of a process of continuing and proactive commitment to eliminating barriers impeding the right to education and together with changes to culture, policy, and practice of regular schools to accommodate and effectively include all students.
UNESCO, 2005, p.13	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 a range of changes and modifications in content,

	approaches, structures and strategies, with a common vision that 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, 2009, p. 8	Inclusive education is a process of strengthening the capacity of the education system to reach out to all learners and can thus be understood as a key strategy to achieve EFA.
UNESCO, 2017, p. 7	Inclusive education is a process of strengthening the capacity of the education system to reach out to all learners.
UNESCO, 2019, p. 6	All students can access and fully participate in learning, supported by reasonable accommodation teaching strategies tailored to meet their individual needs.
UNICEF, 2017, p. 1	An education system that includes all students, and welcomes and supports them to learn, whoever they are and whatever their abilities or requirements.

Source: CSIE, 2002; UN, 2016; UNESCO, 2005; UNESCO, 2009; UNESCO, 2017; UNESCO, 2019; UNICEF, 2017.

CSIE (2002) pointed out that the implementation of inclusive education can enable schools to meet all students' needs in regular classrooms. UN (2016) required to eliminate the barriers in the culture, policy, and practice of regular schools to include all students in the schools and society based on human rights. The definitions of UNESCO (2005,2009, 2017, 2019) are different, but the nature of these definitions is familiar: educate all students in the regular system by enabling schools and transforming education systems. The definition of UNICEF also highlights the Education for All and supports students to learn by ensuring "teaching and the curriculum, school buildings, classrooms, play areas, transport, and toilets are appropriate for all children at all levels" (UNICEF, 2017, p.1).

Forlin et al. (2013) summarized the definitions of inclusive education into two groups: "a) those who detail features of inclusion, and b) those who identify and describe barriers to inclusion that must be removed" (p. 7). For example, the definition of Ainscow et al. (2006), who described the categories of inclusive educational

environments, is in the second category. Loreman (2009) stipulates the features of an inclusive school for all children, as shown in Table 3. These definitions are in the first category.

Table 3 Seven key features of inclusive education

1. All children attend their neighborhood school. Schools and districts have 'zero-rejection' policy when it comes to registering and teaching children in their region.
2. All children are welcomed and valued.
3. All children learn in regular, heterogeneous classrooms with same-age peers.
4. All children follow substantively similar programmes of study, with curriculum that can be adapted and modified if needed. Modes of instruction are varied and responsive to the needs of all.
5. All children contribute to regular school and classroom learning activities and events.
6. All children are supported to make friends and to be socially successful with their peers.
7. Adequate resources and staff training are provided within the school and district to support inclusion.

Source: Loreman, 2009, p. 43.

UN (2016) also identified the nine core features of inclusive education:

- A "whole systems" approach: …all resources are invested in advancing inclusive education and in introducing and embedding the necessary changes in institutional culture, policies and practices

- A "who educational environment": …is essential for introducing and embedding the culture, policies and practices needed to achieve inclusive education at all levels and in all areas…

- A "whole person" approach: recognition is given to the capacity of every person to learn, and high expectations are established for all learners, including learners with disabilities. Inclusive education offers flexible curricula and teaching and learning methods adapted to different strengths, requirements and learning styles…aims at ending segregation within educational settings by ensuring inclusive classroom

teaching in accessible learning environments with appropriate supports…

- Supported teachers: all teachers and other staff receive the education and training they need to give them the core values and competencies to accommodate inclusive learning environments, which include teachers with disabilities…

- Respect for and value of diversity: all members of the learning community are equally welcome and must be shown respect for diversity irrespective of disability, race, colour, sex, language, linguistic culture, religion, political or other opinion, national, ethnic, indigenous or social origin, property, birth, age or other status. All students must feel valued, respected, included and listened to…

- A learning-friendly environment: inclusive learning environments are accessible environments where everyone feels safe, supported, stimulated and able to express themselves and where there is a strong emphasis on involving students in building a positive school community…

- Effective transitions: learners with disabilities receive support to ensure the effective transition from learning at school to vocational and tertiary education and, finally, to work…

- Recognition of partnerships: teacher associations, student associations and federations, organizations of persons with disabilities, school boards, parent-teacher associations and other functioning school support groups, both formal and informal, are all encouraged to increase understanding and knowledge of disability…

- Monitoring: as a continuing process, inclusive education must be monitored and evaluated on a regular basis to ensure that neither segregation nor integration are taking place, either formally or informally. According to article 33, monitoring should involve persons with disabilities, including children and persons with intensive support requirements, through their representative organizations, as well as parents or caregivers of children with disabilities, where appropriate. (UN, 2016, p. 4-5)

This definition is in the first category because of capturing the core features of inclusive education. Overall, inclusive education involves providing education to all learners, regardless of their race, ethnicity, gender, sexual orientation, language, culture, religion,

mental and physical ability, class, and immigration status.

2. International perspectives on inclusive education

2.1. International conventions and declarations on inclusive education

The United Nations (UN) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) have been dedicated to advancing inclusive education in the world (Kiuppis, 2014; Mundy, 2016). A substantial amount of literature gives reference to conventions and declarations of the UN and UNESCO as the origin of inclusive education thinking (Kielblock, 2018). The most familiar statement on inclusive education is Salamanca Statement (UNESCO, 1994). In fact, the earlier year Universal Declaration of Human Rights first expressed the right to education. "Everyone has right to education" (UN, 1948, Art.26). Later, the 1960 UNESCO Convention against Discrimination in Education required countries to eliminate any discrimination in education, such as "any distinction, exclusion, limitation or preference which, being based on race, color, sex, language, religion, political or other opinion, national or social origin, economic condition or birth" (UNESCO, 1960, Art. 1).

The 1989 UN Convention on the Rights of the Child stressed that "every child has the right to an education" (Art. 28). A particular article refers to the disabled child.

> Recognizing the special needs of a disabled child…shall be provided free of charge…have effective access to and received education…to the child's achieving the fullest possible social integration and individual development… (UN, 1989, Art. 23).

The 1990 World Declaration on Education for All, Jomtien, Thailand, repeated that everyone has a right to education in the Universal Declaration of Human Rights, and "recalling the education is a fundamental right for all people, women, and men, of all ages, throughout our world" (UNESCO, 1990, p. 2). In addition, the declaration

asserted universalizing access to basic education. "Basic education should be provided to all children" (UNESCO, 1990, p. 2). And it promoted equity toward disabled children.

> The learning needs of the disabled demand special attention. Steps need to be taken to provide equal access to education to every category of disabled persons as an integral part of the education system. (UNESCO, 1990, p. 3)

However, the Jomtien World Declaration was criticized by some researchers after 1990. For instance, Ainscow and Miles (2008) thought that this World Declaration might leave too much room to translate the commitments, so that little implementation happened in the different countries. Although children with disabilities were included in the declaration, the focus of the declaration was not on inclusive education but on the learning process (Hunt, 2020).

The 1994 Statement and Framework for Action of the World Conference on Special Needs Education in Salamanca reaffirmed the ideas of the Universal Declaration of Human Rights and the commitment to Education for All. The guiding principle of inclusive education was proposed:

> Schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions. This should include disabled and gifted children, street and working children, children from remote or nomadic populations, children from linguistic, ethnic or cultural minorities and children from other disadvantaged or marginalized areas or groups (UNESCO, 1994, p. 6).

Though the terms "special needs education" and "inclusion" are used in the statement, the "persistent but flawed link between special education and inclusion" (Hunt, 2020, p. 10) has been created since then.　　In 2000, World Education Forum was held in Dakar. The outcome of Dakar Framework for Action claimed that inclusive education emerged "in response to a growing consensus that all children have the right to a common education in their locality regardless of their background, attainment or disability" (UNESCO, 2000, p. 18)

Mundy (2016) described a new "Dakar era" (p. 9) to boost inclusive education after this conference because the commitment to inclusive education is explicit "with a call for quality learning, full participation, protection against discrimination, a diversified education system, flexible curriculum, information and communication technology and, more importantly, respect and promotion of diversity" (Hunt, 2020, p. 10). The Dakar Framework for action was translated and achieved by different countries in the following 15 years (Mundy, 2016).

In 2006, the UN Convention on the Rights of Persons with Disabilities (CRPD) reaffirmed the right to education for all children and adopted the term "inclusive education":

> States Parties shall ensure an inclusive education system at all levels and lifelong learning directed to:
>
> (a) The full development of human potential and sense of dignity and self-worth, and the strengthening of respect for human rights, fundamental freedoms and human diversity;
>
> (b) The development by persons with disabilities of their personality, talents and creativity, as well as their mental and physical abilities, to their fullest potential;
>
> (c) Enabling persons with disabilities to participate effectively in a free society (UN, 2006, Art. 24).

The Convention mentioned their purpose is to "promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity" (Art. 1). In order to realize the rights of persons with disabilities, the States Parties should provide reasonable accommodation and promote universal design in the development of universally designed goods, services, equipment, and facilities. In addition, CRPD Articles 33 and 34 require the State Parties to report their work in the process of protecting the rights of children with disabilities every four years (United Nations Department of Economic and Social Affairs (UNDESA), 2019).

However, there are still some controversial discussions on this Convention, such as the issues of placement. Even the final text does not mention that children with disabilities should learn in regular schools (Kanter, 2017). Thus, General Comment No.4 On Article 24 of the Convention on the Rights of Persons with Disabilities was published in 2016. "It clarified the meaning and intention of the right to inclusive education and defined inclusive education more thoroughly than either the Salamanca Declaration or the CRPD" (UNESCO, 2020a, p. 31). The definition of inclusive education and core features is in Section 1.3. The General Comment "is the de facto global development policy on inclusive education because it outlines the critical policy considerations and implementation guidelines for inclusive for all UNCRPD signatory and ratifying countries" (Hunt, 2019, p. 116). Previously, the Committee on the Rights of Persons with disabilities does not explicitly express against educational placement outside the mainstream system, such as special education for children. They suggested to parents that children with disabilities learning in a special school was one of the educational placements when there is no suitable option for them (Committee on the Rights of persons with disabilities, 2011). However, nowadays, they claim that children with disabilities should be educated in the mainstream education system.

> "Measures should be taken to view inclusive education as a right, and grant all students with disabilities, regardless of their personal characteristics, the right to access inclusive learning opportunities in the mainstream education system, with access to support services as required" (Committee on the Rights of persons with disabilities, 2019, p. 10).

In 2008, a key event to promote inclusive educational policies and practice across the world was the 48th session of the UNESCO International Bureau of Education (IBE) International Conference on Education "Inclusive Education: The Way of the Future". Member States were required to adopt an inclusive education approach in the design, implementation, monitoring, and assessment of educational policies to promote EFA and build more inclusive societies (UNESCO IBE, 2009).

Recently, international organizations have worked to "promote inclusive education as a right for all learners" (Kefallinou, Symeonidou & Meijer, 2020, p. 135). In 2015, Goal 4 of the UN 2030 Agenda for Sustainable Development was set to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (UN, 2015). It acknowledges and emphasizes inclusion and equity as laying the foundations for quality education and learning to guide educational policies and practices. In order to support the government in accelerating development worldwide towards inclusive education, UNESCO Guide was developed to "create system-wide change for overcoming barriers to quality educational access, participation, learning processes and outcomes, and to ensure that all learners are valued and engaged equally" (UNESCO, 2017, p. 10). At the European level, inclusive education is also confirmed its significance for all learners, especially those with special educational needs (Council of the European Union, 2018; European Union Agency for Fundamental Rights, 2020). The researcher made a summary of the international conventions and declarations that have shaped inclusive education thinking in Table 4.

Table 4 Legal frameworks in support of inclusion 1948-2016

Year	International conventions and declarations
1948	Universal Declaration of Human Rights
1960	Convention against Discrimination in Education
1965	International Convention on the Elimination of All Forms of Racial Discrimination
1979	Convention on the Elimination of All Forms of Discrimination against Women
1989	Convention concerning Indigenous and Tribal Peoples in Independent Countries
1989	Convention on the Rights of the Child
1990	International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families

1999	Convention concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour
2005	Convention on the Protection and Promotion of Diversity in Cultural Expressions
2006	Convention on the Rights of Persons with Disabilities
2007	United Nations Declaration on the Rights of Indigenous Peoples
2008	48th session of the UNESCO International Bureau of Education (IBE) International Conference on Education "Inclusive Education: The Way of the Future"
2015	Incheon Declaration
2016	General Comment No.4 On Article 24 of the Convention on the Rights of Persons with Disabilities

Source: The researcher elaborated.

2.2. Challenges for developing inclusive education

In 2019, the 25th anniversary of the World Conference on Special Needs Education was held in the city of Salamanca by the Ministry of Education and Science of Spain and UNESCO. This anniversary affirmed all countries' contributions to developing inclusive education since the publication of the *Salamanca Statement* (UNESCO, 1994) and re-endorsed the idea of inclusive education. Despite much progress in the development of inclusive education across countries, we are still on the road to realizing the rights of all. For example, while 68% of countries have a definition of inclusive education, only 57% of those definitions mention multiple disadvantaged groups (UNESCO, 2020a). The development of inclusive education has a number of challenges to accommodate all students in the mainstream education system.

2.2.1. Education for all

Review and reflect on the global development during the last several decades, one of the challenges across the world to develop inclusive education is Education for all.

"Education for all is the foundation of inclusion in education" (UNESCO, 2020a, p. 6). The Education for All (EFA) movement "has progressively chronicled cohorts of excluded students and mobilized governments, education authorities, non-government organizations and civil society to advance inclusive education" (Slee, 2018, p. 2).

Although the term used in the Salamanca Statement was "special needs education", the purpose of educational reform is to develop inclusive education systems benefiting all (Ainscow, Slee & Best, 2019). That is to say:

> Regular schools with inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all; moreover, they provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system (UNESCO, 1994, p. ix).

Regular schools with inclusive orientation can provide education for all and effectively move forward into an inclusive society. Despite some ambiguities in the Salamanca Statement, the statement, in conjunction with other significant documents, drives continuous progress on inclusive education on the international level. For example, the United Nations Education for All (EFA) movement promotes the quality basic education available to every school-aged child. The World Education Forum was held in Dakar in 2000 to emphasize the EFA. All participants in the Forum approved the Dakar Framework. It reaffirmed that

> all children, young people and adults have the human right to benefit from an education that will meet their basic learning needs in the best and fullest sense of the term, an education that includes learning to know, to do, to live together and to be (UNESCO, 2000, p. 8).

This Forum paid special attention to the poor and the disadvantaged, including ethnic and linguistic minorities, working children, children affected by conflict, HIV and AIDS, hunger, and poor health. The Dakar Framework set six EFA goals:

(i) expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children;

(ii) ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete, free and compulsory primary education of good quality;

(iii) ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programmes;

(iv) achieving a 50 per cent improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults;

(v) eliminating gender disparities in primary and secondary education by 2005, and achieving gender equality in education by 2015, with a focus on ensuring girls' full and equal access to and achievement in basic education of good quality;

(vi) improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills. (UNESCO, 2000, p. 9)

These goals required all the participants' commitment to EFA by the year 2015. This Framework put forward six regional frameworks for action according to its specific context and different challenges. It involved sub-Saharan Africa, the Americas, the Arab States, Asia and the Pacific, Europe, and North America, and E-9 Countries.

The 2015 World Education Forum took place in Incheon, Republic of Korea. The vision of Education for All was reiterated by the participants. The ambition of establishing education for all students in the Incheon Declaration is consistent with SDG 4 (UNESCO, 2015). The Incheon Declaration stated:

Inclusion and equity in and through education is the cornerstone of a transformative education agenda, and we therefore commit to addressing all forms of exclusion and marginalization, disparities and inequalities in access, participation and

learning outcomes. No education target should be considered met unless met by all. We therefore commit to making the necessary changes in education policies and focusing our efforts on the most disadvantaged, especially those with disabilities, to ensure that no one is left behind. (UNESCO, 2015, p. iv)

It was explicitly stated that "both perspectives - to provide education for all students, and to tackle the exclusion of some students - are emphasized" (Kielblock, 2018, p. 11). As the researcher noted previously, even though Education for All and inclusive education are different concepts, Education for All is the foundation of inclusive education and it reflects the past and current status of the development of inclusive education across all countries.

2.2.2. Inclusive teaching strategies

One of the greatest challenges is the lack of usage of diverse, inclusive teaching strategies in schools to meet students' needs. As Ashman stressed, "provision of the most beneficial teaching and learning experiences" is the basis of inclusive education (Boyle et al., 2020, p. X). Inclusive teaching requires teachers to believe that "all children should learn together, wherever possible, regardless of any difficulties or differences they may have" (UNESCO, 1994, Art. 7) and recognize the differences of every student and embrace their diversity (UNESCO, 2020). A qualified inclusive teacher should value learner diversity, support all learners, work with others, and engage in professional development (European Agency for Special Needs and Inclusive Education, 2012). Teacher Education for Inclusion (TE4I) project-a 3-year project at the European level-identified four essential core values and areas of competencies for all teachers to work in inclusive settings. One of the areas of competence is effective teaching approaches in heterogeneous classes (European Agency for Special Needs and Inclusive Education, 2012). Inclusive education challenges teachers to develop a large number of teaching strategies. According to the latest statistics, even though 95% of school-aged children (MOE, 2020) can go to local schools to receive education in China, their needs are well accommodated in inclusive settings remains questionable (Yang &

Zhang, 2018; Pang, 2017; Yu, 2016; Deng & Poon-McBrayer, 2012).

Inclusive teaching strategies play a critical role in inclusive practices by helping teachers cater for all students in an inclusive school. Certain teaching strategies have been identified as effective in meeting diverse students' needs. Davis et al. (2004) listed a series of teaching strategies and approaches for pupils with special educational needs. Winter and O' Raw (2010) summarized seven inclusive teaching strategies to enhance and support inclusive education: differentiated instruction, scaffolded instruction, cooperative learning, peer tutoring, direct instruction, co-teaching, and employment of various teaching styles. This study examines nine inclusive teaching strategies in classrooms to promote student learning in Chinese primary schools. See more details in Section 5 of this Chapter.

2.3. Keys to developing inclusive education

2.3.1. Teachers as key to the success of inclusive education

The importance of teachers for education for all is highlighted in the international policies on inclusive education. In the Framework for Action of the World Declaration on Education for All (UNESCO, 1990), the significant role of the teachers in providing quality basic education was noted:

> The preeminent role of teachers as well as of other educational personnel in providing quality basic education needs to be recognized and developed to optimize their contribution. This must entail measures to respect teachers' trade union rights and professional freedoms, and to improve their working conditions and status, notably in respect to their recruitment, initial and in-service training, remuneration and career development possibilities, as well as to allow teachers to fulfil their aspirations, social obligations, and ethical responsibilities (UNESCO,1990, p. 12).

In the Guidelines for Action at the National Level of Salamanca Statement for Action, the importance of teachers in implementing inclusive education was explicitly expressed: "Teachers, however, play a key role as the managers of the educational

process, supporting children through the use of available resources both within and outside of the classroom" (UNESCO, 1994, p. 24). Teachers were considered team members, with good partnerships with other professionals and parents to foster inclusive education (UNESCO, 1994).

2.3.2. Importance of teacher education on inclusive education

A very famous OECD report, "*Teachers matter*" (OECD, 2005), highlights the vital importance of quality teachers for their student learning. Many empirical studies concluded that students' achievement relies more on the teachers at the classroom level. For example, Hattie (2003) asserted that because 30% of the variance of students' achievement can be explained, teacher quality had the most significant effects on their students. Furthermore, Hattie (2009) found that teachers' "excellence in teaching" (p. 181) affected students' outcomes most. Hattie (2009) constructed a "model of successful teaching and learning". This model stressed the power of teachers, their proficiencies regarding decision-making, their engagement in establishing caring relationships with and amongst students, and their critical reflection of desirable teaching outcomes.

Teachers are of critical importance in any reform designed to improve inclusion. Therefore, UNESCO makes a checklist of teachers and the learning environment for inclusive education. For example, the country needs enough trained teachers with inclusive thinking. What's more, teachers need to constantly enhance their professional development to meet students' ongoing needs. Teacher attitude, learning environment, teaching method, and teacher cooperation with others are also very vital to give all students an equal chance to develop themselves. Teachers' ability to adapt curriculum is a prerequisite for successful inclusive education, dealing with student learning, emotional characteristics, and behavioral characteristics (Deng et al., 2016).

Inclusive education development requires future teachers to acquire the necessary competencies to effectively address the diversity of learners. However, a report from UNESCO Asia-Pacific Regional Bureau for Education (UNESCO Bangkok) (Forgacs,

2012) indicated that pre-service teacher education in many Asia countries could not meet this requirement. So, UNESCO (Kaplan & Lewis, 2013a, 2013b, 2013c, 2013d, 2013e) published *Promoting Inclusive Teacher Education: Advocacy Guides*, with the purpose of promoting more inclusive teacher education in specific contexts of Asia countries. These five advocacy guides are in five booklets: Introduction, Policy, Curriculum, Materials, and Methodology. Methodology means "the theory and practice of teaching and learning" (Kaplan & Lewis, 2013a, p. 3) and includes many specific teaching methods. Thus, inclusive teaching methodology refers to the theory and practice of teaching and learning in an inclusive environment. There are some specific approaches or methods with inclusive orientation, such as individualized/personalized instruction and learner-centered teaching. Inclusive education cannot be effectively implemented in the classroom without an inclusive teaching methodology. "When teaching methodology is inclusive in form and function, the practice of such methodology itself becomes a means of inclusive education advocacy and a reinforcement of the concepts and intended outcome of a quality learning experience for all" (Kaplan & Lewis, 2013e, p. 2). In this booklet *Promoting inclusive teacher education: Methodology*, they paid attention to teaching methods and skills which are flexible, learner-centered, and inclusive of diverse needs to support student teachers to develop formative assessment and resources in their specific contexts (Kaplan & Lewis, 2013e).

As Wilson et al. (2018) said, "although policy mandates inclusion, it is classroom teachers who determine its success" (p. 1). A series of studies related to teachers of inclusive education have shown that if regular teachers do not have the willingness, professional skills, and sufficient support to educate students with disabilities, children with disabilities will be separated even if they are placed in regular classrooms.

In the Framework for Action of Salamanca Statement, there is a separate chapter on "Recruitment and Training of Educational Personnel" to highlight the importance of teacher education and training for inclusive education. It stated: "Appropriate preparation of all educational personnel stands out as a key factor in promoting progress towards inclusive

schools" (UNESCO, 1994, p. 27). The Statement emphasized all student teachers should be trained to gain knowledge and skills of good teaching towards special educational needs, and in-service teacher training should be developed at the school level to respond to special educational needs.

Subsequent to the Dakar Framework for Action (UNESCO, 2000), it also stressed enhancing the status, morale, and profession of teachers for quality education in the schools. It stated in the Expanded Commentary on the Dakar Framework for Action:

> Teachers are essential players in promoting quality education, whether in schools or in more flexible community-based programmes; they are advocates for, and catalysts of, change. No education reform is likely to succeed without the active participation and ownership of teachers. Teachers at all levels of the education system should be respected and adequately remunerated; have access to training and ongoing professional development and support, including through open and distance learning; and be able to participate, locally and nationally, in decisions affecting their professional lives and teaching environments. (UNESCO, 2000, p. 20)

Furthermore, it is pointed out that teachers must be able to understand diversity in student learning and learn to adapt the learning environment to diverse needs (Kielblock, 2018).

In addition, the Incheon declaration (UNESCO, 2015) reaffirmed the role of teachers in inclusion and equity in education. It noted:

> Teachers are the key to achieving all of the Education 2030 agenda…As teachers are a fundamental condition for guaranteeing quality education, teachers and educators should be empowered, adequately recruited and remunerated, motivated, professionally qualified, and supported within well-resourced, efficient and effectively governed systems. (UNESCO, 2015, p. 21)

In Europe, there is also an important project on teacher education for inclusion. The

project started in 2009 and ended with a final project conference in 2012. "What kind of teachers do we need for an inclusive society in a 21st-century school?" 26 Agency member countries participated in project activities. Finally, the Profile of Inclusive Teacher (European Agency for Special Needs and Inclusive Education (EASNIE), 2012) was generated to identify the essential skills, knowledge and understanding, attitudes, and values needed by teachers who want to work in an inclusive class. As shown in Table 5, the Profile has been developed around four core values and areas of competence which are made up of three elements: attitudes, knowledge, and skills.

Table 5 Core values and competence areas of inclusive teachers

Core values	Definition	Competence areas
Valuing learner diversity	Learning difference is considered as resource and an asset to education.	Conceptions of inclusive education; The teachers' view of learner difference
Supporting all learners	Teachers have high expectations for all learners' achievements.	Promoting the academic, practical, social and emotional learning of all learners; Effective teaching approaches in heterogeneous classes
Working with others	Collaboration and teamwork are essential approaches for all teachers.	Working with parents and families; Working with a range of other educational professionals
Continuing personal professional development	Teaching is a learning activity and teachers take responsibility for their own lifelong learning.	Teachers are reflective practitioners; Initial teacher education as a foundation for ongoing professional learning and development

Source: EASNIE, 2012, p. 7.

As early as the end of the last century in China, the law stipulated that special education courses should be added to the courses of student teachers in universities or colleges.

In accordance with the development of regular classes for teachers, Article 41 of the "*Regulations on the Education of People with Disabilities*" promulgated in 1994 explicitly states that: Normal colleges and universities should set up compulsory or elective courses for special education in a planned way, for the purpose of promoting teacher students to obtain the necessary basic knowledge and skills of special education to meet the educational needs of disabled students in regular classes. Law on the Protection of Persons with Disabilities was adopted in 1990 and revised in 2008. It stated,

> The State shall systematically set up various forms of normal colleges and disciplines for special education at various levels. Special education classes attached to ordinary normal schools should be established to train and develop teachers for special education. Ordinary normal schools shall offer curricula or lectures on special education so that teachers in ordinary education may have some necessary knowledge about special education. (SC, 1990, Art. 28)

In 1999, the Ministry of Education published the Syllabus of Teaching for Learning in the Regular classroom in Normal Colleges and Universities. According to the Syllabus requirement, Hua (2000) wrote the book *Teaching for Learning in the Regular classroom*, which was perceived as the first book to educate teachers on how to cater for students with special educational needs in the regular classroom (Li, 2006). Since then, Professor Hua, cooperating with other researchers on special or inclusive education in China, has written two more books on children with special educational needs for teacher training in Learning in the Regular Classroom. One is *Psychology of Children with Special Educational Needs and How to Teach Them* (Hua, 2004). He pointed out that teachers need to have the ability to consider students' differences in the classroom, create a learning environment with equal participation, evaluate children with special educational needs, communicate with children with special educational needs, and build a good teacher-student relationship (Hua, 2004). The other is *A Training Book for Teaching in Learning in the Regular Classroom* (Hua, 2006). He asserted that teachers in regular classrooms should have basic skills. For example, teach

according to students' aptitude, develop their potential and ask for resources and support for disabled children.

Teacher training for inclusive education has been given much-increased attention these recent decades (Su et al., 2018). Chinese government asks in-service teachers in the regular classroom to do continuous training on special and inclusive education year by year. In 2008, a questionnaire on primary school teachers reported that most of the teachers (69.1%) had never received any training, and only 1.8% of respondents received some periodical training (intensive training courses during summer or winter holidays) (Deng, 2008). In Beijing, 61.7% of teachers were found to have no teacher training on inclusive and special education for in-service teachers in primary and secondary schools (Yan et al., 2017). According to the latest government official document, the "National Training Plan" and various local teacher training projects are vigorously carried out the training of teachers in regular classes, which incorporate the knowledge of special education into teacher continuing education and related training to improve the special education professional ability of all teachers (MOE, 2020b). There is an example of teacher training for inclusive teachers, as shown in Table 6.

Table 6 One-week short-term training program on inclusive education for regular teachers

Date	Training content	Trainer
1st Day	Visit inclusive schools in the C City	/
	School-wide inclusive education	
2ⁿᵈ Day	The reform of American inclusive schools and its	/
	Enlightenment	
3ʳᵈ Day	Student behavior management	/
	Inclusive educational concepts and future development trends	
4ᵗʰ Day	Inclusive curriculum and instructional design	/
	Teachers professional training in inclusive schools	
5ᵗʰ Day	How to formulate an IEP for students with special	/
	educational needs	

	Teacher emotion and stress management	
6th Day	Identification and prevention of students' psychological problems	/
	Personality and personal development	
7th Day	Visit inclusive schools in the C City	/

Source：A Chinese training program on inclusive education.

As it showed in the table above, the content of this short-term teacher training for inclusion included theoretical knowledge, skills, and practices on inclusion. Theoretical knowledge involves concepts of inclusive education, trends, and challenges to implementing inclusive education. Special skills to accommodate students with special educational needs contained student behavior management, inclusive curriculum, instructional design, IEP, and identification and prevention of students' psychological problems. Inclusive practices mainly visit inclusive schools to observe their classrooms or participate in their activities.

Although dramatic and important progress has been made in Chinese inclusive education, there are many difficult challenges to improving services for students with special educational needs in regular schools (Su et al., 2018). The shortage of special and inclusive education for pre-service and in-service teachers made it difficult to reach effective instruction in the inclusive classroom (Deng & Poon-McBrayer, 2012). In addition, Zeng (2017) stated that most teachers can select teaching strategies actively to help special students learn, but they tend to adopt easier and more convenient strategies with an emphasis on emotions rather than time-consuming strategies with special skills. That is, teachers in the regular classroom need more professional, inclusive education training on professional support, classroom management, and inclusive teaching strategies.

3. Inclusive education in China

3.1. Introduction

As the largest developing country, China set up the Compulsory Education Law of the People's Republic of China to guarantee the fundamental rights for every school-age child to receive nine-year compulsory education, also the rights of children, the disabled, and vulnerable people (NPC,1986). The largest group of people with disabilities is in China, with a population of 85 million physical disabilities in 2012, with 168 million estimated by the end of 2050 (CDPF, 2012). To increase the enrollment rate for school-aged disabled children to receive compulsory education, China implemented a practical model of inclusive education--- the LRC (Learning in the Regular School) initiative in the 1980s. Deng & Zhu argued that LRC is a pragmatic model of inclusion that has evolved out of a compromise of the Western concept of inclusion and practical considerations related to Chinese social and educational conditions (Deng & Zhu, 2007). In 1994, the Chinese government document Measures of Implementing Learning in Regular Classrooms for Children and Adolescents with Disabilities-the only policy specified the regulation of the LRC initiative- was published (MOE, 1994). It stated the objects were children with visual impairment, hearing impairment, and intellectual disability. However, now the types of disabilities usually include four more types: physical disabilities, speech and language disabilities, mental disorders, and multiple disabilities (Su et al., 2018). So, this study is carried out in regular schools where there are some students with these special educational needs.

The National People's Congress ratified the Convention on the Right of Persons with Disabilities in 2008, with a significant commitment to inclusion for all. Besides, the Regulation on the Education of People with Disabilities, revised in 2017, claims that "promote inclusive education for people with disabilities and encourage disabled students to study in regular schools" (MOE, 2017, Art. 3). In the 13th Five-Year Plan for Economic and Social Development of the People's Republic of China, the

government will promote the "FIRE" mode of educational equity which includes four elements. The "I" of the "FIRE" mode means the "Inclusion" element (Xu, 2015). Owing to the implementation of the Special Education Development Plan First Session (2014-2016), the rate of visual, hearing, and intellectually disabled children receiving compulsory education has been more than 90% by 2016 (MOE, 2017a). What's more, it stated ambitiously that the rate of compulsory education for children with disabilities should reach up to 95% in Special Education Development Plan Second Session (2017-2020) (MOE, 2017b).

According to the new statistics of the Ministry of Education in 2020, there were 2244 special schools nationwide, totally enrolling 880, 800 students with special educational needs (MOE, 2020a). Among them, there are 560,025 students enrolled in ordinary primary schools, junior high schools, and classes attached to primary and junior high schools (MOE, 2020a). In other words, LRC students accounted for over half (63.58%) of the total enrollment number. There were 192,598 Followers in Primary Schools (*Suibanjiudusheng*) and 3,023 disabled pupils in Classes Attached to Primary Schools (*Xiaoxuefushetejiaoban*) in 2016 (MOE, 2016)[2].

Figure 3 The rate of disabled children aged 6-14 receiving compulsory education from 2007 to 2020

---
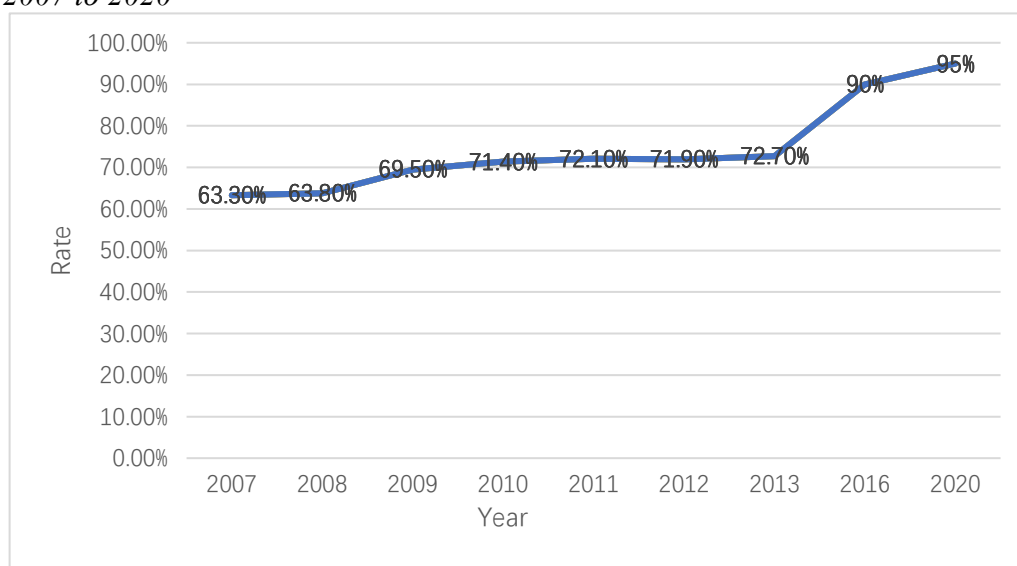
[2]Suibanjiudusheng and Xiaoxuefushetejiaoban are two parts of LRC policy focus.

Source: CDPF, 2014; MOE, 2016, 2020.

The rate of disabled children aged 6-14 receiving compulsory education from 2007 to 2020[3] is as follows in Figure 3, which shows the trend of more disabled children having access to basic education since 2013.

In particular, the enrollment rate of children with disabilities in compulsory education has reached over 95 percent. Actually, every child should attend school and receive compulsory education according to the Compulsory Education Law of the People's Republic of China (NPC, 1986).

Figure 4 Enrolment and percentage of enrollment of children with disabilities in regular schools from 2001 to 2018
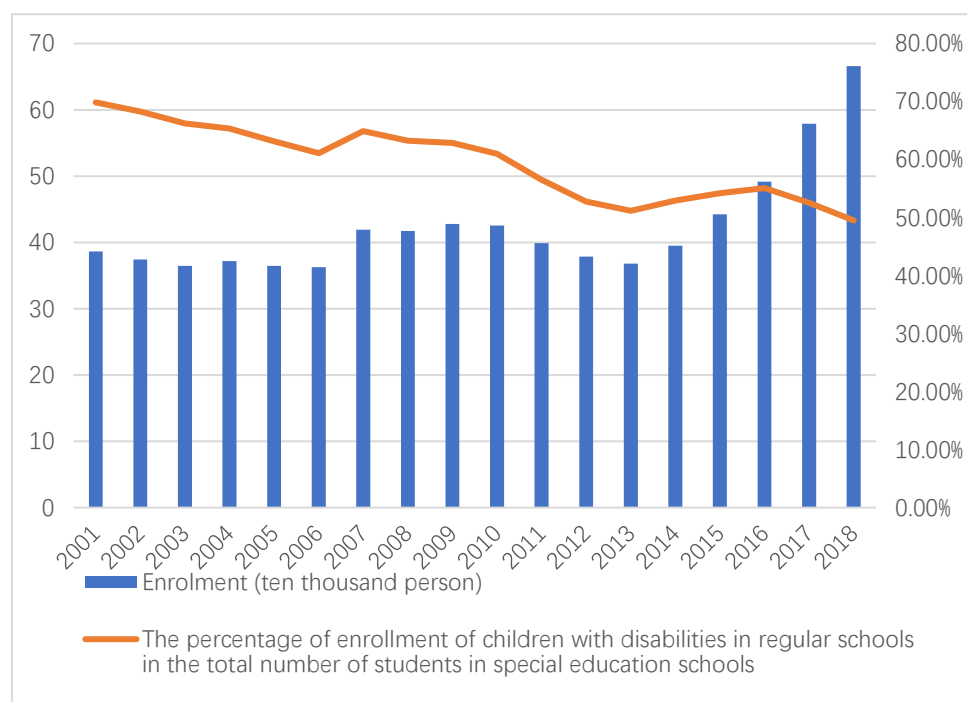
Source: MOE, 2019.

There is a long way to go to ensure inclusive and quality education for every child, including disabled children (CECI, 2017; CDPF,2016**).** As shown in Figure 4, the percentage of enrollment of children with disabilities in regular schools is going down from 2001 to 2018(MOE, 2001-2018). Although policies play an important role in

---

[3] The data in 2014, 2015, 2017, 2018 and 2019 is not found.

inclusive education at the international and national levels, inclusive education doesn't become a reality until an inclusive school has practical actions, especially these teachers implement any teaching strategies for students' diverse needs. As Engelbrecht et al. (2017) say,

> although developments at policy level are important, ultimately inclusive education comes down to changing the nature and characteristics of schoolwide systems, as well as the classroom practices of teachers in general-education classrooms, so that they accept learners with diverse educational needs (p. 684).

Although a large number of school-age children are included in the regular classroom in China, whether their needs are well accommodated in inclusive settings remains questionable (Pang, 2018). Tan and Ma (2012) conducted an investigation on the professional development needs of regular teachers in Shanghai and found that two-thirds of participants had not taken special education courses and what teachers needed most were the theories of special education and inclusive education and teaching strategies for learning of students with special educational needs.

After nearly three decades have gone, the LRC policy has achieved great success (Hua, 2005). The China government reported that roughly half of the students with special educational needs entered regular schools (MOE, 2020a). However, some barriers or problems have to be removed or solved, such as the backwardness of the educational concept, the lack of quality teachers, the big class sizes, and the imperfect support system, which are apparent (Hua, 2005). One of the most prominent problems is that there are no adequate teachers with high quality to promote inclusive education in China (Hua, 2005). Despite a large number of works of literature on inclusive education, there is still a lack of research resources on how these theories and principles underlying inclusion translates into effective teaching practices (Winter & O' Raw, 2010). Therefore, how teachers can be well-prepared and well-trained for students with special educational needs is of growing research interest.

3.2. Inclusive education policies in China

It is acknowledged that inclusive education thinking is essential for the implementation, but often not reflected in national laws and policies. For instance, in the worldwide, "general or inclusive education laws under education ministry responsibility focus on people with disabilities in 79% of countries, linguistic minorities in 60%, gender equality in 50% and ethnic and indigenous groups in 49%" (UNESCO, 2020a, p. 28).

Legislation and law are crucial to educational reform (Fullan, 2007). Absolutely, government policies are also significant to inclusive education development. Since1980s, the Chinese government enacted many regulations and policies regarding inclusive education. Here, the researcher presented four important legislation and policies according to publication year: Constitution of the People's Republic of China, The Law on Nine-Year Compulsory Education, the Law of the People's Republic of China on the Protection of Persons with Disabilities, and Regulations on the Education of People with Disabilities. As the Constitution of the People's Republic of China stated, "all citizens have the right to receive education" (NPC,1982, Art. 46). The Constitution provides all Chinese people the fundamental safeguard for education rights, including people with disabilities. The Law on Nine-Year Compulsory Education is based on Chinese inclusive education development (Tan, 2014). Article 5 requires that all aged-six children should receive compulsory education, including children with special educational needs. Children and adolescents who are blind, deaf-mute, or retarded, can receive compulsory education in special schools or classes. The Law of the People's Republic of China on the Protection of Persons with Disabilities is the most important law to protect the right and obligations of children with disabilities from all aspects. Article 28 asks the government to establish more normal colleges and disciplines for special education. Furthermore, normal universities or colleges should provide teacher education and training in special education for teachers in general education. Regulations on the Education of People with Disabilities was the first time to give a clear definition of inclusive education in government regulations. "Inclusive education refers to the maximum integration of the education of students with disabilities into general education" (MOE, 2017, Art. 58). All children of school age with special

educational needs can enroll in special or regular schools in accordance with their types of disabilities and learning capacities. And it stated that regular teachers should receive training on special and inclusive education. More detailed articles are presented in Table 7.

Table 7 *Important legislation and law for inclusive education in China*

Year	Law	Content
1982	Constitution of the People's Republic of China	Article 33 All citizens are equal before the law.
		Article 46 Citizens of the Republic of China shall have the right and obligation to receive education.
1986	The Law on Nine-Year Compulsory Education	Article 2 The state shall institute a system of nine-year compulsory education.
		Article 4 The state, the community, schools, and families shall, in accordance with the law, safeguard the right to compulsory education of school-age children and adolescents.
		Article 5 All children who have reached the age of six, regardless of gender, ethnicity, or race, shall enroll in school and receive compulsory education for the prescribed number of years.
		Article 9 Local people's governments at and above the county level shall establish primary schools and junior secondary schools at such locations that children and adolescents can attend schools near their homes.
		Local people's governments at and above the county level shall establish special schools (or classes) for children and adolescents who are blind, deaf-mute, or retarded.
1990, revised in 2018	Law of the People's Republic of China on the Protection of Persons with Disabilities	Article 21 The State shall guarantee the right of persons with disabilities to education. People's governments at various levels shall take the education of persons with disabilities as a component of the state educational program, include it in their overall planning, and strengthen leadership and guidance, so as to create conditions for persons with disabilities to receive education.
		Article 22 Education for persons with disabilities shall be developed in terms of both the expansion of

access and upgrading of the levels, with more emphasis on the former. Priority shall be given to guaranteeing compulsory education and developing vocational and technical education, while efforts shall be made to carry out preschool education and gradually develop education at and above the senior high school level.

Article 25 Ordinary educational institutions shall be open to students with disabilities who are able to receive ordinary education and offer them reasonable accommodation and help.

1994, revised in 2017	Regulations on the Education of People with Disabilities	Article 2 The state guarantees the right of persons with disabilities to equal access to education and prohibits any educational discrimination based on disability. Article 3 The education of the disabled shall be a component of the state's educational cause. For the education of the disabled, the quality of education shall be improved, and **inclusive education** shall be actively promoted. Regular and special education methods shall be adopted in accordance with the types of disabilities and learning capacities of the disabled, and priority shall be given to the adoption of the regular education method. Article 22 Regular schools enrolling students with disabilities should reasonably include students with disabilities in classes; if there are many students with disabilities, special education classes may be set up. Regular schools enrolling students with disabilities shall arrange for special education teachers or experienced teachers to undertake the education and teaching work for students studying in the regular classrooms or special education classes, and appropriately reduce the number of students in the class, so as to accommodate students with disabilities for their study and life after enrollment. Guarantee the equal participation of students with disabilities in education and teaching and various activities organized by the

school.

Article 26 The Special Education Resource Center provides training for teachers in the regular classrooms.

Article 41 Teachers engaged in the education of the disabled should love the education of the disabled, have the humanitarian spirit of socialism, respect and care for the disabled students, and obtain professional knowledge and skills in the education of the disabled.

Source: Adapted from NPC, 1982, 1986, 1990; SC, 2017.

Moreover, some laws stipulate teacher education for inclusive and special education. For example,

> The State shall systematically set up various forms of normal colleges and disciplines for special education at various levels. Special education classes attached to regular normal universities or colleges should be established to train and develop teachers for special education. Regular normal schools shall offer curricula or lectures on special education so that teachers in general education may have some necessary knowledge about special education. (NPC, 2018, Art. 28)

The Regulations on the Education of People with Disabilities stated:

> Teachers majors in normal colleges and comprehensive colleges should set up special education courses to enable students to gain the necessary basic knowledge and skills of special education to meet the educational and teaching needs of disabled students studying in the regular classrooms (SC, Art. 44).

> A certain percentage of special education and related knowledge should be added to the training of regular teachers so as to improve their special education abilities (SC, Art. 45).

Teacher education is a priority for developing inclusive education. More policies will be introduced in Section 3.2.

Qu (2019) summarized more government documents in terms of inclusive education in China in Table 8. In 1991, Programmer for Disabled Persons, during the Eighth Five-Year Plan, was established to boost special and inclusive education. In 2014, Special Education Promotion Plan 2014-2016 set up the purpose of developing special and inclusive education: "Actively promote inclusive education to enable every child with disabilities to receive a suitable education and prohibit any form of discrimination in education" (MOE, 2014, p. 2). By 2016, compulsory education for children and adolescents with disabilities is basically universal in the whole country, and the compulsory education enrollment rate of children and adolescents with visual, hearing,

and intellectual disabilities reaches more than 90%, and the opportunities for education of persons with other types of disabilities have been significantly increased (MOE, 2014). In addition, some special guidance for promoting special and inclusive education was put forward. Inclusive education is considered as the promotion of equitable and high-quality education for all children with disabilities.

Table 8 Government documents regarding inclusive education in China

Year	Government Document	Implication
1991	Programmer for Disabled Persons during the Eighth Five-Year Plan	A framework for developing special and inclusive education was established. Both special and mainstream schools were promoted.
2014	Special Education Promotion Plan 2014-2016	Special guidance and targets for promoting special and inclusive education were updated.
2017	Special Education Promotion Plan 2017-2020	The framework for developing special and inclusive education was updated. Inclusion became a priority.
2019	Chinese Education Modernization 2035	"Inclusion" entered mainstream education discourse as a basic idea of educational development; suitable education for children with disabilities was highlighted as the main aim of general educational development.
2021	The 14th Five-Year Promotion Action Plan on Special Education	"To promote inclusive education" is regarded as an important strategy to comprehensively improve the quality of special education.

Source: Adapted from Qu, 2019, p. 59; SC, 2021.

In order to consolidate the achievement of the first Promotion Plan, Second Promotion Plan 2017-2020 was released in 2017. The plan proposed the basic principles to develop special and inclusive education: "Comprehensively promote inclusive education" and

"respect differences and pluralistic development" (MOE, 2017b, p. 2). It aimed at the enrollment rate of school-age children with disabilities reaching 95% by 2020 (MOE, 2017b). Priority is given to inclusive education and providing educational placement in regular schools for school-age children and adolescents with disabilities to receive compulsory education (MOE, 2017b).

More recently, China will promote the development and enhancement of special and inclusive education during the 14th Five-Year Plan by integration with general education, vocational education, medical rehabilitation, and information technology. The plan aims to initially establish a high-quality special education system by 2025, with the enrollment rate of school-age children with disabilities in compulsory education reaching 97% (MOE, 2021). More specific principles were put forward to achieve ambitious goals:

a) Release more policies, and increase funds and projects for special education;

b) In response to the needs of children and adolescents with disabilities of different categories, degrees, and ages, scientific assessment, reasonable placement, and categorization of education are carried out;

c) Effectively guarantee the right of children and adolescents with disabilities to receive education on an equal basis so that educate them without discrimination;

d) Respect the physical and mental development characteristics and individual differences of children and adolescents with disabilities so that they can be taught according to their abilities and achieve appropriate development, and that children and adolescents with and without disabilities can understand and respect each other, grow and progress together in an inclusive environment. (MOE, 2021, p. 1-2)

The 14th Five-Year Promotion Action Plan on Special Education set new goals for the development of inclusive education. Though some studies have indicated that regular teachers in China had a limitation to the acceptance of and willingness to cater for the individual differences of children (Xu & Cooper, 2022), individual differences and

characteristics should be respected, and all children should learn together in an inclusive environment.

3.3. Teacher education policies related to inclusive education in China

Teachers play an indispensable role in the education system (Darling-Hammond & Lieberman, 2012; Darling-Hammond et al., 2017). Darling-Hammond (2021, p. 297) concluded that good teaching is "reflected in standard for teacher education and teaching; the selection criteria for entering preparation and practice; and requirements for training". The research argued that if teachers received more training on how to deal with diversity and possible problems, they would teach more effectively (Darling-Hammond, 2021; TALIS, 2013).

Teacher education policies are a series of government documents to guide teacher preparation, induction, training, and professional development. The objectives are to help the teachers develop correct educational ideals and professional ethics, acquire knowledge and skills of teaching and have teaching competencies. This section will introduce three significant teacher education policies related to inclusive education in China. One is the National Teacher Education Curriculum Standards 2011(Trail), which includes a series of standards on Chinese teacher education. Another is Primary School Teacher Professional Standards 2012 (Trial). The last one is Special Education Teacher Professional Standards 2015 (Trial).

3.3.1. National Teacher Education Curriculum Standards 2011(Trail)

The National Teacher Education Curriculum Standards 2011(Trail) first gave a definition of a teacher education curriculum.

> In a broad sense, the teacher education curriculum includes basic public courses, subject professional courses and educational courses offered by teacher education institutions for the cultivation and training of kindergarten, primary and secondary school teachers (MOE, 2011a, p. 1).

These curriculum standards refer specifically to educational courses, reflect the basic

requirements of the state for teacher education institutions to set up teacher education courses, and are an important basis for formulating teacher education curriculum plans, developing teaching materials and curriculum resources, conducting teaching and evaluation, and identifying teacher qualifications. The national curriculum standards consist of three parts: basic principles, curriculum objectives, and arrangement and implementation suggestions. Three basic principles are (MOE, 2011a):

a) Child-centred

Teacher education courses should guide future teachers to establish correct views on children, students, teachers, and education, acquire the necessary educational knowledge and abilities, participate in educational practice, and enrich professional experience. Teacher education courses guide future teachers to teach according to their aptitude and care and help each child in primary and secondary school gradually establish a correct outlook on the world, life, and values to cultivate a sense of social responsibility, innovative spirit, and practical ability.

b) Practice-orientation

Teachers are reflective practitioners who develop professionally in the process of researching their own experiences and improving educational and teaching practices. Teacher education curriculum should strengthen practical awareness, pay attention to practical problems, and reflect the new requirements of education reform and development for teachers. The teacher education curriculum should guide future teachers to participate in basic education reform, actively construct educational knowledge, and develop practical ability; guide future teachers to discover and solve practical problems, innovate teaching models, and form teaching styles and practical wisdom.

c) A Lifelong learner

Teachers are lifelong learners who achieve professional development in the process of continuous learning and continuous improvement of their own quality. Teacher

education courses should realize the integration of pre-service education and in-service education, enhance adaptability and openness, and reflect the new requirements of learning society for individuals. The teacher education curriculum should guide future teachers to establish correct professional ideals, obtain necessary knowledge and skills, and develop the habit of independent thinking and self-learning; guide teachers to deepen professional understanding, update knowledge structure, and form lifelong learning ability and the ability to cope with challenges.

Specifically, the Curriculum Standards include three standards for preschool teachers, primary teachers, and secondary teachers respectively. Here, the National Teacher Education Curriculum standards 2011 (Trail) for primary teachers will be mainly introduced because this research focuses on primary teachers. The Standards consist of curriculum objectives and arrangement.

Curriculum objectives

The pre-service teacher education curriculum should guide future teachers to understand the characteristics and differences of pupils' growth, learn to create a supportive and challenging learning environment, and satisfy their desire for performance and curiosity; understand the life experience of primary school students and the significance of on-site resources, learn to design and organize appropriate activities, guide and help them learn independently, cooperatively and inquiringly, and form good study habits; understand the value and uniqueness of communication on the pupils' development, and learn to organize various group and partner activities, so that they can have happy growth in meaningful school life.

Table 9 indicates the specific objectives and basic requirements of teacher education curriculum in relation to three areas: educational belief and responsibilities, educational knowledge and abilities, and educational practices and experiences.

Table 9 Curriculum objectives and basic requirements of National Teacher Education Curriculum Standards 2011 (Trail) for primary teachers

Areas	Objectives	Basic Requirement
1. Educational beliefs and responsibilities	1.1 Have a correct view of children and corresponding behavior	1.1.1 Understand the unique status and value of primary school in life development and understand the significance of lively primary school life to the pupils' development.
		1.1.2 Respect students' rights to learn and develop and protect students' interest in learning and self-confidence.
		1.1.3 Respect the individual differences of students, believe that students have the potential for development, and be willing to create conditions and opportunities for students to develop.
	1.2 Have a correct view of the teacher and corresponding behavior	1.2.1 Understand that teachers are the facilitators of student learning and believe that the significance of teachers' work is to create conditions to help students grow up happily.
		1.2.2 Understand the professional characteristics and professional requirements of primary school teachers, consciously improve their scientific and humanistic qualities, and form a willingness to lifelong learn.
		1.2.3 Understand the rights and responsibilities of teachers and abide by the teachers' professional ethics.
	1.3 Have a correct view of education and corresponding behavior	1.3.1 Understand the importance of education to students' growth, teachers' professional development, and social progress, believe that education is full of the joy of creation, and be willing to engage in primary education.

		1.3.2 Understand the history, current situation, and development trend of school education, agree with the value of quality education, and understand and participate in education reform.
		1.3.3 Form a correct view of education quality, and conduct professional thinking and judgment on phenomena related to school education.
2. Educational knowledge and abilities	2.1 Have the knowledge and ability to understand students	2.1.1 Understand the main theories of child development and the latest child research.
		2.1.2 Understand the universal laws and influencing factors of children's physical and mental development, and be familiar with the age characteristics and pupils' different development.
		2.1.3 Understand the characteristics and influencing factors of pupils' cognitive development and learning styles, and be familiar with the process of primary school students building knowledge and acquiring skills.
		2.1.4 Understand the process of formation of primary school students' morality and behavioral habits, understand the characteristics of primary school students' communication, and understand the impact of peer interaction on the pupils' development.
		2.1.5 Obtain the methods of observation, conversation, listening, and analysis of works, and understand the needs of pupils' learning and development.
		2.1.6 Know about domestic education policies and regulations, be familiar with the content of children's rights, and the ways to safeguard children's legitimate rights.

	2.2 Have the knowledge and abilities to teach students	2.2.1 Understand the training objectives of primary education, be familiar with the curriculum standards of at least two subjects, and learn to set teaching objectives or activity objectives according to the curriculum standards.
		2.2.2 Be familiar with the teaching contents and methods of at least two subjects, learn to organize teaching activities in accordance with the pupils' life experience, and transform the teaching content into meaningful learning activities for primary school students.
		2.2.3 Understand the value of subject integration in primary education, know about various curriculum resources related to the learning content of primary school students, learn to design comprehensive theme activities, and create interdisciplinary learning opportunities.
		2.2.4 Understand the knowledge of classroom organization and management, learn to create a supportive and challenging learning environment, and stimulate students' interest in learning.
		2.2.5 Understand the theory and technology of classroom evaluation, learn to improve teaching, and promote student learning through evaluation.
		2.2.6 Understand the knowledge of curriculum development, learn to develop school-based curriculum, and design, implement and guide simple extracurricular and after-school activities.
		2.2.7 Understand the basic methods of team management, learn to guide primary school

		students to manage themselves, and form collective ideas.
		2.2.8 Understand the basic knowledge of primary school students' mental health education and learn to diagnose and solve common learning problems and behavior problems of primary school students.
		2.2.9 Obtain the necessary language skills, communication, and cooperation skills for teachers and the skills to use modern educational technology.
	2.3 Have the knowledge and abilities to develop oneself	2.3.1 Understand the core content of teachers' professional quality and clarify the focus of their own professional development.
		2.3.2 Understand the stages and approaches of teachers' professional development, be familiar with the general methods of teachers' professional development planning, and learn to understand and share the successful experiences of excellent teachers.
		2.3.3 Understand the influencing factors of teachers' professional development and learn to take various opportunities mainly based on curriculum learning to accumulate development experience.
3. Educational practices and experiences	3.1 Have experience in observing educational practice	3.1.1 Combined with the study of relevant courses, observe classroom teaching in primary schools and understand the norms and processes of classroom teaching.
		3.1.2 Enter the classroom, understand the situation of primary school students' group activities, the content and requirements of class management and team activities, and gain the experience of directly interacting with primary school students.
		3.1.3 Close contact with primary schools, understand the education and management

		practices of primary schools and gain a perceptual knowledge of the work content and operation process of primary schools.
	3.2 Have experience in participating in educational practice	3.2.1 Under the guidance, design and implement teaching plans according to the pupils' character and teaching objectives and experience teaching activities of 1-2 courses.
		3.2.2 Under the guidance, participate in guided learning, classroom management and organize activities, and gain experience in connecting with families and communities.
		3.2.3 Participate in various teaching and research activities and have the opportunity to have direct dialogue or communicate with other teachers.
	3.3 Have experience in education research	3.3.1 Accumulate what has been learned and thought in the process of daily study and practice, and form problem awareness and problem-solving ability.
		3.3.2 Understand the general approach to studying educational practices and experience the process of developing plans, carrying out activities, completing reports, and sharing results.
		3.3.3 Participate in various scientific research activities to obtain scientific research experiences from students.

Source: MOE, 2011a.

The national teacher education curriculum standards explicitly describe that the training courses should help teachers to develop a correct view of children. Teachers should "respect the individual differences of students, believe that students have the potential for development, and be willing to create conditions and opportunities for students to develop" (MOE, 2011a). These educational beliefs are consistent with inclusive values. While this national teacher education curriculum was released ten years ago, a number of teachers don't have these education beliefs for students with special educational needs.

In the area of educational knowledge and abilities, there are also some similar requirements for a qualified inclusive teacher. For example, teachers should "be familiar with the age characteristics and pupils' different development", and "content of children's rights and the ways to safeguard children's legitimate rights" (MOE, 2011a). However, many teachers in primary and secondary schools don't obtain this educational knowledge, especially young teachers.

In fact, these practices and experiences in the last area that involve "design and implement teaching plans according to the pupils' character and teaching objectives", and "gain experience in connecting with families and communities" (MOE, 2011a) also promote inclusive education in primary schools.

Curriculum arrangement

The next part specifies the curriculum arrangements, including learning areas, suggested modules and training models, and academic credits. Learning areas contain children's learning and development, basic primary education, subject guidance for primary schools, mental health, and moral education, teachers' professional ethics and development, and educational practices. Specific suggested modules are grouped across six learning areas. In terms of different academic years, the training models and academic credits are not the same.

Table 10 Curriculum arrangement of National Teacher Education Curriculum Standards 2011(Trail) for primary teachers

Learning Areas	Suggested Modules	Training Models and Academic Credits		
		Three-year College	Five-year College	Four-year Undergraduate (university)
1. Children's learning and development	Child development, pupils' cognition, learning, etc.	Compulsory-minimal 20 credits	Compulsory-minimal 26 credits	Compulsory-minimal 24 credits
2. Basic primary education	Philosophy of education; curriculum design and evaluation; effective teaching; classroom; school education development; classroom management; school organization and management; education policies and regulations, etc.			
3. Subject education and activity guidance for primary schools	Primary school curriculum standards and Textbook research; Teaching designing in primary school; interdisciplinary primary education; comprehensive practical activities in primary schools, etc.			
4. Mental health and moral education	Pupils' counseling, pupils' moral development, and moral education, etc.			
5. Teachers' professional	Teachers' professional ethics; education research			

ethics and development	methods; teachers' professional development; modern education technology; teacher language; writing skills, etc.			
6. Educational practice	Education probation; educational practice.	18 weeks	18 weeks	18 weeks
Teacher education curriculum lowest total credits (including elective course)		60 credits + 18 weeks	72 credits + 18 weeks	64 credits + 18 weeks

Explanation:

(1) One credit is equivalent to 18 hours of course study under the guidance of teachers, and the students pass the assessment.

(2) Learning areas are compulsory for every learner; the suggested modules are for teacher education institutions or learners to choose or combine, which can be compulsory or elective; the number of credits for each learning area or module is determined by teacher education institutions according to relevant regulations.

Source: MOE, 2011.

The Teacher Education Curriculum Standards provide detailed requirements to promote teachers' professional development. The big aim is to deepen teacher education reform, guide teacher education curriculum and instruction, and produce a high-quality teacher team.

The National Curriculum Standards also mentioned that teacher education institution should know about the differences in in-service teachers' learning and provide targeted in-service teacher education courses to meet the development needs of different learners. The in-service teacher education curriculum should reflect the new progress in related research fields, link educational practices and teachers' own practical experience to solve practical problems, and enhance the pertinence and effectiveness of the in-service teacher education curriculum.

3.2.2. Primary School Teacher Professional Standards (Trial)

In 2012, two teaching professional standards were issued by China's MOE: Primary school teacher professional standards (Trial) and Secondary school teacher professional standards (Trial) (MOE, 2012). These standards were built on four conceptual bases: student-orientation, teachers' ethics first, abilities as the most important, and life-long learning. The educational values in the teacher's professional standards also reflect inclusive values. For example, the educational value of student-orientation "embodies the core ideology of inclusion" (Carrington et al., 2015, p. 10). The meaning of this value is noted:

> Teachers should respect the rights and interests of pupils, take them as the main body of learning, and fully mobilize and give full play to pupils' initiative. In addition, teachers should abide by the characteristics of primary school students' physical and mental development and the laws of education and teaching, provide appropriate education to promote pupils to learn livelily and facilitate healthy and happy growth (MOE, 2012, p. 1).

Primary school teacher professional standards (Trial) were made up of three dimensions, 13 professional areas, and 60 basic requirements. The three dimensions of teaching are

professional knowledge, professional code of ethics, and professional skills. The details of professional areas and basic requirements are shown in Table 11.

The concept of inclusion is expressed by words such as respect, equity, and diversity, commonly used in the standards. Other phrases such as every student, all students, appropriate education, and holistic development are manifestations of inclusive education. The standard is the first time that children with special educational needs were recognized in Chinese national educational documents (Carrington et al., 2015). For instance, teachers should "respect the pupils' independent personality, safeguard their legitimate rights and interests, and treat everyone equally. No irony, sarcasm, discrimination against students, or corporal punishment or disguised corporal punishment to pupils" (Art. 7), and "trust students, respect individual differences and take the initiative to understand and meet the different needs that are beneficial to their physical and mental development" in the learning area of attitudes and behaviors toward pupils of the dimension of professional philosophy and morality.

Moreover, the learning area of attitudes and behaviors in education and teaching of the same dimension states: "Establish student-centered education and moral education first philosophy, combine the knowledge learning, ability development and moral cultivation of primary school students, and attach importance to the pupils' all-round development" (Art. 10), and "provide a suitable education for every primary school student" (Art. 11). In the learning area of students' development knowledge of the dimension professional knowledge, it states: "understand the pupils' learning characteristics with different ages, and gain the knowledge of good behavior habits of primary school students" (Art. 21). All of these terms or phases explicitly represent the recognition of inclusion.

Table 11 Primary School Teacher Professional Standards 2012 (Trial)

Dimensions	Professional Areas	Basic requirements
Professional philosophy and morality	Professional understanding and awareness	1. Implement the party and state education policies, and abide by education laws and regulations.
		2. Understand the meaning of primary education, love primary education, and have professional ideals and professionalism.
		3. Recognize the professionalism and uniqueness of primary school teachers, and pay attention to their own professional development.
		4. Have good professional ethics and act as a role model.
		5. Have a team spirit, active cooperation, and exchange.
	Attitudes and behaviors toward pupils	6. Care for primary school students, attach importance to pupils' physical and mental health and protect their safety in the first place.
		7. Respect the pupils' independent personalities, safeguard their legitimate rights and interests, and treat everyone equally. No irony, sarcasm, discrimination against students, corporal punishment, or disguised corporal punishment to pupils.
		8. Trust students, respect individual differences and take the initiative to understand and meet the different needs that are beneficial to their physical and mental development
		9. Actively create conditions for primary school students to have a happy school life.
	Attitudes and behaviors in education and teaching	10. Establish student-centered education and moral education first philosophy, combine the knowledge learning, ability development, and moral cultivation of primary school students, and attach importance to the pupils' holistic development.

		11. Respect the laws of education and the laws of pupils' physical and mental development, and provide an appropriate education for every primary school student.
		12. Guide pupils to experience the fun of learning, protect pupils' thirst for knowledge and curiosity, and cultivate pupils' widespread interests, hands-on ability, and spirit of inquiry.
		13. Guide primary school students to learn how to learn and develop good study habits.
		14. Respect and play the educational and guiding role of the Young Pioneers organization.
	Personal accomplishments and behavior	15. Caring, responsible, patient and careful.
		16. Optimistic, enthusiastic and cheerful, with affinity.
		17. Be good at self-regulating emotions and maintaining a peaceful mind.
		18. Be diligent in learning and keep making progress.
		19. The dress is neat and decent, the language is standardized and healthy, and polite manners.
Professional knowledge	Knowledge of students' development	20. Lean on the relevant laws, regulations, and policies on the survival, development, and protection of primary school students.
		21. Understand the physical and mental development characteristics and laws of primary school students with different ages or special educational needs, and obtain strategies and methods to protect and promote the pupil's physical and mental health.
		22. Understand the pupils' learning characteristics with different ages, and gain the knowledge of good behavior habits of primary school students.
		23. Understand the psychological characteristics of primary school students at the transition stage between kindergarten and primary school, and obtain the methods to help primary school students

	make a smooth transition.	
	24. Understand the knowledge and methods of adolescent and sexual health education for primary school students.	
	25. Understand the safety knowledge of primary school students, and obtain the prevention and response methods for various violations and injuries.	
Subject knowledge	26. Adapt to the requirements of comprehensive teaching in primary schools and understand multidisciplinary knowledge.	
	27. Gain the knowledge system, basic ideas, and methods of the subjects taught.	
	28. Understand the connection between the taught subject and social practice and the activities of the Young Pioneers, and understand the connection with other subjects.	
Knowledge in education and teaching	29. Grasp the basic theory of primary education and teaching.	
	30. To obtain the characteristics and laws of primary school students' moral development.	
	31. Grasp the cognitive laws of primary school students of different ages and the basic principles and methods of educational psychology.	
	32. Gain the curriculum standards and teaching knowledge of the subjects taught.	
Liberal knowledge	33. Have corresponding knowledge of natural sciences and humanities, and social sciences.	
	34. Understand the basic situation of Chinese education.	
	35. Have the corresponding knowledge of art appreciation and performance.	
	36. Have the knowledge of information technology to adapt to the modernization of educational content, teaching methods, and approaches.	

	Education and instructional design	37. Reasonably make individual and collective education and teaching programs for primary school students.
		38. Make rational use of teaching resources and scientific preparation of teaching plans.
		39. Reasonably design various class and Pioneer activities.
Professional skills	Organization and implement	40. Build a good teacher-student relationship and help students establish a good peer relationship.
		41. Create an appropriate teaching situation and adjust teaching activities in time according to the pupils' responses.
		42. Mobilize student learning enthusiasm, and stimulate their interest in learning by combining their prior knowledge and experience.
		43. Primary school students play subjectivity and flexibly use teaching methods such as heuristics, inquiry, discussion, and participation.
		44. Take advantage of the educational functions of the Young Pioneers in the organization, collective activities, and information dissemination.
		45. Apply modern educational technology to teaching.
		46. Properly use oral language, body language, and written language, use Mandarin for teaching, and standardize the writing of pen, chalk, and calligraphy.
		47. Properly respond to emergencies.
		48. Identify the behaviors and ideological trends of primary school students, and use scientific methods to prevent and effectively correct destructive behaviors.
	Incentives and	49. Observing and judging the daily performance of primary school students, discovering and

Evaluation		appreciating their little progress.
		50. Flexible use of multiple evaluation methods to give pupils appropriate evaluation and guidance
		51. Actively guide students' self-evaluation.
		52. Use the evaluation results to continuously improve education and teaching.
Communication	and	53. Use language that conforms to the characteristics of primary school students to carry out education and teaching.
cooperation		54. Good at listening, affable, and communicating effectively with students.
		55. Cooperate with colleagues, and share experience and resources for common development.
		56. Communicate and cooperate effectively with parents to promote the pupils' development.
		57. Assist the primary school in establishing a good relationship of cooperation and mutual assistance with the community.
Reflection	and	58. Actively collect and analyze relevant information, constantly reflect on it, and improve education and teaching.
development		59. Conduct exploration and research on the actual needs and problems in education and teaching.
		60. Make professional development plans, actively participate in professional training, and continuously improve professional quality.

Source: MOE, 2012.

In addition, there are four implementation suggestions. It mentions that education administrative departments at all levels should take the professional standards as the basis for the professional development of primary teachers. According to the needs of the reform and development of primary education, it needs to play the leading and guiding role of the professional standards, deepen the reform of teacher education, establish a quality assurance system for teacher education, and continuously improve the quality of primary school teacher training.

Teacher education institutions that offer primary school teacher education should take professional standards as the main basis for primary school teacher cultivation and training. They need to pay attention to the professional characteristics of primary school teachers and strengthen the development of primary education. In order to improve primary school teacher training programs, the institutions should scientifically set teacher education courses and reform education and teaching methods.

3.2.3. Special Education Teacher Professional Standards (Trial)

Special education teachers play a critical role in facilitating Chinese inclusive education as resource teachers or itinerant teachers in regular primary and secondary schools. In 2015, MOE released other critical professional standards for special education teachers. Firstly, the definition of special education teachers is presented. Special education teachers refer to "professionals who work in special schools, regular preschools, primary schools or secondary schools, have professional education and training, professional ethics and professional knowledge and skill of special education" (MOE, 2015, p. 1). Then, the standards introduce the basic content of this teacher's professional standards, which comprises three dimensions, 14 professional areas, and 68 basic requirements. These three dimensions are the same as the Primary Teacher Professional Standards (2011).

Table 12 Special Education Teacher Professional Standards 2015 (Trial)

Dimensions	Professional Areas	Basic requirements
Professional philosophy and morality	Professional understanding and awareness	1. Implement the party and state education policies, and abide by education laws and regulations.
		2. Understand the meaning of special education, love special education, and have professional ideals and professionalism.
		3. Recognize the professionalism and uniqueness of special education teachers, and pay attention to their professional development.
		4. Have professional ethics and act as role models.
		5. Have a team spirit, active cooperation, and exchange.
	Attitudes and behaviors toward pupils	6. Care for students, attach importance to students' physical and mental health and protect their safety in the first place.
		7. Treat everyone equally, respect the pupils' human dignity, and safeguard their legitimate rights and interests. No irony, sarcasm, discrimination against elementary school students, or corporal punishment or disguised corporal punishment to pupils.
		8. Understanding disability as an expression of human diversity, respecting individual differences, and taking the initiative to understand and meet the different needs that are beneficial to their physical and mental development.
		9. Guide students to correctly understand and treat disabilities, self-esteem, self-confidence, self-improvement, and self-reliance.
		10. Always have positive expectations for students and believe that every student can succeed. Actively

		create conditions for students to have a happy school life.
	Attitudes and behaviors in education and teaching	11. Establish student-centered education and moral education first philosophy, combine the knowledge learning, ability development, and moral cultivation of students, and combine potential development with defect compensation to improve students' comprehensive quality.
		12. Respect the laws of special education and the laws of students' physical and mental development, and provide a suitable education for every student.
		13. Stimulate and protect students' curiosity and self-confidence, guide students to experience the joy of learning, and cultivate students' hands-on ability and spirit of inquiry.
		14. Emphasize the role of life experience in the growth of students, and pay attention to the integration of education and teaching, rehabilitation training, and life practice.
		15. Attach importance to the cooperation between schools, families, and communities, and make comprehensive use of various resources.
		16. Respect and play the educational and guiding role of the Young Pioneers organization.
	Personal accomplishments and behavior	17. Caring, responsible, patient and careful.
		18. Optimistic, enthusiastic and cheerful, with affinity.
		19. Have a good setback resistance, be good at self-regulating emotions and maintain a peaceful mind.
		20. Be diligent in learning and keep making progress.
		21. The dress is neat and decent, the language is standardized and healthy, and polite manners.
Professional knowledge	Students' development of	22. Lean on the relevant laws, regulations, and policies on the survival, development, and protection of students.

	knowledge	23. Understand the specificity and universality of students' physical and mental development, and grasp the individual differences in the types, causes, degrees, development levels, and development speed of students' disabilities, as well as educational strategies and methods.
		24. Understand the knowledge and methods of adolescent and sexual health education for students.
		25. Grasp the basic knowledge and methods of crisis intervention, safety protection, and rescue in response to various violations and injuries that may occur to students, accidents, and dangerous situations.
		26. Understand the knowledge of student placement and the connection between different educational stages, and obtain the methods to help students make a smooth transition.
	Subject knowledge	27. Gain the knowledge system, basic ideas, and methods of the subjects taught.
		28. Understand the connection between the taught subject and other subjects and social life.
	Knowledge in education and teaching	29. Grasp the basic theory of primary education and teaching and understand the basic knowledge and methods of rehabilitation training.
		30. Grasp the knowledge and methods of special education assessment.
		31. Gain the basic principles and methods of students' moral psychology and teaching psychology.
		32. Gain the curriculum standards of the subjects taught and the strategies and methods of teaching adjustment based on standards.
		33. Gain the strategies and methods of integrating emotional attitudes, social interaction, and life skills in subject teaching.
		34. Understand the characteristics of students' language development, and be familiar with strategies

		and methods to promote students' language development and communication.
	Liberal knowledge	35. Have corresponding knowledge of natural sciences and humanities, and social sciences.
		34. Understand the basic situation of Chinese education and disabled people's development.
		35. Have the corresponding knowledge of art appreciation and performance.
		36. Have the knowledge of information technology to adapt to the modernization of educational content, teaching methods, and approaches.
Professional skills	Environment creation and utilization	39. Create a safe, equitable, appropriate, and inclusive learning environment that supports and promotes student learning and development.
		40. Build good teacher-student relationships and help students build good peer relationships.
		41. Effectively use class and classroom teaching management strategies, establish class order and rules, and create a good class atmosphere.
		42. Make reasonable use of resources to provide and produce suitable teaching aids, auxiliary aids, and learning materials for students to support students' effective learning.
		43. Apply different management strategies, such as positive behavior support, to properly prevent and intervene in students' problem behaviors.
	Education and instructional design	44. Use appropriate assessment tools and methods to comprehensively assess students' special educational needs.
		45. Develop individualized education plans for students based on the results of educational assessments and curriculum content.
		46. According to the curriculum and the physical and mental characteristics of students, reasonably

	adjust the teaching objectives and teaching content and write individualized teaching activity plans.
	47. Reasonably design various class and Pioneer activities.
Organization and implement	48. Create an appropriate teaching environment according to the students prior knowledge and experience, and stimulate their interest in learning and enthusiasm
	49. According to the special needs of students, choose appropriate teaching strategies and methods for effective teaching.
	50. Use curriculum integration strategies to integrate knowledge and skills in multiple disciplines and fields.
	51. Reasonably arrange daily activities to promote the connection of education and teaching, rehabilitation training, and life practice.
	52. Integrate and apply modern educational technology and assistive technology to support student learning.
	53. Assist relevant professionals in carrying out necessary rehabilitation training for students.
	54. Actively provide students with necessary career planning and vocational guidance, and cultivate students' vocational skills and employability.
	55. Properly use Mandarin, Braille and sign language for teaching, and standardize the writing of pen, chalk, and calligraphy.
	56. Properly respond to emergencies.
Incentives and Evaluation	57. Observing and judging the daily performance of students, discovering and appreciating their little progress.

		58. Flexible use of multiple evaluation methods to give students appropriate evaluation and guidance
		59. Actively guide students' self-evaluation.
		60. Use the evaluation results to continuously improve education and teaching.
	Communication and cooperation	61. Use appropriate communication strategies and assistive technologies to communicate effectively and promote student participation, interaction, and cooperation.
		62. Effectively communicate and cooperate with parents and offer services such as education consultation and door-to-door education.
		63. Cooperate and communicate with colleagues and other professionals, share experience and resources, and common development.
		64. Cooperate with general educators to guide and implement the Learning in the Regular Classrooms.
		65. Assist the school and the community to build a good relationship of cooperation and mutual assistance and promote the integration of students in the community.
	Reflection and development	66. Actively collect and analyze relevant information about special education, constantly reflect on it, and improve education and teaching.
		59. Conduct exploration and research on the actual needs and problems in special education and teaching.
		60. Make professional development plans, actively participate in professional training, and continuously improve professional quality, in line with the development of special education.

Source: MOE, 2015.

The terms or phases in this document also denote inclusion in education. For example, in the learning areas of attitudes and behaviors toward pupils of the dimension of professional philosophy and morality, it states: "understanding disability as an expression of human diversity, respecting individual differences, and taking the initiative to understand and meet the different needs that are beneficial to their physical and mental development" (Art. 8). It explicitly denotes that disability as one kind of human diversity. Most of the basic requirements are the same as the ones in the professional standards of primary school teachers.

However, the professional areas and basic requirements are partly different. For example, the professional area "environment creation and utilization" was added to Special education teacher professional standards. More requirements for special education teachers, such as "obtain the curriculum standards of the subjects taught and the strategies and methods of teaching adjustment based on standards", "use appropriate assessment tools and methods to comprehensively assess students' special educational needs", "develop individualized education plans for students based on the results of educational assessments and curriculum content".

The three teacher professional standards are divided into three dimensions "professional philosophy and morality, professional knowledge, and professional skills". It seems that according to three teacher's professional standards, teacher education colleges or institutions can train lots of high-quality teachers to promote inclusive education in China from the document analysis. Nevertheless, this study showed that there were many practical barriers in the schools or classrooms to develop inclusive education, especially in the aspect of teaching and instruction. More details are in Chapter four.

4. Relevant aspects of inclusive education

The UNESCO booklet *Promoting Inclusive Teaching Education: Methodology* (Kaplan & Lewis, 2013e) identified several main types of system barriers (attitudes, practices, resources, policies, environment) and had some examples of barriers and solutions. In

fact, these barriers also reflected the relevant aspects of inclusive education. As shown in Table 13, the researcher reclassified the types of barriers into three relevant aspects of inclusive education according to the research purposes: Values and attitudes, management and environment, and teaching and instruction.

Table 13 Main types of system barriers to promoting inclusive education

Types of barriers	Examples	Solutions
Values and attitudes	A bias against children and adults with disabilities and/or children/ adults from ethnic minority or low caste groups (in some contexts) in schools and teacher education institutions.	A welcoming attitude to all children and adults which sees their diversity as an opportunity for better education and not as a problem.
	A belief that slower learners are not worth wasting time on	A belief what working to support the learning of slower learners is just as valuable and worthwhile as supporting the quicker learners
	A false belief that not all children are able to learn	
Management and environment	A lack of chairs, desks, textbooks	More money and support for procuring chairs, desks and teaching and learning materials
	The lack of assistive devices for children and adults who require them	
	A lack of teaching and learning resources which are accessible to children/adults with disabilities, accessible to children/adults from minority linguistic and ethnic groups, locally relevant, etc.	Making teaching and learning resources which are locally relevant and accessible
	Policies which do not support children and adults with disabilities	Policies which support accessibility in schools and teacher education institutions for learners with disabilities
	Policies which do not support the development of locally relevant	Policies which support

	curricula and materials in relation to communities and classrooms	teachers to adapt curricula and materials to local needs and contexts in relation to communities and classrooms
	Inaccessible classrooms, e.g., multi-story school buildings with no access to upper floors for children with mobility challenges, a lack of ramps, and a lack of accessible toilets for people with disabilities	A focus on making all schools, teacher education institutions and classrooms fully accessible for learners with disabilities (this need not be dependent on extensive financial resources-e.g., ramps can be built cheaply using locally available building materials, as opposed to costly material imported from elsewhere)
Teaching and instruction	Rote teaching and learning Exam-centered education culture Teacher seen as the transmitter of knowledge Seating arrangements that are fixed and rigid and do not promote interaction and active engagement by all A lack of interactive and participatory teaching methods and activities Corporal punishment Unwillingness/inability to deal with learners with disabilities in schools and teacher education institutions	Varying individual and group work and the use of fun, interactive, participatory and learner-led activities, such as drawing, singing, role-play, etc. Positive discipline Being proactive in working with children and adults with disabilities (and developing the skills to do so) to include them fully

Source: Adapted from Kaplan & Lewis, 2013e, p. 6-8.

The different researchers focused on various aspects of inclusive education in line with their research purposes. The study of Kaplan & Lewis (2013e) identified the barriers to inclusive education to promote inclusive teacher education.

Hunt (2020) claimed that three key elements guarantee the right to inclusive education for people with disabilities: non-discrimination, zero rejection, and reasonable accommodation. "The right to education without discrimination in any aspect of education encompasses all internationally prohibited grounds for discrimination" (UNESCO, 2020a, p. 33). Zero rejection refers to all children having the right to education, regardless of circumstance. Reasonable accommodation supports children with disabilities to gain equitable education beyond accessibility.

Index for Inclusion (Booth & Ainscow, 2011) explored possibilities for development with three dimensions: inclusive cultures, inclusive policies, and inclusive practices. Many countries confirmed that these interconnected dimensions are widely considered critical to improving school development towards inclusive orientation because the Index was translated and adopted in more than thirty countries (Booth & Ainscow, 2011). The teachers' competence is widely considered one of the important factors for the successful implementation of inclusive education (Mu et al., 2015; de Boer et al., 2011). Attitudes, knowledge, and skills are widely seen as the three factors of inclusive education teachers' competence (Mu et al., 2015; Deng et al., 2016). In summary, a number of aspects are related to inclusive education. In this thesis, the researcher mainly focused on three dimensions: values and attitudes, management and environment, and teaching and instruction.

4.1. Values and attitudes towards inclusive education

As Booth & Ainscow (2011) noted, "inclusion is most importantly seen as putting inclusive values into action. It is a commitment to particular values which accounts for a wish to overcome exclusion and promote participation" (p. 21). They emphasized that inclusive values are so important that a framework of values was created in Figure 5. The inclusive development of the school is based on inclusive values.

Figure 5 A framework of inclusive values

Structures	–	Relationships	–	Spirit
Equality		Respect for diversity		Joy
Rights		Non-violence		Love
Participation		Trust		Hope/optimism
Community		Compassion		Beauty
Sustainability		Honesty		
		Courage		

Source: Booth & Ainscow, 2011, p. 22.

As it was shown in Figure 5, inclusive values included equality, rights, participation, community, respect for diversity, sustainability, non-violence, trust, compassion, honesty, courage, joy, love, hope/optimism, and beauty. "Each value summarises an area of action and aspiration for education and society more widely" (Booth & Ainscow, 2011, p. 21). All these values are indispensable to developing inclusive education. These inclusive values - "Equality, participation, community, respect for diversity and sustainability" - are particularly crucial to establish "inclusive school structures, procedures, and activities" (Booth & Ainscow, 2011, p. 21). In the Index for Inclusion, Booth & Ainscow (2011) suggested that primary schools might use simple statements to explain their inclusive values in Figure 6 because it is easy to read and understand them. So that school staff can use these inclusive values to guide their actions.

The inclusive values embrace the principle of inclusive education. Therefore, from the national to classroom level, from inclusive policies to inclusive practices in the classrooms, all stakeholders and all staff bear in mind that: "Every child has a fundamental right to education and must be given the opportunity to achieve and maintain an acceptable level of learning. Every child has unique characteristics, interests, abilities, and learning needs." (UNECO,1994, p. viii)

It suggests that every child is different. It means every child should have an equal opportunity to access school, regardless of their physical, emotional, and intellectual differences. The most crucial point is that schools welcome every child and every child

feels valued in the classroom. Everyone has the opportunity to participate in learning activities.

Figure 6 Inclusive values in our school

In our school:

- We want everyone to be treated fairly and to feel part of a community.
- We care about children and adults in the school.
- We enjoy finding out about each other, what we have in common and how we differ.
- We know that we are connected to others in the world through trade and because we share a planet.
- We are concerned when people suffer hunger, disease and poverty.
- We learn from each other and share what we know.
- We connect what we learn at home and at school.
- We sort out problems by listening to each other and finding solutions together.
- We speak up when we see that something is wrong.
- We celebrate all the different plants and animals in the world.
- We try to save energy and avoid waste.
- We help to make our school and the world better places to live in.

Source: Booth & Ainscow, 2011, p. 27.

One of the important factors in determining the success of inclusive teaching is teachers' attitudes. According to O'Brien (2000), the real key resource for successful inclusion lies inside the teacher's head. Research suggests that when inclusion is carefully managed and planned, mainstream teachers gradually move from an attitude of skepticism to wanting to collaborate as part of a team (Wood, 1998). Vayrynen (2000) identified one of the major challenges of developing inclusive education systems is attitude. "Attitudes are the greatest barrier, or the greatest asset to the development of inclusion in education" (Vayrynen, 2000, p. 4). Donna et al. (2017) conducted a critical review of the published questionnaire to support researchers in selecting the most appropriate measure. They found that there are nine questionnaires of teachers' attitudes in primary schools under their selection criteria.

Teachers' attitudes are so essential to implement inclusive education that much attention has been paid to it (Antonak et al., 1995; Ewing, Monsen & Kielblock, 2018; De Boer, Pijl, & Minnaert, 2011; Donna et al., 2017; Mahat, 2008). Teachers' attitudes toward inclusion can make a prediction of inclusive behaviors within mainstream classrooms

(Monsen et al., 2014). Attitude is essential for schools to become inclusive. If the staff has a negative attitude, we might conclude that it is unlikely to implement inclusive education. If teachers have a negative attitude, it is impossible to cater for all students' needs. Because these teachers might not be willing to adopt different teaching strategies, teachers' attitudes toward inclusive education affect the implementation of inclusion (Donna et al., 2017) and have a critical influence on teaching activities and planning. Zeng (2007) concluded teachers' attitude to Learning in Regular Classes is generally positive, but the positive attitude is still in its infancy.

4.2. Inclusive schools: Management and environment

The Salamanca Statement and Framework for Action on Special Needs Education emphasize the importance of school management in promoting inclusive education. The school leaders play a criticial role in taking measures to transform schools inclusive. For example, schools provide support to responde to children with special educational needs and develop flexible school management, and work with professionals to remove barriers at school level. Additionaly, communities should also participate in the school improvement for inclusion.

Much research indicated leadership had a strong correlation with school culture(Abawi & Oliver, 2013; Carter & Abawi, 2018). In addition, school leaders must have a philosophy of inclusion to empower all staff to make sense for inclusive education. For example, the principal who has a explicit philosophy focues on inclusion will encourage all to make a commitment for inclusion. Carter & Abawi (2018) believed that social justice leadership can facilitate the inclusive practices and support achieve high-qualtiy educational outcomes for all students. School management that share leadership with staff will make a contribution to effective schools practices (Riveros et al., 2016; Sakiz, 2018) because school leaders have the power to influence the schools to develop inclusive attitudes, beliefs and practices. Ainscow and West (2006) perceived that the change and improvements of schools depends on the school leaders' role in school management and collaboration.

Communities play essential roles in developing inclusive schools. However, their roles are always forgotten. In this section, the researcher will present the key roles of communities and how to work with families and communities.

Community includes "parents, other members of their families, as well as neighbors near the school" (Harris et al., 2004, Booklet 2, p. 3). All the persons living in the neighborhood play a significant role in promoting children's learning. "Communities are the overall context in which children live and learn, and in which they apply what we have taught them" (Harris et al., 2004, Booklet 2, p. 4). The values of the community members could have a profound impact on student learning. For example, parents who value education will ask their children to go to school and support their successful learning. In addition, there is a wealth of practical knowledge in the communities which can be used to improve teachers' teaching and student learning. For instance, teachers can incorporate local culture, festivals, and activities into teaching lessons.

Undoubtedly, teachers have the responsibility to work with parents and community members to promote inclusive practices in schools. Harris et al. (2004) listed the responsibilities of all teachers.

1. to communicate regularly with the home—that is, parents or guardians—about their children's progress in learning and achievement;

2. to work with community leaders to find out which children are not in school and why, and to devise ways to bring them into school;

3. to explain the value and purpose of an ILFE (Inclusive Learning-Friendly Environments) to parents of pupils in their classes;

4. to prepare their pupils to interact with the community as part of the curriculum, such as through field trips or special activities and events;

5. to invite parents and members of the community to be involved in the classroom. (Ibid, Booklet 2, p. 8)

Teachers can work positively with families and communities through field visits,

parent-teacher meetings, holiday parades, and other activities. How do teachers begin communicating with families? Harris et al. (2004) suggested a wide range of effective ways:

1. Hold meetings with family and community groups where you introduce yourself, describe your goals for teaching and for children's learning, the value of diversity in an inclusive, learning-friendly classroom, and discuss the ways in which families and community members can participate in your classroom activities.

2. Once or twice a year, schedule informal discussions with parents to assess their children's learning. Show them examples of their children's work. Stress each child's talents and positive achievements, and talk about how each child can learn even better if she or he overcomes certain obstacles.

3. Send your students' work home to show parents how well their children are doing. Ask them for their opinions about their children's work, and what do they think their children should learn next.

4. Encourage children to talk about what they learn at home and use this information in your lessons. Also, talk with the parents about how what their children are learning in class relates to their life at home. In other words, show how their classroom knowledge can be used, or is being used, at home.

5. Conduct community field visits or ask children to interview parents or grandparents about their own childhood years in the community, and then have the children write stories or essays about "Community Life in the Past."

6. Encourage family members to participate in classroom activities and invite community experts to share their knowledge with your class. (Ibid, Booklet 2, p. 11-12)

Furthermore, it is important to communicate regularly with parents about the progress of their children. So, parents can "know what their child has learned well and what the child still needs to learn" (ibid, p. 14). Teachers should explain "inclusive learning-

friendly environment" to parents. It means that everyone, including parents, and community members, supports student learning, and every child benefits from inclusive education.

Parents and communities can offer practical support to promote inclusive education in schools. "Community organizations, parent-teacher associations, and school management committees often get involved in helping to improve school facilities" (ibid, p. 22), such as community members helping build ramps where the schools have many steps. Parents can be involved in the classroom to contribute to the development of inclusive education in the schools. For example, parents can act as volunteers to assist teachers with classroom activities. Or parents may be invited to classroom guest speakers to share information and knowledge about their careers and work.

In order to provide school and classroom modifications, implementing inclusive practices involve cooperation and interaction of principals and teachers (Kuyini & Desai, 2008). The school head makes decisions and adjustments for inclusion at the school level. Teachers are trained to use inclusive teaching strategies to cater for all students' needs. Parents and students have important contributions to implementing inclusion (Lindsay, 2007). Hence, parents and students should be involved in the inclusive process. The environment encompasses the physical environment and psycho-social environment (Harris et al., 2004). For example, the physical environment includes accessible school buildings and classrooms, learning resources, etc. The psycho-social environment includes respecting and valuing students' differences and embracing the diversity of students and emphasizing belonging and self-esteem, etc. Due to the challenge of students with diverse needs and abilities in the Asia-Pacific region and inequality in education in all countries, UNESCO Bangkok issued a toolkit: *Embracing Diversity: Toolkit for Creating Inclusive Learning-Friendly Environments*, to address diversity and build more inclusive and learning-friendly environment in schools (Harris et al., 2004). "Learning Environment" refers to "any formal or non-formal setting where children gain knowledge and the skills to use that knowledge in their daily lives" (Harris et al., 2004, p.10).

Figure 7 Characteristics of an inclusive, learning-friendly environment
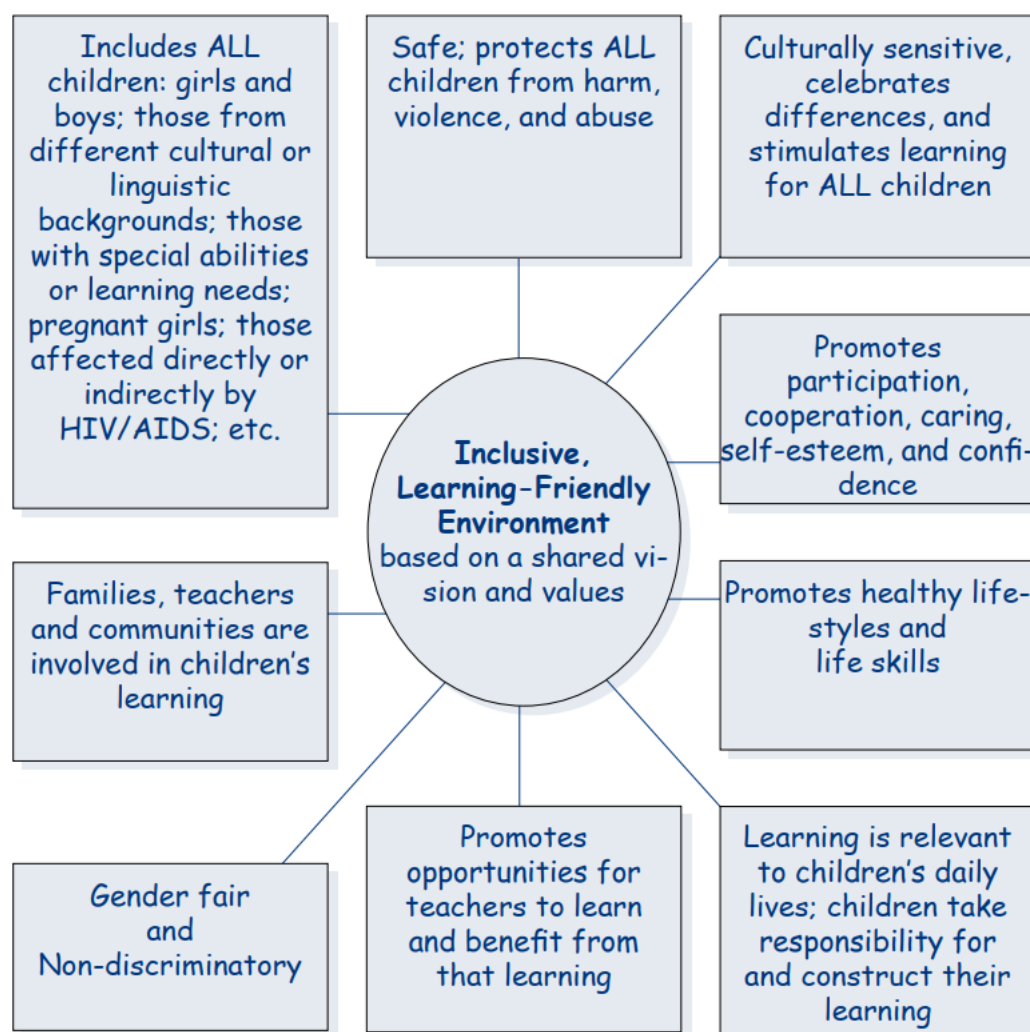
Source: Harris et al., 2004, p. 11.

Figure 7 presents the characteristics of an inclusive, learning-friendly environment in the toolkit. 1. Inclues all children regardless of their characteristic. 2. Safe: protects all children from harm, violence, and abuse. 3. Culturally sensitive celebrates differences, and stimulates learning for all children. 4. Promotes participation, cooeration, caring, self-esteem, and confidence. 5. Promotes healthy life-styles and life skills. 6. Learning is relevant to chilren's daily lives; children take responsibility for and construct their learning. 7. Promotes opportunities for teachers to learn and benefit from that learning. 8. Gender fair and non-discriminatory. 9. Families, teachers and communities are involved in children's learning. All in all, a inclusive learning-friendly environment is based on shared vision and values. In a inclusive learning-friendly environment, every

child receive an appropriate education.

As UNESCO (1994) noted, developing inclusive schools required changing some aspects of schooling: curriculum, buildings, school management, pedagogy, assessment, staffing, school ethos, and extracurricular activities. These aspects are needed to improve their high quality and enhance higher levels of learning achievement by all pupils (UNESCO, 1994). The aspect of school management emphasizes the contribution of all staff. The whole school should work together to be the community accountable for the success of each student. All the teachers with good co-operation are responsible for every student's learning achievement. Research suggests that flexible school management has proved to be effective in promoting change in schools.

4.3. Inclusive practices at the schools

"Teachers' practices are central to effective inclusion" (Winter & O' Raw, 2010, p. 30). In an inclusive school, everyone feels valued and be welcomed. The principles of inclusion provide a guideline to assist inclusive schools in implementing inclusive practices. An inclusive school that accommodates all students' needs depends on high-quality teachers implementing inclusive practices. When teachers teach in class, they should keep the principles of inclusion in mind for consideration of students' needs.

UNESCO (2017) identified four dimensions of the policy review framework. The key features of dimension "practices" are:

Schools and other learning centres have strategies for encouraging the presence, participation and achievement of all learners from their local community.

Schools and other learning centres provide support for learners who are at risk of underachievement, marginalization and exclusion.

Teachers and support staff are prepared to respond to learner diversity during their initial training.

Teachers and support staff have opportunities to take part in continuing

professional development regarding inclusive and equitable practices. (p. 32)

By creating an inclusive, learning-friendly environment, teachers can build a learning-friendly classroom. Harris et al. (2004) concluded some characteristics of a learning-friendly classroom in Table 14 by comparing a traditional classroom.

Table 14 The characteristics of a learning-friendly classroom

	Traditional classroom	**Inclusive, learning-friendly classroom**
Relationships	Distant (the teacher addresses students with her back towards them)	Friendly and warm. The teacher sits next to and smiles at the child with a hearing impairment. The parent-helper praises this child and assists other children.
Who is in the classroom?	The teacher as well as students with quite similar abilities	The teacher, students with a wide range of backgrounds and abilities, and others such as the parent-helper
Seating arrangement	Identical seating arrangement in every classroom (all children seated at desks in rows; girls on one side of the room, boys on the other)	Different seating arrangements, such as girls and boys sitting together on the floor in two circles or sitting together at tables
Learning materials	Textbook, exercise book, chalkboard for teacher	Variety of materials for all subjects such as math materials made from newspapers, or posters and puppets for language class
Resources	The teacher is interacting with children without using any additional teaching materials.	The teacher plans a day in advance for the class. She involves the children in bringing learning aids to the class, and these aids do not cost anything.
Evaluation	Standard written examinations	Authentic assessment; Observations; Samples of children's work over time such as portfolios

Source: Harris et al., 2004, p. 7.

A learning-friendly classroom is different from a traditional classroom in six aspects involving relationships, people in the classroom, seating arrangement, learning materials, resources, and evaluation. In a learning-friendly classroom, teachers and students have a good relationship, and everyone is welcomed and valued. There is a teacher, students with different backgrounds and characteristics, and a teacher assistant or a parent-helper in the classroom. The seating arrangement is flexible to change according to the learning requirements. Teachers provide students with a variety of materials to learn. In addition, some learning aids are brought into the classroom to support students in learning. Furthermore, various strategies of assessment are used to evaluate student outcomes. Inclusive practices involve how to do to promote inclusive education (Rouse, 2009). Much research on inclusive practices at different levels has been conducted, but this study focuses on the teaching strategies for inclusion in the regular schools. The next section details the teaching strategies to promote inclusive education.

5. Teaching strategies to promote inclusive education

Inclusive teaching absolutely focuses on teaching and instruction in inclusive settings. Teaching and instruction is another important and necessary dimension concerning inclusive teaching strategies. As Kaplan & Lewis (2013e) argued, inclusive education is not realized in the classroom realities with inclusive teaching methodology. Inclusive teaching methodology refers to how teaching is organized to achieve inclusive education in reality. In the advocacy guide *Promoting Inclusive Teaching Education: Methodology*, teaching methods should be flexible, learner-centered, and inclusive. Teacher-centered teaching methods are not inclusive. When teachers use these teaching methods, they cannot adapt the curriculum to meet the diverse needs of different learners. In a learner-centered classroom, teachers are facilitators of learning, use varied and interesting teaching approaches to respond to learners' diverse needs, and share classroom management with students to develop their self-regulation.

In order to welcome diversity and promote inclusive education, teachers should be prepared to employ interactive and varied teaching approaches, use formative and authentic forms of assessment, and develop personalized learning approaches for students (Forgacs, 2012). Teachers should be trained in specific inclusive methods to support the learning of children with different gender, mixed ages and levels, and disabilities. Inclusive teaching methodology also requires teachers to adapt and develop curricula and resources which are appropriate to their students' needs in local contexts. Teachers should have training in using a variety of inclusive assessment, such as formative, continuous, authentic, and summative forms of assessment.

In this dimension, the research will mainly examine nine inclusive teaching strategies. While teachers have a positive attitude and inclusive values, inclusive practices would not happen without inclusive teaching strategies. Lian (2007) noted that the teacher's acceptance of the LRC policy relates to understanding relevant knowledge and gaining effective teaching strategies. When they have relevant knowledge and gain effective teaching strategies, even those who originally opposed the LRC policy will gradually change their original attitudes (Lian, 2007).

"Teaching strategies" is one of the overarching themes of inclusion in the worldwide research of inclusive education. Winter & O' Raw (2010) found that in spite of a range of research conducted to help schools to move to inclusive education, they didn't provide teaching practices that address the needs of all learners. Hence, they (Winter & O' Raw, 2010) used a matrix strategy to identify ten prevailing themes of inclusion, aiming to construct a framework that could be used to assist schools in structuring their provision of an inclusive educational environment. A list of practices that represented the scope of inclusive practices worldwide was produced after reviewing the international literature on best practices in inclusive education. Teaching strategies play a critical role in inclusive practices by helping teachers cater to every different student in an inclusive school.

There is also some research on inclusive teaching strategies in relation to a specific

subject and primary schools. For example, Malebese (2017) used socially inclusive teaching strategies to incorporate indigenous knowledge systems into the teaching and learning process, transforming the teaching of English first an additional language. Darrow & Adamerk (2018) state various inclusive teaching strategies are effective in the inclusive music classroom. A study explored inclusive teaching strategies in primary schools. Elder et al. (2015) examined teachers' use of inclusive teaching strategies in primary schools. The study showed that after a short time of training, these teachers, administrators, and Ministry officials implementing inclusive teaching strategies certified benefit for meeting the diverse need of students in western Kenya. Zeng (2007) conducted a survey on teachers' attitudes, teaching strategies, and needful support in 11 primary schools with 70 respondent teachers in the Siming District of Xiamen City. Only 65 teachers are active in using inclusive teaching strategies for students with special needs. Part of the teaching strategies in the survey included 16 items. However, they had a different order on the efficacy of these teaching strategies in the inclusive classroom, as follows:

Table 15 Frequency of use and order of efficacy of teaching strategies in the inclusive classroom

Teaching strategies	Frequency of use	Order of efficacy
Cater to and encourage the student with special needs	65	1
Lower teaching and learning objectives	62	5
Mobilize parent's involvement	51	10
Mobilize other students' educational resources	50	13
Extend the study time of students with special needs	49	17
Change the presentation way of textbook	48	14
Design individual homework	48	2
Provide supplementary materials	43	7
Group students for instruction	41	3
Design an individual educational plan	41	8
Mobilize special education resources within the school	39	15

Adopt a multimedia teaching method	36	9
Identify the obstacles in the cognitive process of students, and develop targeted teaching	35	4
Modify and adapt the curriculum	31	12
Self-compile teaching materials	25	11
Design individual curriculum	23	16
Mobilize professional support outside the school	23	6

Source: Adapted from Zeng, 2007, p. 5.

There is a range of research on inclusive teaching strategies. For example, Li et al. (2012) addressed these teaching difficulties such as teaching strategies and methods of Learning in the Regular Classroom, the formulation and implementation of the individualized education plan, and the adjustment and development of the curriculum are the common problems teachers encountered, and they are also important problems to be solved urgently. The book of Wu (2018) explored many effective inclusive teaching strategies to support teachers in primary or secondary schools according to her rich experience in implementing inclusive education in Taiwan. These teaching strategies empower teachers to provide suitable educational support to help students overcome their learning difficulties according to their characteristics or conditions. The individual differences of students require a variety of teaching methods and content. That is, teachers should adopt various corresponding teaching methods for different disciplines, discontent, and various students to ensure that each student gets the most reasonable education and development. Yu (2016) confirmed that scientific, reasonable, and effective inclusive teaching is an important guarantee for achieving inclusive education. Inclusive schools must conduct diverse teaching based on the different characteristics of students to meet the different needs of students. Teachers have to face different characteristics of the teaching objects, so they need to gain flexible teaching methods and make appropriate adjustments according to the individual needs of students.

Wang (2016) conducted and analyzed 15 classroom observations in Haidian District,

Beijing. She concluded the teaching strategies in Learning in the Regular Classroom, such as adapted teaching objectives, cooperation learning, peer tutoring, after-class or individual tutoring, combined formative assessment and summative assessment, teacher-student assessment, student-student assessment, self-assessment, etc.

Winter & O' Raw (2010) made a comprehensive overview of principles and practices relating to inclusive education for children with special educational needs. One section involved "teaching strategies" for inclusive education. Inclusive education challenges teachers to develop a large number of teaching strategies. Certain teaching strategies have been identified that are helpful for students with special educational needs in the inclusive classroom: cooperative teaching, cooperative learning, individualized planning, collaborative problem-solving, heterogeneous grouping, and differentiation.

Although teacher strategies were highlighted as a vitally important factor in the implementation of inclusive practices in regular schools (e.g., Winter & O' Raw, 2010; Davis & Florian, 2004), research seldom focused on teaching strategies in the inclusive classroom, especially in the Chinese context. This present study will examine inclusive strategies in inclusive schools to enrich inclusive practices in a designed context. In addition, we will develop a set of inclusive teaching strategies that could help teachers to accommodate for complicated needs of all students. Liu (2004) noted the purpose of inclusive classroom instruction is to give all children the right to access the education that fits them best so that their potential capabilities and personalities are brought to the fullest play.

According to the literature, research on inclusive teaching strategies, and the researcher are summarized in Table 16:

Table 16 Previous research on inclusive teaching strategies

Research	Inclusive teaching strategies
UNESCO, 2001, p.74 (Inclusive teaching with nine golden rules)	Include all pupils Communicate Manage the classroom

David Mitchell, 2008	Plan your lessons
	Plan for individuals
	Give individual help
	Use assistive aids
	Manage behavior
	Work together
	Inclusive education: Adapt the mainstream to suit all learners
	Cooperative group teaching
	Peer tutoring
	Collaborative teaching
	Parent involvement
	School culture
	School-wide positive behaviour support
	Indoor environmental quality
	Classroom climate: Create a positive, motivating classroom environment
	Social skills training
	Cognitive strategy instruction
	Self-regulated learning
	Mnemonics and other memory strategies
	Reciprocal teaching
	Phonological awareness and phonological processing
	Cognitive behavioural therapy
	Behavoural approaches
	Functional behavioural assessment
	Direct instruction
	Review and practice
	Formative assessment and feedback
	Assistive technology
	Augmentative and alternative communication
	Opportunities to learn
Deng, 2016	Differentiate instruction

	co-teaching
	collaborative learning
	individualized teaching
	structured teaching
Education Bureau the Government of the Hong Kong Special Administrative Region	Curriculum adaptation
	co-teaching
	collaborative learning
	peer tutoring
	task analysis
	Multi-sensory teaching
	individual education plan
	self-learning
Tichá, 2018	Universal design for learning
	multidisciplinary teams
	co-teaching
	formative assessment
	multi-tiered systems of supports
	individualized learning plans
	differentiated instruction.
Winter & O' Raw, 2010	co-operative teaching
	cooperative learning
	individualized planning
	collaborative problem-solving
	heterogeneous grouping and differentiation
Wu, 2018	Independent learning strategy
	multilevel teaching
	thematic teaching
	whole language approach
	cooperative teaching
	corner teaching
	activity teaching
	subject teaching adaptation
	study sheet adaptation
	homework adaptation

Source: The researcher elaborated.

As shown above, in Table 16, there are a variety of teaching strategies that the teachers could use to improve their instruction in the inclusive setting. Davis & Florian (2004) showed a series of teaching strategies and approaches for pupils with special educational needs. They concluded that a combination of strategies produces more powerful effects than a single strategy solution. So, the researcher will focus on these inclusive teaching strategies in this study: Curriculum differentiation, universal design for learning, differentiated instruction, co-teaching, collaborative learning, peer tutoring, individualized education plan, structured teaching, and assessment strategies.

5.1. Curriculum differentiation

The curriculum involves issues such as how to organize the class, how to interact with students with each other, and how to modify the instruction to accommodate the students' needs. Winter & O' Raw (2010) pointed out that accessible and flexible curricula can be key to creating schools that meet the needs of all students. To select appropriate curriculum content for students with special educational needs, Brennan (1985) suggests applying what he calls the "4R test" (Westwood, 1997):

• Is it real? Does it fit with the student's experiences?

• Is it relevant? Will it be of value for the student to know this?

• Is it realistic? Given this student's age, ability, and attainments, is it achievable at this time?

• Is it rational? Can the purpose of this learning be made clear to the student?

The curriculum must take into consideration the different abilities and needs of all students. It must be capable of being adapted to meet diverse needs. Strategies such as flexible time frames for work completion, differentiation of tasks, flexibility for teachers, time for additional support, and emphasis on vocational as well as academic goals can be useful (UNESCO, 2005).

"The process of modifying or adapting the curriculum according to the different ability levels of the students in one class" (UNESCO, 2004, p. 14) is essential to meet the students' different needs. A broad range of research indicates that teachers need more education and training on how they can be capable of teaching students. In order to support teachers in facing the challenges that inclusive education has brought about, UNESCO (2004) published an essential training material, Teacher Education Resource Pack: Special Needs in the Classroom. The document Changing Teaching Practices uses curriculum differentiation to respond to students' diversity and also encourages teachers to adapt, modify and differentiate their teaching in accordance with their differences. By doing so, all students can be safeguarded to learn to their potential in the classes (UNESCO, 2004). Specially speaking, the teachers can differentiate the curriculum by modifying three curricular components. It is shown in Figure 8.

Figure 8 Curricular components – Teachers can modify

Curricular Components—Teachers Can modify the:

Methods of Presentation ▷▷▷	How new information is presented to students. For example, does the teacher introduce the topic or do the students introduce it to each other in pair work?
Methods of Practice and Performance ▷▷▷	What methods and/or activities are used by students in order for them to understand the content in their own terms.
Methods of Assessment ▷▷▷	How students show understanding of what they are learning or have learned.

Source: UNESCO, 2004, p. 9.

Curriculum differentiation is "a way of planning, assessing and teaching a heterogeneous group of students in one classroom where all students are learning at their optimal level" (UNESCO, 2004, p. 9). To provide a variety of learning experiences to meet students' different needs, we need to differentiate the curriculum. Firstly, teachers should know their students' individual characteristics, such as background, interests, and learning modality. By using students' information, teachers can plan appropriate learning activities.

5.2. Universal design for learning

Ron Mace, an architect and product designer with a disability, coined the term *universal design* in the 1980s. At first, the term meant the conception of a product or building to be designed or built accessible by all the people (or the greatest possible amount of people) (Liu, & Anderson, 2008). Universal design for learning is "a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn". (CAST[4], 2020). The philosophy of UDL relies on the three principles-multiple means of engaging students, multiple means of representing knowledge, and multiple means of students' action and expression. They are based on 9 guidelines and 31 checkpoints, shown in the following Table 17:

Table 17 UDL Guidelines

3 Principles	9 Guidelines	31 Checkpoints
Engagement	Recruiting interest	Optimize individual choice and autonomy
		Optimize relevance, value, and authenticity
		Minimize threats and distractions
	Sustaining effort and persistence	Heighten salience of goals and objectives
		Vary demands and resources to optimize challenge
		Foster collaboration and community
		Increase gainy-oriented feedback
	Self-Regulation	Promote expectations and beliefs that optimize motivation
		Facilitate personal coping skills and strategies
		Develop self-assessment and reflection
Representation	Perception	Offer ways of customizing the display of information
		Offer alternatives for auditory information
		Offer alternatives for visual information
	Language & Symbols	Clarify vocabulary and symbols
		Clarify syntax and structure
		Support decoding of text, mathematical

---

[4] CAST, the Centre for Applied Special Technology, an Understood founding partner, develops innovative approaches to education based on the principles of Universal Design for Learning (UDL).

		notation, and symbols
		Promote understanding across languages
		Illustrate through multiple media
	Comprehension	Activate or supply background knowledge
		Highlight patterns, critical features, big ideas, and relationships
		Guide information processing and visualization
		Maximize transfer and generalization
Action & Expression	Physical Action	Vary the methods for response and navigation
		Optimize access to tools and assistive technologies
	Expression & Communication	Use multiple media for communication
		Use multiple tools for construction and composition
		Build fluencies with graduated levels of support for practice and performance
	Executive functions	Guide appropriate goal-setting
		Support planning and strategy development
		Facilitate managing information and resources
		Enhance capacity for monitoring progress

Source: CAST (2018).

Drawing upon neuroscience, UDL makes it differentiated to design learning environments and activities in respect of means of engagement, representation, action, and expression (CAST, 2018). Instead of separating students, multiple learners are allowed to enter the learning with the principles of UDL (King-Sears, 2009).

Having been viewed as an inclusive educational reform (Katz, 2015), UDL is often "promoted as an inclusive teaching methodology for supporting all students within diverse classrooms" by accounting for all students' different needs (Matthew, 2017). Matthew (2017) concluded that the implementation of the UDL framework improves the learning process for all students by meta-analyzing 18 studies examining the

effectiveness of UDL. Teaching content would be accessible to all students with different educational backgrounds, learning styles, and abilities by providing multiple means of representing knowledge. In other words, the UDL framework can reduce the barriers for all learners (Matthew, 2017). Kortering et al. (2008) contrasted the perspectives of mainstreamed students with disabilities (i.e., leaning learning disabilities, behavioral disorders) in two high schools and their peers. They indicated that all student of respondents wanted their teachers to use more UDL interventions (Kortering et al., 2008). Katz designed the Three Block Model of Universal Design for Learning and implemented it in two rural and three urban schools. Teachers of the sample reported that the model has had a positive influence on students' self-concept, respect for diverse others, classroom climate, and social and academic engagement (Katz, 2015).

5.3. Differentiated instruction

Differentiated instruction means that "the teacher changes their teaching speed, level or type to match students' needs, learning styles or interest" (Heacox, 2004, p. 3). Harris et al. (2004) identified some fundamental principles of differentiated instruction:

- "A differentiated classroom is flexible". Using multiple methods to promote student learning, such as different materials, various assessment strategies, and flexible learning arrangements.

- "Differentiation of instruction comes from an effective and ongoing assessment of the needs of learners". Student differences are respected, appreciated, and recorded as a basis for planning lessons. So, teachers may have different and ongoing assessment depending on learners' differences and characteristics.

- "All children have appropriate work". Teachers always give every student challenging tasks and interesting work.

- "Teachers and children are collaborators in learning". Students are engaged in decision-making about their learning processes, such as planning, presentation, and

assessment. (Harris et al., 2004, p. 27)

There are differentiated content, activity, and product (Harris et al., 2004). The differentiated content means that students can learn core knowledge and skills in differentiated access. For example, learning a new mathematical concept using objects is especially necessary for students in primary schools. Using a variety of ways to present the key and difficult concepts, such as texts, tape recorders, and videos. The differentiated activity refers to that a learning activity is provided with multiple options at differing levels of difficulty. Students can choose the activity to complete easily, a little difficult, or very difficult. Or teachers can design an activity with multiple options according to students' different interests or offer different amounts of support for an activity. The differentiated products include a portfolio of students' work, a problem-solving project, an exhibition of solutions, a presentation, a cosplay, etc. Students can show their learning outcomes in different ways.

Carol Ann Tomlinson, an outstanding researcher on differentiated instruction, states that teachers can differentiate instruction from four aspects (Tomlinson, 2001):

- *Content: Figuring out what a student needs to learn and which resources will help him do so*

- *Process: Activities that help students make sense of what they learn*

- *Projects: A way for students to "show what they know"*

- *Learning environment: How the classroom 'feels' and how the class works together*

The teachers can tailor their teaching approach to match their student learning styles by using differentiated instruction (D'Amico, 2010). Hence, the teaching and learning could be effective. The researcher found a wide literature on differentiated instruction in Chinese journals. The concept of differentiated instruction conforms to the requirements and development of Chinese inclusive education and the Initiative of Learning in the Regular Classroom. So, the interest in differentiated instruction has

intensified considerably over two decades. For example, Hua wrote two books, the *theory of differentiated instruction* (2001) and the *Teaching Strategy of Differentiated Instruction* (2009). The former is about the knowledge of differentiated instruction, such as "what are students' differences", "what is differentiated instruction", "how to assess student's characteristics", "how to match the students' needs through differentiated instruction" and so on. The latter is about skills and examples of how to use differentiated instruction in teaching. Two significant books about differentiated instruction were translated by Chinese researchers respectively in 2003 and 2004[5]. Such works deeply explore the using of differentiated instruction in Chinese inclusive education.

5.4. Co-teaching

Another important evidence-based teaching strategy in inclusive classes is co-teaching (Jurkowski et al., 2020). Co-teaching refers to two teachers (a regular teacher and a special education teacher) working together to teach students to meet all students' needs in class (Mitchell, 2008; Friend et al., 2010). Friend et al. (2010) emphasized that the strong partnerships between co-teachers and this teaching strategy aren't called co-teaching. For example, two or more student teachers or volunteers in a classroom support student learning. The purpose of co-teaching is to enhance their learning by offering specific assistance to students with special needs to access and participate in the general curriculum. Research reveals that co-teaching is a resource for inclusive schooling (Jurkowski et al., 2020; Scruggs et al., 2007; Shin et al., 2016). Jurkowski et al. (2020) indicated that teachers believed in the benefits of co-teaching, which provides support and collaboration between regular teachers and special education teachers. They summarized 13 categories into three levels: the level of the educational system, the single school, and the teaching dyad, to present the conditions for successful co-

---

[5] Liu (2003) translated the book *How differentiate to instruction in mixed-ability classrooms* by Carol Ann Tomlinson. Yang (2004) translated the book *Differentiating Instruction in the Regular Classroom: How to Reach and Teach All Learners, Grades 3-12* by Diane Heacox.

teaching in inclusive classes. By a meta-synthesis of thirty-two qualitative investigations of co-teaching in inclusive classrooms, Scruggs et al. (2007) reported that generally, administrators, teachers, and students thought co-teaching was beneficial to students with and without special needs in social and academic domains and teachers' professional development, although many conditions of successful co-teaching were needed, such as sufficient planning time, compatibility of co-teachers, training, and appropriate students skills level. Murawski and Swanson (2001) reviewed 89 articles and calculated the effect size, and found that co-teaching can improve students' scores in reading, language, and mathematics and has an active influence on students' peer acceptance, friendship quality, self-concept, and social skills. In sum, previous studies suggested that co-teaching had positive effects on student academic achievements and teachers' professional development (Friend et al., 1993; Scruggs et al., 2007).

Co-teaching has different approaches to co-teaching in class are listed as follows (Friend & Cook. 2010, p. 92):

1. "One teach, one observe", where one teacher teaches while the other observes the student learning activities;

2. "Station teaching", where the students are divided into three stations, teachers instruct the students at two stations, and other students work independently;

3. "Parallel teaching", where each teacher teaches half the class to foster instructional differentiation and increase student participation;

4. "Alternative teaching", where one instructs most students while the other works with a small group for remediation, enrichment, assessment, etc.

5. "Teaming", where two teachers work together to lead instruction by representing opposing views in a debate, illustrating two ways to solve a problem, and so on.

6. "One teach, one assist", where one teacher leads the instruction while the other assists.

The role and responsibilities of two teachers are fluid. They can choose these

approaches flexibly according to the student's needs with and without disabilities.

Pancsofar and Petroff (2016) designed a *Co-teaching Experiences and Attitudes Survey* to measure how frequently co-teachers implement different approaches to co-teaching. They refined and redescribed the co-teaching approaches/models.

Figure 9 Co-teaching approaches
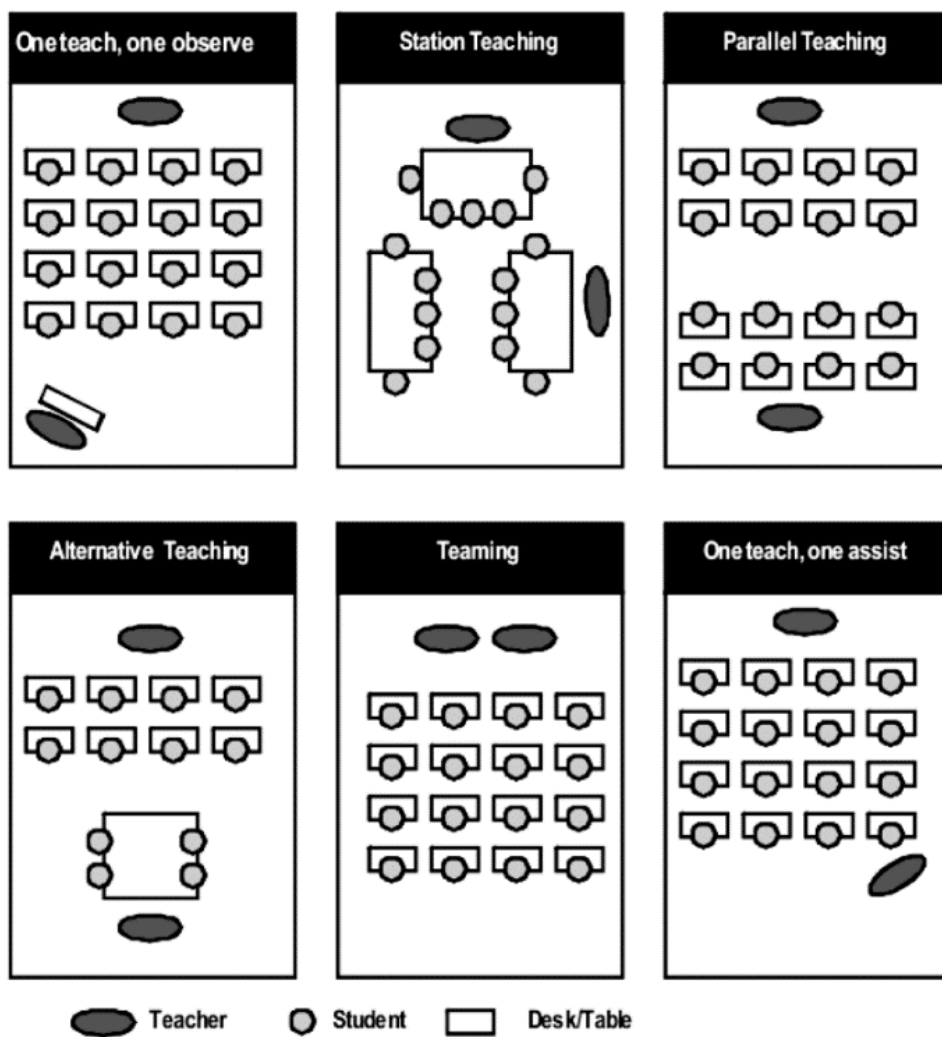
Source: Friend & Bursuck, 2009, p. 92.

Co-teaching approaches in Friend et al. (2010) and descriptive information of co-teaching models in Pancsofar & Petroff (2016):

Table 18 Descriptive information of co-teaching models

Co-teaching	Co-teaching	Description

	approaches	models	
1	*One teach, one observe*	One primary, one passive	One teacher assumes primary responsibility for all classroom duties (e.g., planning, teaching, assessing), and the other teacher assumes a passive role in the classroom. This passive role is viewed as the least collaborative and often viewed similar to a well-trained paraeducator;
2	*One teach, one assist*	One delivers, one supports	One teacher designs and delivers a lesson, and the other teacher provides individualised support to specific students with disabilities. This is an in-class support teacher approach to co-teaching;
3	*Parallel teaching*	Instruct different groups of students at the same time	Co-teachers instruct different groups of students at the same time in the classroom. The instructional content is typically the same and teachers co-plan content but do not necessarily provide instruct in the same way and the groupings may or may not be abilities-based;
4	*Alternative teaching*	One enhances the instruction of the other	One co-teacher enhances instruction through the provision of additional materials (e.g. graphic organisers or simplified text); modified assessments; and/or other materials either during a lesson or pre/post a lesson. This requires a significant level of collaboration but not necessarily equal level of instructional delivery;
5	*Sation teaching*	Share responsibility for planning	Co-teachers share some responsibility for planning, teaching, and assessing the progress of students in the classes they teach together. However, they may not equally provide the primary instruction;
6	*Teaming*	Co-plan and co-instruct	Co-teachers equally engage in the planning, teaching, and assessing the progress of students in the classes they teach together. This may be

	considered the most collaborative co-teaching approach.

Source: Friend et al., 2010, p. 12 and Pancsofar & Petroff, 2016, p. 5.

By analyzing 69 co-teachers' answers to a survey, Pancsofar & Petroff (2016) found that the "one delivers, one supports" model, that is "*one teach, one assist*" approach, is most frequently implemented by co-teachers. While the "co-plan and co-instruct" model, that is "*teaming*" approach, is least frequently used by co-teachers. In addition, the frequency of teachers' implementation of co-teaching is related to their pre-service and in-service training on co-teaching. More professional development opportunities co-teachers have more collaborative approaches to co-teaching they use, including "instruct different groups of students at the same time", "one enhances the instruction of the other", "share responsibility for planning", "co-plan and co-instruct" approaches.

More various research shows that the "*one teach, one assist*" approach is most frequently used by co-teachers. The finding of Scruggs et al. (2007) was in line with the study of Pancsofar and Petroff (2016). Scruggs et al. (2007) found that the dominant co-teaching role was "*one teach, one assist*". The general education teacher typically led the whole class, while the special education teacher usually offered individual assistance to students with special needs or other students in need.

The collaboration involves "teachers partnering in designing and delivering instruction, planning classroom management, and administering students' assessments" (Chitiyo & Brinda, 2018). There are some conditions that make co-teaching effective:

- active support from your school's leadership;

- adequate, regular joint planning time;

- agreement on procedures for handling learners' disruptive or off-task behaviours;

- agreement on lesson objectives and structures, including teaching strategies and assessment methods;

· clear communication with parents about the co-teaching arrangement.

Source: Mitchell, 2008, p. 62-63.

In summary, co-teaching is a widely used teaching strategy in an inclusive setting all over the world due to the widespread movement of inclusive education (Chitiyo & Brinda, 2018).

5.5. Collaborative learning

Success in inclusive education is impossible without collaboration. Collaborate or cooperative learning includes "a range of teaching and learning approaches and strategies to match the needs of students in particular learning contexts" (UNESCO, 2004, p45). Only when students share common responsibility and goals with cooperative skills in a supportive environment does collaborative learning occur. For example, girls may need more opportunities to make presentations, but boys may need more experience in making notes for the groups (Harris et al., 2004). Students need to be good speakers and listeners and learn to value the ideas of others. Some excellent students in a group may always have opportunities to express themselves. However, other students with special educational needs or from minority groups are afraid or have enough time to speak in class. They ultimately have to follow the larger part of the group. Therefore, these students should first be given chances to assert their ideas. Once they have the confidence to speak out, they can be mixed into cooperative groups.

Collaborative learning is an evidence-based teaching strategy. Using this strategy could improve academic achievement and social development, not only for students with special educational needs but also for all learners (Mitchell, 2008). In fact, effective collaborative learning needs time and skills to carry out. It would be effective, depending on the four characteristics: positive interdependence, individual accountability, cooperative skills, face-to-face interaction, and student reflection and goal setting (Putnam, 1998).

Collaborative learning is a common teaching strategy that we can easily see in every

classroom. In general, there are two types of collaborative learning: ability groups and mixed-ability groups. Moreover, the researcher found out that using mixed-ability groups is appropriate and useful for most content areas and only use ability groups when it increases the efficacy of instruction (Slavin, 1996).

5.6. Peer tutoring

Peer tutoring occurs when more able children finish their own work, and then they help other learners to learn. Tutors can help these students to finish their tasks, correct their work, or understand difficult knowledge after class. It is worth noting that tutors help these students with their work, not don't do for them. So, tutors need to be trained under the teachers' guidance before helping others. Teachers must tell the tutors their expectations, and tutors should be clear about what they should do. For instance, tutors should be patient with the learners and communicate using friendly language. Peer tutoring is beneficial for developing cooperative learning between students, especially in a competitive learning culture. Tutors can consolidate what they have learned during the mentoring process and learn from the experience of the learners. The learners may understand better knowledge under the peer's guidance because children have different sights of looking at learning problems.

Peer tutoring is an indispensable teaching strategy in an inclusive classroom. The underlying idea is that children learn a lot from each other (Mitchell, 2008). Often peer tutors can provide individualized support and help for students with special educational needs because they know each other very well. Therefore, peer tutors could "facilitate the inclusion of the student with disabilities in class discussions and activities to the maximum extent possible" (Bond & Castagnera, 2006) by taking notes and providing explanations for them. It should be noted that peer tutoring is just a supplement. Peer tutors cannot be teachers (Mitchell, 2008). So, peer tutors should be trained enough to tutor their peers. As an evidence-based teaching strategy, it improves all students' academic achievement and social interactions (Mitchell, 2008). Peer tutoring is usually used in class discussions and reviewing the lesson (Deng, 2016). After a student

experiences a teacher role acting as a tutor, he or she will become more positive in learning and perform better, and accomplish exemplary achievements (Deng, 2016).

5.7. Individualized teaching

Individualized teaching is a teaching strategy to match the students' differences and characteristics. That means teachers design different teaching plans and programs based on students' interests, needs, physical conditions, etc., and use different teaching resources, different teaching methods, and different evaluation methods so that every student in the class can receive appropriate education and obtain progress as much as possible (Xiao & Wang, 2000, p190).

Individualized instruction is a teaching strategy to match the students' differences and characteristics. That means

> teachers design different teaching plans and programs based on students' interest, needs, physical conditions, etc., and use different teaching resources, different teaching methods, and different evaluation methods so that every student in the class can receive appropriate education and obtain progress as much as possible (Xiao & Wang, 2000, p.190).

Individualized education plan (IEP) is one approach to individualized teaching. It is a "written plan/programme with input from the parents that specifies the student's academic goals and the method to obtain these goals" (UNESCO, 2017, p. 7). Kaplan & Lewis (2013e) argued that IEP is essential to inclusive education, but only paying attention to individual learners may lead to hindering the development of inclusive education. Teachers need to deal with the balance of group and individual learning (Blanco, 2009).

In Western countries, an IEP refers to a legally mandatory written instructional education document formulated for a student with special educational needs to meet their unique educational needs. It explicitly and detailly clarifies the education plan and services that a disabled student should receive and emphasizes the provision of

individualized education and services for the special needs of special children (Deng, 2016). Individualized instruction in group teaching includes individualized teaching objectives, individualized teaching content, and individualized teaching method. According to the differences between students with special educational needs, the teachers can choose different individualized teaching methods, such as the intuitive teaching method, game teaching method, and situational teaching method (Deng, 2016).

5.8. Structured teaching

In 2015, Division of Training and Education of Autistic and related Communication-handicapped Children (TEACCH) in North Carolina, USA developed a model of structured teaching which was used to serve individuals with autism spectrum discorders (ASD). This model "emphasizes an extensive understanding of autism, partnering with families, individualized assessment when developing and implementing strategies, and the development of skills across curriculum areas (with attention to the development of communication and social skills)" (Hume, 2015, p.1). The foundation of this teaching strategy is an understanding of how autism inpacts the thinking, learning, and behavior of a child with ASD. This teaching strategy can enhance engagement and independence of a child with ASD by providing predictable and meaningful routines (Hume, 2015). This model comprises five elements of structured teaching: visual structure of materials, routines and visual strategies, work systems, and schedules and physical structure. All of these elements stresses predictability and flexible routines in the classroom setting.

Hattie (2009) argued that structured teaching as one of the most effective strategies for improving student academic achievement by synthesis of 800+ meta-analyses on student achievement. Structured teaching refers to creat a specific and clear learning environment for children with special educational needs, using simple schedules to help them establish routines, using special visual arrangements to set up suitable working processes, and using vision as the main teaching method to enable children to have a better understanding of the environment and things. This is a teaching strategy that

reduces students'confusion about the environment, thereby reducing their behavioral problems (Deng, 2016). It is an effective and widespread teaching strategy for children with autism, communication disorders, and moderate to severe intellectual disabilities. The components of structured teaching encompass the structured environment, visual cues, daily schedules, student work process, and daily routines (Deng, 2016).

5.9. Assessment strategies

Assessment is an indispensable part of teaching and instruction with the purpose of enhancing every student's learning by adapting teaching to accommodate every student. It involves observing and collecting information during the whole student learning process. It is wrong to assess students' processes just once a year. Teachers are encouraged to use a variety of inclusive assessment, such as formative, continuous, authentic, and summative forms of assessment, many times during a year. Formative assessment is a continuous assessment to adapt instruction, aiming at improving student learning by collecting different evidence of learning processes and outcomes (William & Thompson, 2006).

Continuous assessment refers to "making observations continuously to identify what a child knows, what he or she understands, and what he or she can do" (Harris et al., 2004, p. 40). In order to record their progress and problems truthfully, teachers can make a continuous assessment several times during the year. Continuous assessment is beneficial for both teachers and students. For teachers, you can know which students need more learning opportunities of certain content and help them further. As students, they can know their learning performance and problems from the continuous feedback and work hard to make progress.

Authentic assessment is a "contextually relevant" (Kaplan & Lewis, 2013e, p18) form of assessment. By reflecting on teachers' instruction and student learning, authentic assessment brings new thinking and actions to address the problems (Darling-Hammond & Snyder, 2000). Continuous assessment leads to continuous school improvement. Therefore, it is significant to promote inclusive education (UNESCO,

2003).

Many learning indicators are taken into account to assess: learners' social and emotional well-being, learning styles and preferences, capacities for memory, attention and self-regulation, daily performance and work, and test scores (Kaplan & Lewis, 2013e, p18)

In addition, there are a number of assessment tools that teachers can use to assess: observations, portfolios (Harris et al., 2004, p. 263), checklists of knowledge, skills, and behaviors, tests, self-assessment, and reflective journals (ibid., p. 41). The focus of inclusive assessment is using flexible assessment tools to follow up on student learning. Furthermore, students are allowed to demonstrate their achievements in any way which are consistent with their assessment. Students are allowed to self-assess and reflect on their work. They can make self-assessments by writing their abilities or progress in their journals or discussing with other students, teachers, or parents.

Considering the diverse needs of students, assessment can be adapted flexibly in an inclusive school. There are two good types of assessments: informal assessments and self-assessments. Informal assessments provide opportunities to recognize student achievement. They are both useful and practical as they typically involve ordinary activities and materials used on a daily basis in the classroom (Westwood, 2007). Informal assessments have the advantage that they involve goals that are achievable by all students (Winter & O' Raw, 2010). The portfolios of student work have become a popular way for teachers to track student progress and collect evidence of learning.

The Department of Education and Science of Ireland (DES) (2007) put forward the four-step process for self-assessments:

    1. Together, the teacher and student establish clear and appropriate goals and targets for teaching and learning.

    2. Students are shown how to evaluate and monitor their progress.

    3. Students begin to evaluate their progress and record the results; the evaluation criteria and methods for recording results are discussed with the teacher.

4. Students complete their records of progress and discuss these periodically with the teacher (DES, 2007, p.115).

Self-assessments also provide opportunities to recognize student achievement. At the same time, it encourages the students' motivation for learning in the process of assessments.

Chapter 3: Methodology

This chapter presents the identification and justification of methodology, including research methods, research design, ethical consideration, context, and introduction of quantitative and qualitative phases. This study used a mixed methods approach. First, a brief introduction to mixed methods research and the reasons for choosing this research method is presented. Then, the researcher explained the research design by demonstrating a diagram. Next, the ethical issues are introduced, and how to address these issues in this thesis. And the researcher will present the context of this study. Finally, the participants, instruments, procedure, and data analysis of the two phases will be described.

1. Mixed methods research

1.1. Introduction

Mixed methods research has been perceived as "the third paradigm" (Johnson & Onwuegbuzie, 2004, p.15) and used in distinct disciplines, such as social, behavioral, and health sciences (Creswell & Plano Clark, 2018). In "the third paradigm", researchers can select unrestrictedly one or more distinct research approaches to undertake research (Creswell & Plano Clark, 2011; Bowen et al., 2017). With the strengths of both qualitative and quantitative research, more researchers employ mixed methods in distinct disciplines, such as social, behavioral, and health sciences (Creswell & Plano Clark, 2011, 2018; Bowen et al., 2017; Doyle et al., 2009).

The use of quantitative or qualitative approaches is inadequate to obtain holistic information because research problems and educational phenomena are complex. Using mixed methods can help researchers address research problems with full consideration of contextual factors (Johnson & Onwuegbuzie, 2004). Due to the use of mixed methods in recent decades, a large amount of collaborative research from different research areas has emerged (Bernard, 2014). In addition, the combination of quantitative and qualitative research is helpful in expanding a deep understanding of research problems (Hoover & Krishnamurti, 2010) because it provides dialectical

evidence and explanation by eliminating a single approach's drawbacks (Albert et al., 2009; Bryman, 2006; Tashakkori & Creswell, 2008).

1.2. Foundation of mixed methods research

The mixed methods approach has become a legitimate form of inquiry after five stages of development: formative period, paradigm debate period, early procedural development period, expanded procedural development period, reflection and refinement period. Creswell & Plano Clark (2018) summarized these five stages and major contributions in *Table 19*.

Table 19 Stage of development and major contributions to the development of mixed *methods research*

Stage of development	Major contributions
Formative period (before 1980)	Argue for use of the multiple quantitative methods
	Used both quantitative and qualitative methods
	Argued for using both quantitative and qualitative methods
Paradigm debate period (the 1970s to mid-1990s)	Discussed stances within the debate (purists, situationists, and pragmatists)
	Discussed ways to reconcile the two traditions
	Suggested that we move past the paradigm debate
Early procedural development period (the late 1980s through 1990s)	Identified reasons and procedures for combining quantitative and qualitative research
	Identified a typology for types of mixed methods designs
	Presented a topic overview and procedures for mixed methods research
Expanded procedural development period (ongoing since 2003)	Provided a comprehensive treatment of the current state of the field
	Positioned mixed methods research as a new methodology and advocated for its acceptance through funding and publications
	Provided comprehensive guides for designing and conducting mixed methods research studies

	Applied mixed methods within specific disciplinary contexts (e.g., health sciences) and intersected with other research approaches (e.g., action research, culturally sensitive program evaluation, and systemic reviews)
Reflection and refinement period (ongoing since 2003)	Identified important issues and controversies in mixed methods
	Mapped the mixed methods literature into overarching frameworks
	Critiqued the marginalized positions of qualitative research within some mixed methods
	Critiqued the assumptions and discourse of mixed methods research
	Presented new and refined paradigms for mixed methods
	Identify major developments in the field

Source: Adapted from Creswell & Plano Clark (2018, p. 73).

Since the *Handbook of Mixed Methods in Social & Behavioral Research* (Tashakkori & Teddlie, 2003) was published in 2003, the development of mixed methods research has entered a new era. In this era, the mixed methods research from different disciplines in books and journals continuously increased around the world (Creswell & Plano Clark, 2018). The mixed methods approach has become a formal form of inquiry since then. Unquestionably, there still emerged significant controversies and critiques in regard to mixed methods. For example, Creswell (2011) summarized some key controversies and questions being raised in mixed methods research. Along with these issues about the foundations for mixed methods research, scientific development and new philosophies of it emerged-transformative worldview (Mertens, 2003, 2007) and dialectic pluralism (Johnson, 2012).

All research has a philosophical foundation, with no exception for mixed methods research (Creswell & Plano Clark, 2018). The researchers need to consider how philosophical assumptions support mixed methods research. The philosophical assumptions in mixed methods research, also called worldviews ("a basic set of beliefs

that guide action"- Guba, 1990, p. 17) or paradigm (Lincoln et al., 2011), are some fundamental assumptions and beliefs to direct the study (Guba & Lincoln, 2005). Creswell (2014) outlined four essential worldviews in mixed methods research, as shown in Table 20. Researchers can select one worldview or combination of multiple worldviews in a mixed methods study.

Table 20 Four worldviews used in mixed methods research

Types of worldviews	Main idea
Postpositivist worldview	Determination
	Reductionism
	Empirical observation
	Theory verification
Constructivist worldview	Understanding
	Multiple participant meanings
	Social and historical construction
	Theory generation
Transformative worldview	Political and activist
	Empowerment, human rights, social justice oriented
	Collaborative
	Change, emancipatory oriented
Pragmatist worldview	Consequences of actions
	Problem centered
	Pluralistic
	Real-world practice oriented

Source: Creswell, 2014, p. 36.

Postpositivism is related to quantitative research. Postpositivists examine the research problems by careful observation and scientifical measurement. The purpose is to deterministically measure to what extent causes influence outcomes. Reductionism means that postpositivists "reduce the ideas into a small, discrete set to test" (Creswell, 2014, p. 36) in a study. Therefore, the most important component of a postpositivist worldview is numeric data collection. And postpositivism always starts with a theory

and uses the theory to guide the study. The results of the study are used to test the theory (Slife & Williams, 1995).

On the contrary, the constructivist worldview is more often related to qualitative research. Constructivists think that individuals develop subjective and multiple understandings or meanings of the phenomena in the world and their experiences (Lincoln et al., 2011; Mertens, 2010). Additionally, they believe that individuals live with historical and cultural norms. So, these subjective understandings are constructed socially and historically. Constructivists pay attention to the participants' perspectives in specific contexts to inductively generate a theory (model) or pattern, or interpretation.

Transformative worldviews emerged during the 1908s and 1990s on the background of postpositivist assumptions that didn't consider the marginalized community and individuals, such as women, racial and ethnic minorities, and people with disabilities (Mertens, 2003, 2007, 2009; Creswell, 2013). The basic idea of the worldview is that "knowledge is not neutral" (Creswell, 2013, p. 25). Knowledge is constructed in a way reflecting the power and social relationships within society (Mertens, 2003; Creswell & Plano Clark, 2018). Thus, a transformative worldview emphasizes social justice and cares about specific groups.

Another worldview is pragmatism which is perceived as one of the best worldviews for mixed methods research. Pragmatism is "a philosophy that says to use what works in particular situations and contexts" (Johnson, 2014, p. 648). Tashakkori and Teddlie (2003) summed up more than 13 researchers who support this worldview for the mixed methods approach. Accordingly, pragmatism usually connects with mixed methods research. Pragmatists think that the most important aspect of research is the research problems being addressed (Rossman & Wilson, 1995) by using multiple methods (Tashakkori & Teddlie, 2003) and collecting both objective and subjective knowledge (Creswell & Plano Clark, 2018).

In this study, the researcher used the perspective of pragmatism to guide the research design within the two phases, including designing instruments, analyzing data, and

assessing and interpreting results. Creswell & Plano Clark (2018) and Creswell (2013) summarized the elements of pragmatism worldviews and implications for practice. And they indicated that this worldview differed from postpositivism and constructivism in ontology, epistemology, axiology, methodology, and rhetoric, as shown in Table 21.

Table 21 Elements of pragmatism worldviews and implications for practice

Elements	Implications for practice
Philosophical assumptions	Pragmatism
Ontology (What is the nature of reality?)	Singular and multiple realities (e.g., researchers test hypotheses and provide multiple perspectives)
Epistemology (What is the relationship between the researcher and that being researched?)	Practicality (e.g., researchers collect data by "what works" to address the research question)
Axiology (i.e., What is the role of values?)	Multiple stances (e.g., researchers include both biased and unbiased perspectives)
Methodology (i.e., What is the process of research?)	Combining (e.g., researchers collect both quantitative and qualitative data and mix them)
Rhetoric (i.e., What is the language of research?)	Formal or informal (e.g., researchers may employ both formal and informal styles of writing)

Sources: Creswell & Plano Clark, 2018, p. 89; Creswell, 2013, p. 36.

Mixed methods research has its components to design a mixed methods study. The Handbook of Mixed Methods in the Social & Behavior Sciences (Tashakkori & Teddlie, 2003) is the first book to present a comprehensive introduction on mix methods research. Currently, some journals welcome and support the use of this form of inquiry, such as the Journal of Mixed Methods Research, Quality and Quantity. Creswell (2009) developed a checklist of questions for designing a mixed methods study in Table 22. It includes the definition of mixed methods research, the type of strategy being applied, a visual model and procedures of data collection and analysis, and the narrative structure of the report. The researcher plans the study by following and answering some questions.

Table 22 A checklist of questions for designing a mixed methods procedure

	Questions
✓	Is a basic definition of mixed methods research provided?
✓	Is a reason given for using both quantitative and qualitative approaches (or data)?
✓	Does the reader have a sense for the potential use of a mixed methods design?
✓	Are the criteria identified for choosing a mixed methods strategy?
✓	Is the strategy identified, and are its criteria for selection given?
✓	Is a visual model presented that illustrates the research strategy?
✓	Is the proper notation used in presenting the visual model?
✓	Are procedures of data collection and analysis mentioned as they relate to the model?
✓	Are the sampling strategies for both quantitative and qualitative data collection mentioned? Do they relate to the strategy?
✓	Are specific data analysis procedures indicated? Do they relate to the strategy?
✓	Are the procedures for validating both the quantitative and qualitative data discussed?
✓	Is the narrative structure mentioned, and does it relate to the type of mixed methods strategy being used?

Source: Creswell, 2009, p.190.

1.3. What is mixed methods research?

There are many definitions for mixed methods that stress different elements of methods, research processes, research purpose, and philosophy (Creswell & Plano Clark, 2018). Johnson et al. (2007) gave a composite definition after analysis of 19 different definitions which were provided by 21 highly published mixed methods researchers. They stated,

Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the purposes of breadth and depth of understanding and corroboration. (p. 123)

It seems that they treat the mixed methods as a methodology from the viewpoints, data collection, analysis to inferences. The whole research process included the combination of qualitative and quantitative research with the purposes of breadth and depth of understanding and corroboration.

Greene (2007) defined mixed methods as "multiple ways of seeing and hearing, multiple ways of making sense of the social world, and multiple standpoints on what is important and to be valued and cherished" (p. 20). He provided a broad definition for mixed methods as not only a research method.

Mixed methods research involves the mixing of quantitative and qualitative methods (Johnson & Christensen, 2014). Mixed methods research is an approach to "inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks" (Creswell, 2014, p. 32).

Creswell & Plano Clark (2018) defined that mixed methods research incorporated a method, research design, and philosophy orientation. They presented the core characteristics of mixed methods research. In mixed methods research, the researcher

collects and analyzes both qualitative and quantitative data rigorously in response to research questions and hypotheses, integrates (or mixes or combines) the two forms of data and their results, organizes these procedures into specific research designs that provide the logic and procedures for conducting the study, and frames these procedures within theory and philosophy (p. 40).

1.4. Why does mixed methods best address the research questions?

Mixed methods best fits the research in which one data source may be insufficient (Creswell & Plano Clark, 2018). For example, results need to be explained more, exploratory findings need to be generalized, and so on. Because qualitative understanding is from a few individuals' perspectives in depth, while quantitative understanding comes from many people's views concerning the variables. That is, qualitative research and quantitative research provide different information about participants with different methods, and each has its limitations. When researchers use qualitative research to study a few individuals' perspectives, the results are difficult to enhance external generalizability. When researchers use quantitative research to collect many people's views, they lose the understanding of one individual. Therefore, the combination of quantitative and qualitative methods can obtain more complete results for research questions.

In this study, the researcher employed an explanatory sequential design. Due to the complexity of the research topic "inclusive teaching strategies" during the inclusive process, the researcher may obtain an incomplete understanding of the research topic if only collect quantitative or qualitative data. The researcher used mixed methods to examine inclusive teaching strategies quantitatively and qualitatively from teachers' perspectives and students' perspectives by using various research instruments. In the quantitative phase, the researcher designed a teacher questionnaire and a student questionnaire. After quantitative analysis, the researcher found some findings from the teachers' and students' investigation, which needed to explore more. So, another research instrument- the teacher interview was followed up with the purpose of explaining the results from the quantitative approach.

2. Research design

The research design consists of procedures for collecting, analyzing, interpreting, and reporting data in research studies (Creswell & Plano Clark, 2018). It is helpful to guide the research during the whole study, from selecting suitable methods to reporting and interpreting the data according to the research logic. Quantitative research is conducted

to collect a great deal of detailed data from research objects. Qualitative research, which measures the thinking or viewpoint of the informant through numerical data, is to obtain an in-depth perspective and insights into research questions. Quantitative study and qualitative study have their advantages and disadvantages. Both are useful and effective for understanding the research topics. As Cohen et al. (2007) argued, quantitative research over-emphasises the individuals' common views and neglects the actual individual perspectives, while qualitative research over-emphasised the individual views and neglects, in part, the structural forces that shape the individuals' views and actions. However, as the researcher mentioned above, mixed methods research uses the quantitative method and qualitative method in a study, considering the advantages of both.

This study used an explanatory sequential mixed methods design with two different phases (Ivankova et al.,2006; Creswell, 2009). Because there is a need to explain quantitative results from the teacher questionnaires and student questionnaire in more detail, especially in terms of teachers' perspectives. There are three core mixed methods designs. The explanatory sequential mixed methods is a popular approach (Ivankova et al., 2006). The quantitative approach was carried out first, and the qualitative approach was conducted second in the sequence. In this study, the quantitative data helped examine the current situation of the use of inclusive teaching strategies in Chinese primary schools. Then, a qualitative approach was used to explain the results in the first phase. The quantitative and qualitative methods complement each other, and the integration of the two approaches would present a more comprehensive and deep understanding of research problems (Tashakkori & Teddlie, 2003; Creswell & Plano Clark, 2018). A visual model for mixed methods explanatory sequential design procedures (Figure 1) was developed to help in collecting and analyzing qualitative and quantitative data, respectively.

Figure 10 Visual model for mixed methods explanatory sequential design procedures

Phase	**Procedure**	**Product**
QUAN Data Collection	Teacher questionnaire (N=200) Student questionnaire (N=730)	Numeric data
QUAN Data Analysis	Descriptive statistics in SPSS	Frequencies, means, Standard Deviations, T-test, ANOVA test, Cronbach's Alpha
Sample Selection: Interview Outline Development	Randomly selecting 12 participants (N=24) from two same schools in the first phase	Sample (N=24) Interview outline
QUAL Data Collection	Individual in-depth face-to-face interviews with participants	Text data (interview transcripts)
QUAL Data Analysis	Coding and thematic analysis NVivo qualitative software	Codes and themes Visual model of theory
Integration of the Quantitative and Qualitative Results	Interpretation and explanation of the quantitative and qualitative results	Discussion Implications Future research

Source: The researcher elaborated.

3. Ethical consideration

Ethical concerns are necessary to present in scientific research. This study followed the basic principles established by the Code of good practices in research at the Universitat Autònoma de Barcelona (UAB). The basic principles are honesty and responsibility (Universitat Autònoma de Barcelona, 2020, p.6-8).

Honesty: Be honest in all research work, consisting of the initial formulation of the research question, methodological design, data analysis, publication of results, acknowledgment of contributions, and arrangements for review and assessments. This principle requires rigor and appropriate presentation of conflicts of interest in a study.

Rigor means that the research is conducted in an accurate process of discovery and interpretation. The results emerge from a careful process of analysis before publication and if any error is detected after publication, make a public rectification as soon as possible. In addition, researchers must pay attention to possible conflicts of interest. Conflicts of interest should be avoided or else made public and addressed appropriately in accordance with the related publication policies because certain interests might compromise the validity of the investigation.

Responsibility: The study is carried out in conformity with the principles expressed in UAB Statutes and with the terms and conditions set by the funding entity. Conditions on publication, authorship, and intellectual property are met.

In two phases, all participants were informed that they had no obligation to participate and were free to refuse the investigation or interview. All names of schools and participants are not revealed. Owing to data collection through online questionnaires, participant consent to participate was gained without any written documents in the first quantitative phases. But the researcher obtained principals' permission to access the three schools before conducting the investigation, see Appendix A. The online teacher questionnaire link and research information statement together were sent to the teacher work groups. The online student questionnaire link and research information statement

together were sent to the parents' groups. A clear research information statement was provided to make sure that participants were able to make an informed decision about whether or not to take part in a research project. If the participants agree to participate in the study, they can click the link. If they don't agree to participate, they can ignore the link. Moreover, in the first part of the teacher and student questionnaires, both have a statement about the research objectives and confidentiality of their responses. They were assured of the anonymity of their responses through the use of pseudonyms to report the results and were guaranteed the confidentiality of collecting data.

In the qualitative phases, the participants signed informed consent before carrying out the interview. Consent is an official document including clear information about the aims and implications of the research and is obtained from the person or family being investigated after knowing about the research information. Informed consent is shown in Appendix B. The participants gave their consent to the researcher to use their data for research purposes. The interview was audio-recorded with their agreement. In order to ensure the anonymity of their responses, the records were encoded as names of participants to be digitally encoded to analyze the data. And the researcher used pseudonyms to report the results.

4. Context

To ensure each individual has an equal probability of being selected and the sample can represent the larger population, random sampling was recommended by Creswell (2009). So, simple random sampling was used. We randomly selected three primary schools (marked T, W, and H schools, respectively) in one district of Shenzhen City, located in the south of China. Participants (teachers and students) are from these three regular primary schools. There are 11 primary schools in total in this district. The W school is the most popular primary school in this district. The H school is the only primary school where there is a special class. All school-aged children with moderate to severe disabilities can receive education in this class. Compared to the other two schools, the T school is at a medium level in education quality. Every school has

133

students with special educational needs. Given that the sample schools were randomly selected and have various types of schools, they are likely to represent the current status of inclusive teaching strategies in Chinese regular primary schools. The other criterion is that school leaders have strong motivation and desire to promote inclusive education through inclusive practices.

The total number of teachers and students in three schools is as follows in Table 23.

Table 23 Total number of teachers and teachers in three schools

School name	Number of teachers	Number of students
T primary school	78	1227
H primary school	85	1290
W primary school	93	1068
In total	256	3585

As shown in Figure 11, it presents the types of students with special educational needs that participants mentioned in the teacher questionnaire.

Figure 11 Types of students with special educational needs
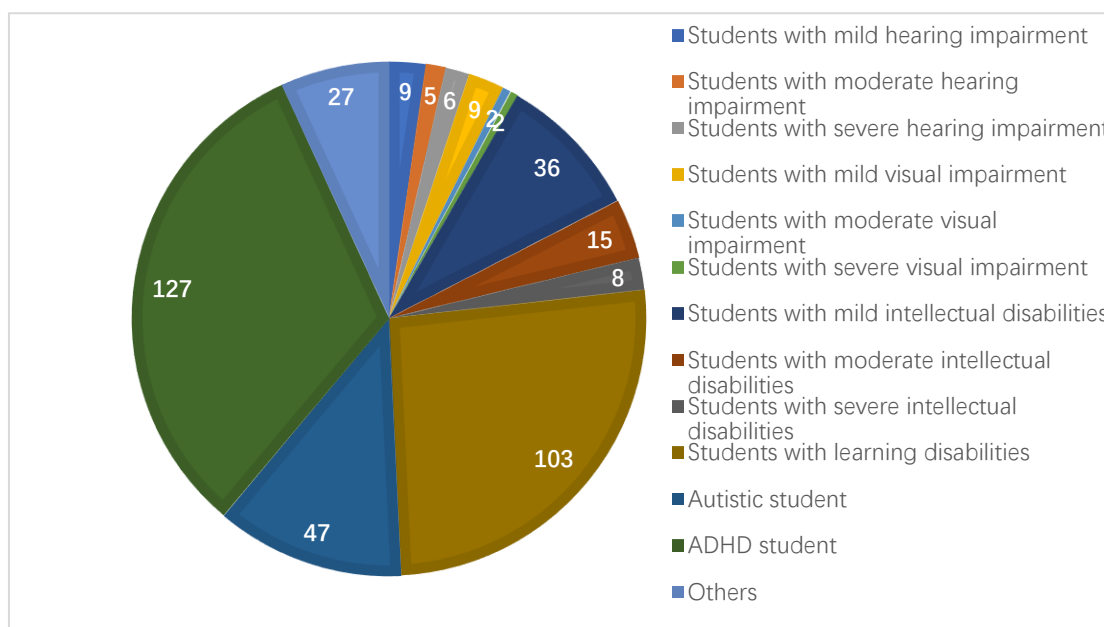
Note. "Others" refer to other types of students with special educational needs, such as "sensory integration dysfunction", "depression disorder", "down syndrome", "attention deficit hyperactivity disorder (ADHD)", "other psychological disorders", "social

disorder". And 4 teachers filled in "none". This means that these teachers think there is no students with special educational needs.

A brief introduction of the three schools is as follows.

T primary school

T school, located in the east of Shenzhen City, is a six-year public primary school. It was founded in September 1998 and has transformed the standardization of education to a high-quality level. There are 26 classes, nearly 1227 students, and over 78 faculty members. It has successively won many titles, such as Guangdong First-Class School, National Youth Featured Football School, National Environmental Education Demonstration School, National Top 100 schools in Environmental Education, and International Ecological School.

The school is fully equipped with more than 30 functional rooms, including future classrooms, maker classrooms, video conference rooms, scientific inquiry rooms, special education resource rooms, psychological consultation rooms, parent volunteer rooms, music rooms, dance rooms, art rooms, comprehensive electronic classrooms, etc. The school network covers all classrooms and offices. Each classroom is equipped with multimedia platforms such as a computer, touch all-in-ones, and power amplifiers. Every teacher has a computer, and every 5 students have a computer. Complete teaching facilities and equipment provide teachers and students with good learning, working, living, and a growth environment.

H Primary School

H Primary School is located in the center of the district, in the east of Shenzhen City. The school currently has 27 teaching classes with 1,290 students. There are 85 faculty members and 55 senior teachers in primary schools. In recent years, teachers and students of the school have participated in various competitions at all levels and have achieved fruitful results.

The school has compiled the "Teacher Professional Development and Growth Manual"

to guide the direction and goals of teacher professional development so as to create a team of high-quality teachers with noble morality and excellent professionalism. Through continuous training, regular learning, effective incentives, and moderate praise, young teachers have gained process rapidly, laying a solid foundation for ensuring the balanced development of various disciplines in the school. All the teachers are working hard to promote H school to become increasingly prominent characteristics in the following aspects: moral education, physical education, science, and technology education, art education, inclusive education, etc. Moral education, sports, and technology are even more famous in our city.

W Primary School

W Primary School, located in the same city, was founded in September 2001 with the goal of "creating the Brand School in the east of the city". There are 32 ordinary classrooms and 53 auxiliary teaching rooms such as multimedia rooms, dance studios, music rooms, science and technology activities rooms, computer rooms, language rooms, etc. Each classroom is equipped with advanced multimedia teaching platforms, including LCD projectors, large screens, computers, DVDs, and so on. In total, there are 938 students in 26 classes from the first to sixth grade. The school has a young, professional, high-potential, and high-quality teacher team. The total number of faculty members is 76, of which 72 are full-time teachers, with an average age of 33.5 years old, 96% of whom have a bachelor's degree or above. The school implements the "21-character" optimized teaching method and the "four-in-one" primary school English optimization teaching model. When students graduate, their comprehensive English ability may reach or exceed the junior school level under the current education system. The school has distinctive English characteristics and promotes the comprehensive development of students. The school has been widely praised by superior leaders from all walks of life and students' parents. It is a well-known brand school in the province.

5. Quantitative Phase

5.1. Participants

A total of 200 teachers (78.13%), which include 37 male (18.5%), and 163 female teachers (81.5%) in three primary schools, responded to the questionnaire. 730 students (20.36%) participated in this study. The specific demographic information of teacher participants is described in Table 24.

Table 24 Demographic information of teachers in the questionnaire

	Items	Frequency	Percent
Gender	Male	37	18.5
	Female	163	81.5
Age	20-30 years	62	31
	31-40 years	48	24
	41-50 years	57	28.5
	>50 years	33	16.5
Teaching years	<1 year	12	6
	1-3 years	34	17
	4-6 years	23	11.5
	>=7 years	131	65.5
Professional title[6]	None	26	13
	Third level	6	3
	Second level	39	19.5
	First level	104	52
	Top level	25	12.5
Teaching grades	First grade	34	17
	Second grade	28	14
	Third grade	35	17.5
	Fourth grade	31	15.5
	Fifth grade	37	18.5
	Sixth grade	35	17.5

---

[6] In China, according to the primary and secondary teachers professional title system in 2015, there are five levels of teachers' professional title. There are teachers with third level, teachers with second level, teachers with first level, associate senior teachers, and senior teachers. In this study, the latter two types of teachers are unified into one category: top level.

	Chinese	63	31.5
	Mathematics	36	18
	English	41	20.5
	Science	5	2.5
Teaching subject	Physical education	17	8.5
	Morality and life/society	4	2
	Music	10	5
	Art	12	6
	Information and technology	8	4
	Others [a]	4	2
	Associate Degree	6	3
Education background	Bachelor's degree	175	87.5
	Gain's degree	19	9.5
	Principle	0	0
	School leader	14	7
	Coordinator	19	9.5
Title	Tutor	61	30.5
	Teacher	99	49.5
	Others [b]	7	3.5

Note. [a] "Others" refer to other subjects or disciplines, such as "Special education" and "Comprehensive practice courses". [b] "Others" refer to other titles as "Substitute teacher".

Table 25 indicates the demographic information for students in the student questionnaire

Table 25 Demographic information of students in the questionnaire

	Item	School name: Frequency (%)			Total
		T school(n=227)	W school(n=373)	H school(n=130)	
Gender	Boy	133(58.59%)	184(49.33%)	67(51.54%)	384(52.60%)
	Girl	94(41.41%)	189(50.67%)	63(48.46%)	346(47.40%)

	Grade 4	3(1.32%)	132(35.39%)	22(16.92%)	157(21.51%)
Grades	Grade 5	140(61.67%)	171(45.84%)	71(54.62%)	382(52.33%)
	Grade 6	84(37.00%)	70(18.77%)	37(28.46%)	191(26.16%)

5.2. Instruments: A teacher questionnaire

In the first phase, data collection was conducted through two questionnaires. Wiersma and Jurs (2009) have suggested that survey research is a method that is applicable to and appropriate for many educational research situations. According to the research objectives, we designed two instruments to collect authentic data in the quantitative phase: a teacher questionnaire and a student questionnaire. After finishing designing the instruments, both instruments were translated into Chinese (the native language in China and used at the schools).

Figure 12 Research instruments in the first phase
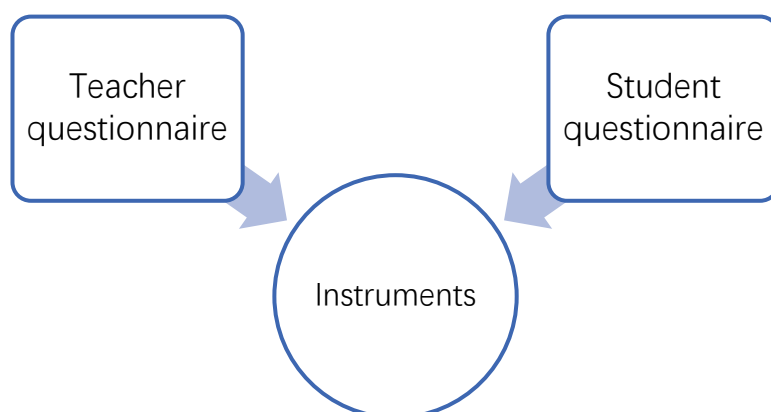
Source: The researcher elaborated.

To construct solid content validity, the questionnaire was developed in three following steps before the validation process. First, search relevant literature (academic papers, articles, reports, and so on) with key words "inclusive education", "inclusive school",

"inclusive practice", "teaching strategies", "teacher education", "teacher training" through electronic databases (e.g., ERIC, Springer).

A vast amount of literature was found to generate questionnaire items. As shown in Appendix C, this is the first version of the teacher questionnaire. The questionnaire

consists of brief information, a Likert scale, sorting questions, and some open questions. The brief information includes gender, age, education degree, years to be a teacher, teaching subject, to be or not a school manager or Banzhuren (tutor), and teaching training on inclusion. The sorting question is about the effectiveness of inclusive teaching strategies. Open questions involve the use of other inclusive teaching strategies, support that teachers need, and suggestions to promote inclusive education. These 42 items are extracted from other questionnaires about inclusive education or instruction strategies in an inclusive classroom. The sources come from Booth & Ainscow, 2002; Deng, 2008; Kassie, 2013; Kielblock,2018; Kuyini et al., 2015; Sharma et al., 2011.

Finally, a drafted questionnaire was developed for expert review. Taking into consideration of situation of this study, ten professors in special and inclusive education from Spanish and Chinese universities were invited to revise the items according to the criteria-adequate and important. The validation results are shown in Appendix D. After discussing with the supervisors, the researcher changed the items of dimension "values and attitudes" and dimension "management and environment" based on the feedback from the professors. The new questionnaire is in Appendix E.

The revised teacher questionnaire also combined closed questions and open-ended questions. The main purpose of the questionnaire in primary schools is to gain basic information on inclusive teaching strategies in sample schools. At the beginning of the questionnaires, it had an introductory statement giving its purpose, significance, and assurance of confidentiality with an expectation to fill in truthfully. The second section of the questionnaire contained questions including responders' gender, age, teaching years, education background, teaching subjects, teaching grades, academic position, title, types of students with special educational needs, and yes or no questions regarding the conception of inclusive education, inclusive education training, resource classroom and resource teachers (items 1-14). In the third section, both are Likert scale with a four-point from 1 (definitely agree), 2(agree), 3(disagree), and 4 (definitely disagree). The Likert scale has 48 items with three dimensions: values and attitudes, management

and environment, and teaching and instruction in Figure 13.

Figure 13 Three dimensions of the questionnaire
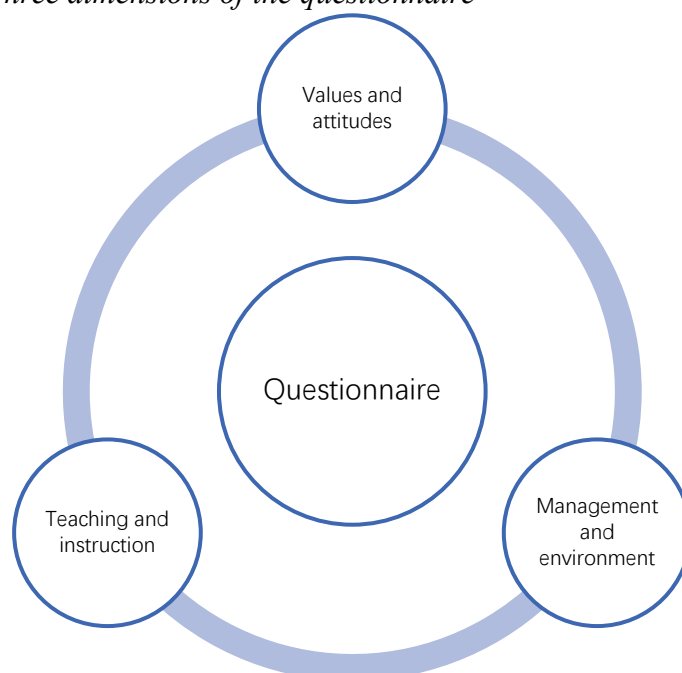
Source: The researcher elaborated.

The items and categories of each dimension in the teacher questionnaire are followed in Table 26. The items of dimension come from the Index for Inclusion (Booth & Ainscow, 2002). The items of dimension "teaching and instruction" were generated after reviewing and referring to other questionnaires about the teaching and instruction approach, strategies, method, and skills in inclusive classrooms. The researcher refined and worded carefully the items matching the study purpose. After several meetings on the appropriateness and expression of the items with the professor, the researcher changed the items' wording and formatting according to the feedback. Finally, there are 20 items in this dimension.

Table 26 The categories and items of each dimension in the teacher questionnaire

Dimension	Categories	Items
Values and attitudes	Respect and collaboration	A1-7
	Expectation and value	A8-13
Management and support	Collaboration and support	B1-6
	Classroom management	B7-15

	Adapted curriculum	C1-2
	Universal Design for Learning	C3-4, 6, 8
	Feasible management	C5
	Differentiate instruction	C7
Teaching and instruction	Co-teaching	C9
	Collaborative learning	C10
	Peer tutoring	C11
	Individualized teaching	C12, 13, 14
	Structured teaching	C15, 16
	Assessments strategies	C17,18, 19, 20

5.2.1. Reliability

In order to make the questionnaire more precise and accurate, we need to explore the reliability of the questionnaire. Cronbach's Alpha is to measure internal consistency. After the teachers complete the questionnaire, the researcher uses the software SPSS to calculate Cronbach's Alpha for the internal consistency of the teacher questionnaire. Cronbach's Alpha of different dimensions is as follows:

Table 27 Reliability of the teacher questionnaire

	Values and attitudes	Management and environment	Teaching and instruction	Total scale
Cronbach's Alpha	0.964	0.971	0.988	0.990

Note. This table shows the reliability coefficients for the questionnaire total and each individual dimension. Cronbach's alphas are all in the satisfactory range.

The value of Cronbach's Alpha is 0.70 or more, so the questionnaire is reliable. In this study, Cronbach's Alpha of every dimension and overall is more than 0.90, as shown in Table 27. That implies this questionnaire has a high degree of internal consistency.

5.2.2. Validity

The data was subjected to confirmatory factor analysis (CFA), and the results showed that $\chi2/df$ was 4.399, CFI was 0.816, RMSEA was 0.131, and SRMR was 0.064. The

standard load factors, CR, and AVE values corresponding to the three dimensions are shown in Table 28 below. AVE values are all greater than 0.5, and CR values are all greater than 0.7, indicating that this questionnaire has good convergent validity.

Table 28 Factor loading of the items, CR and AVE

Dimension	Item No.	Factor loading	CR	AVE
Values and attitudes	A2	0.835	0.966	0.705
	A11	0.860		
	A12	0.894		
	A13	0.899		
	A3	0.901		
	A4	0.894		
	A5	0.857		
	A6	0.789		
	A7	0.786		
	A8	0.746		
	A9	0.849		
	A10	0.775		
Management and environment	B26	0.815	0.964	0.732
	B21	0.850		
	B25	0.777		
	B23	0.762		
	B22	0.803		
	B16	0.920		
	B17	0.935		
	B18	0.914		
	B19	0.910		
	B20	0.842		
Teaching and instruction	C27	0.857	0.987	0.831
	C36	0.936		
	C37	0.947		
	C38	0.940		
	C39	0.950		

Dimension	Item No.	Factor loading	CR	AVE
	C40	0.886		
	C41	0.934		
	C42	0.908		
	C28	0.891		
	C29	0.902		
	C30	0.879		
	C31	0.893		
	C32	0.926		
	C33	0.934		
	C34	0.895		
	C35	0.917		

Notes: Items with a factor loading of less than 0.70 are not shown.

5.2.3. Correlation analysis

Table 29 shows the correlation matrix of three dimensions in the questionnaire. The coefficients ranged from .835 to .919, indicating highly significant correlations with each other. There was also a significant correlation between each dimension and the total scale, ranging from .951 to .958. That revealed the questionnaire had a validated construct.

Table 29 Correlations among each dimension in the teacher questionnaire

	D1	D2	D3	D
D1	1			
D2	0.919**	1		
D3	0.853**	0.835**	1	
D	0.958**	0.955**	0.951**	1

Note. D1 is the dimension of Values and attitudes; D2 is the dimension of Management and environment; D3 is the dimension of Teaching and instruction. D is the overall level.

*p < .05, **p < .01, ***p < .001.

5.3. Instruments: A student questionnaire

Student questionnaire is based on the *Index for Inclusion* (Booth & Ainscow, 2002) and *Indicators of Inclusive Schools* (Education, 2013*)*. The *Index for Inclusion* is well known to be a set of materials to guide schools to develop inclusive education in line with their local setting through a dynamic process. The scale of *Indicators of Inclusive Schools* combines research on inclusion, school improvement, and effective instruction. The student questionnaire of the *Index for Inclusion* has been verified as a robust and adequate psychometric instrument to evaluate the school's inclusive process from students' views (Fernández-Archilla, Álvarez, Aguilar-Parra, Trigueros, Alonso-López & Echeita, 2020).

The questionnaire is composed of three sections. The first section had an instruction describing the study's purpose, significance, and assurance of confidentiality. The second section questioned the school, gender, and grades of students. The third section was a Likert scale with a four-point scale from 1 (definitely disagree), 2(slightly disagree), 3(slightly agree), and 4 (definitely agree). The Likert scale also has 29 items with three dimensions- Value and attitude, Management and environment, and Teaching and instruction, the same as the teacher questionnaire. The items and categories are as follows in Table 30:

Table 30 The categories and items of each dimension in the student questionnaire

Dimension	Categories	Items
Value and attitude	Respect and expectation	A1-3
	Diversity and engagement	A4-6
Management and environment	Communication and support	B1-5
	management and discrimination	B6-9
Teaching and instruction	Feasible management	C1
	Curriculum differentiation	C2
	Universal Design for Learning	C3-5
	Differentiated instruction	C6
	Co-teaching	C7

Collaborative learning	C8
Peer tutoring	C9-10
Individualized teaching	C11
Structured teaching	C12
Assessment strategies	C13,14

5.3.1. Reliability

To ensure good reliability of the questionnaire, the internal consistency coefficient Cronbach's Alpha was calculated. As shown in Table 31, the questionnaire analysis gave satisfactory internal consistency. The internal consistencies of the different subscales ranged from .74 to .89. The total scale was also satisfactory (.92). They are all acceptable.

Table 31 Reliability of the student questionnaire

Dimensions	Values and attitudes	Management and environment	Teaching and instruction	Total scale
Cronbach's Alpha	0.76	0.74	0.89	0.92

5.3.2. Validity

To ensure good content validity, the development of questionnaire items followed the strict three steps after the literature review. First, the questionnaire items in dimensions "values and attitudes" and "management and environment" were created from the literature review. Then, the researcher retrieved and refined some items according to the purpose of the study. In addition, the researcher adapted the questionnaire with the intention of making it as simple as possible to answer for pupils from Grade 4 to Grade 6 ranging the age from 9 to 12, when considering they could more well-understand the questionnaire items.

For example, in the dimension "values and attitudes", the item in the student questionnaire of the *Index for Inclusion* is: "*Staff and students treat one another with respect*". And we revised it for easy understanding to the pupils: "*My teachers treat*

everyone friendly in my class". The item in the student questionnaire of the *Indicators of Inclusive Schools* is: "*Everybody works together so that all students feel like they belong*". We refined it to "*I like to go to school*". The item "*My teachers expect me to always try my best*" is not changed. In the dimension "management and environment", "*My teachers like to listen to my idea*s" is from the *Index for Inclusion.* The item "*My teachers try to help students who have problems*" comes from *Indicators of Inclusive Schools* without revision. Yet, we created the items in the dimension "teaching and instruction" following our focus on nine inclusive teaching strategies according to the contextual features. All the items are in Appendix F.

Finally, a drafted questionnaire was developed for expert revisions. As a result of the expert validation, some items were changed, and others were eliminated. The final version is a 29-item questionnaire with good content validity.

Furthermore, Table 32 shows the range of values for the correlation matrix of three dimensions, ranging from .578 to .642. It revealed a moderately significant correlation within each dimension (Cohen et al., 2007). A significant correlation between each dimension and the total scale can be easily found because the range is from .792 to .917. Therefore, this student questionnaire has good reliability and validity.

Table 32 Correlations among each dimension in the student questionnaire

	D1	D2	D3	D
D1	1			
D2	0.642**	1		
D3	0.578**	0.640**	1	
D	0.792**	0.857**	0.917**	1

Note. D1 is the dimension of values and attitudes; D2 is the dimension of management and environment; D3 is the dimension of teaching and instruction. D is the overall level.

**p < .01.

5.4. Procedure

First, the researcher contacted the coordinator of the special education center in Y district to ask for permission from school principals to do the survey. Second, ask the coordinator to send the online questionnaire links to school leaders. The school leaders distributed the online questionnaire links to their teachers and students. Two questionnaires were conducted separately using by Wenjuanxing tool. Once the teachers and students submitted their questionnaires, the researchers could collect their answers.

5.5. Data analysis

Data were coded and entered into the Statistical Package for Social Sciences (SPSS) for Windows (22.0) for statistical analysis. No questionnaires were excluded due to the online tool's advantages. Thus, a total of 200 teacher questionnaires and 730 student questionnaires were analysed in SPSS software. Because the questionnaire was created by the researcher, the data was first analysed for reliability and validity in SPSS 22.0. Correlations among the questionnaire dimensions were also analysed. We performed significant difference analysis on different dimensions at different levels.

6. Qualitative Phase

The explanatory sequential design begins with a quantitative phase and follows up with a subsequent qualitative phase to explain the quantitative results (Creswell & Plano Clark, 2018). After carrying out the teacher questionnaire and student questionnaire, the researcher conducted a preliminary analysis of quantitative data. The researcher found that there were inconsistent results from the teacher and student questionnaires. Therefore, the researcher used subsequent interviews to help explain the quantitative results and obtain more depth information. Because the researchers can gain an inner understanding of a participant through an interview (Patton, 1987).

6.1. Participants

The explanatory sequential design best fits a study when the researcher uses quantitative results about participant characteristics to guide purposeful sampling for a qualitative

phase (Tashakkori & Teddlie, 1998). The researcher purposefully selected 24 teachers (12 teachers per school) in the W and H primary schools. Teachers from the T school did not continue in the research to participate in the interviews owing to the potential influence of COVID-19. Demographic information for teachers is shown in Table 33.

Table 33 Characteristics of the teachers in the interview

| | Item | School name: Frequency (%) | | Total |
		W school	H school	
Gender	Male	6(50)	1(8.33)	7(29.17)
	Female	6(50)	11(91.67)	17(70.83)
Age	20-30 years	6(50)	6(50)	12 (50)
	31-40 years	1(8.33)	3(25)	4(16.67)
	41-50 years	3(8.33)	3(25)	6(25)
	>50 years	2(16.67)	0(0)	2(8.37)
Teaching years	1-3 years	2(16.67)	5(41.67)	7(29.17)
	4-6 years	4(3.33)	2(16.67)	6(25)
	>=7 years	6(50)	5(41.67)	11(45.83)
Professional title	None	1(8.33)	6(50)	7(29.17)
	Third level	1(8.33)	0(0)	1(4.17)
	Second level	3(8.33)	2(16.67)	5(20.83)
	First level	3(8.33)	2(16.67)	5(20.83)
	Top level	4(3.33)	2(16.67)	6(25)
Teaching subject	Chinese	5(41.67)	3(25)	8(3.33)
	Mathematics	3(8.33)	2(16.67)	5(20.83)
	English	0(0)	1(8.33)	1(4.17)
	Science	1(8.33)	1(8.33)	2(8.37)
	Physical Education	2(16.67)	0(0)	2(8.37)
	Morality	0(0)	0(0)	0(0)

and life/society			
Music	1(8.33)	0(0)	1(4.17)
Art	0(0)	0(0)	0(0)
Information and technology	0(0)	0(0)	0(0)
Others	0(0)	3^*(8.33)	3(12.5)

Note. *2 are two special education teachers;1 is a psychological teacher.

In order to ensure the anonymity of samples' responses through the use of code to report the results, as indicated in Table 34.

Table 34 Sociodemographic characteristics of participants

School names	Age	Gender	Teaching years	Professional titles	Teaching Subject	Types of students with special educational needs in their classrooms	Code
H school	23	Female	<1	None	Chinese	ASD	H1
H school	26	Female	<1	None	Science	ADHD, intellectual disabilities	H2
H school	26	Female	<3	None	Chinese	Emotional Management Disorder, ADHD	H3
H school	28	Female	3-5	None	Special class	ASD, Multiple disabilities, severe intellectual disabilities	H4
H school	50	Female	30	Top level	Chinese	ADHD, intellectual disabilities	H5
H school	33	Female	2	None	Chinese	ASD	H6
H school	27	Female	3	Second level	Mathematics	Temper tantrums, attention problems,	H7
H school	41	Female	20	Top level	English	Behavior problems	H8
H school	38	Female	7	First level	Psychological Counseling	Be responsible for the emotional problems of students	H9
H school	27	Male	5	Second level	Mathematics	Dysarthria	H10
H school	44	Female	21	Top level	Chinese	ASD, ADHD	H11
H school	33	Female	8	None	Special education	ASD, ADHD, intellectual disabilities	H12
W school	40	Male	18	First level	Science	Emotional problems	W1
W school	38	Male	16	First level	Mathematics	Learning disabilities	W2
W school	41	Male	17	Top level	Music	Intellectual disabilities	W3

W school	47	Female	27	Top level	Chinese	Physical disabilities, psychological problems, ADHD	W4
W school	27	Male	1	None	Physical Education	Emotional problems, behavior problems	W5
W school	27	Female	5	Second level	Mathematics	ADHD, psychological problems	W6
W school	28	Female	4	First level	Chinese	Attention problems	W7
W school	27	Male	5	Second level	Physical Education	Emotional problems	W8
W school	26	Female	5	Second level	Mathematics	Emotional problems	W9
W school	26	Male	1.5	Second level	Chinese	ADHD	W10
W school	54	Female	35	Top level	Chinese	Hearing disabilities	W11
W school	52	Female	32	Top level	Chinese	Intellectual disabilities	W12

6.2. Data collection

The qualitative interview data promoted a more comprehensive understanding than would have been possible merely by using a quantitative survey (Creswell & Plano Clark, 2018). Because researchers can "obtain in-depth information about a participant's thoughts, beliefs, knowledge, reasoning, motivations, and feelings about a topic" by employing in-depth interviews (Johnson & Christensen, 2014, p. 322). The interview was used to collect qualitative data concerning the teachers' thoughts and beliefs in reality.

First, the researcher had a meeting with the school principal and the coordinator to discuss how to carry out the interview. The coordinator helped to arrange the interview time and place, considering the school's daily routine. The interview was conducted in a quiet room to record the interview process. Every interview last 15-30 minutes. Before the researcher started to interview, the interviewee was informed of the research purpose, significance and an assurance of confidentiality, and the interview was audio-recorded during the whole process. The recordings of interviews were transcribed verbatim after the interview.

6.3. Instrument: Interview

The interview outline (in Appendix G) for teachers was subsequently developed around our conceptual framework of inclusive teaching strategies and inconsistent results in the first quantitative phase after the preliminary analysis of questionnaires. The outline was translated into Chinese before conducting the interviews. It consists of three sections. At the beginning of the interview, there is a statement that explains the purpose of the study, and all responses will be treated anonymously and confidentially. The second section is personal and professional information, including the interviewee's age, teaching years, teaching subjects, and types of students with special educational needs. In total, there are 21 questions in the interview related to "conception of inclusive education", "value and attitudes towards inclusive education", "school management",

"policy on inclusive education", and "inclusive teaching strategies". The conducting of the interview did not have any impact on the interviewees' daily work.

Table 35 The topics of the dimensions

Dimensions (categories)	Topics
Attitudes and values	Concepts, attitudes, respect, equity, diversity, facilitators, and barriers
Management and environment	School management and environment, support, and collaboration with others
Teaching and instruction	Inclusive teaching strategies

6.4. Data analysis

Qualitative research must be conducted and analyzed in a rigorous process with the purpose of creating useful results (Nowell et al., 2017). Thematic analysis (TA) is widely used in a range of qualitative research owing to its flexibility and status (Braun & Clarke, 2006; Clarke, Braun & Hayfield, 2015). Because thematic analysis is "a useful method for examining the perspectives of different research participants, highlighting similarities and differences, and generating unanticipated insights" (Nowell, et al., 2017). Therefore, in the qualitative phase, the researcher used the thematic analysis method to analyses the data. Thematic analysis is "a method for identifying, analysing, and reporting themes within data" (Braun & Clarke, 2006, p. 79). As Braun & Clarke (2006) suggested, presented in Table 36, a good TA has robust criteria. According to these criteria, the researcher completed the TA in the qualitative phase.

Table 36 15-point checklist for a good TA

Process		Criteria
Transcription	1.	The data have been transcribed to an appropriate level of detail, and the transcripts have been checked against the tapes for 'accuracy'.
Coding	2.	Each data item has been given equal attention in the coding

process.

3. Themes have not been generated from a few vivid examples (an anecdotal approach), but instead the coding process has been thorough, inclusive and comprehensive.

4. All relevant extracts for all each theme have been collated.

5. Themes have been checked against each other and back to the original data set.

6. Themes are internally coherent, consistent, and distinctive.

Analysis

7. Data have been analysed--interpreted, made sense of-- rather than just paraphrased or described.

8. Analysis and data match each other--the extracts illustrate the analytic claims.

9. Analysis tells a convincing and well-organized story about the data and topic.

10. A good balance between analytic narrative and illustrative extracts is provided.

Overall

11. Enough time has been allocated to complete all phases of the analysis adequately, without rushing a phase or giving it a once-over-lightly.

Written report

12. The assumptions about, and specific approach to, thematic analysis is explicated.

13. There is a good fit between what you claim you do, and what you show you have done -- ie, described method and reported analysis are consistent.

14. The language and concepts used in the report are consistent with the epistemological position of the analysis.

15. The researcher is positioned as active in the research process; themes do not just 'emerge'.

Source: Braun & Clarke, 2006, p. 96.

Specifically, some researchers provide systematic analytical procedures to enhance trustworthiness and produce insightful findings (Braun & Clarke, 2006; Creswell, 2018; Peel, 2020; Yin, 2015), as indicated in Table 37. Braun & Clarke (2006) provided a six-phase analysis guide. They thought that "analysis is not a linear process of simply

moving from one phase to the next" but a "more recursive process" (p. 86). Creswell (2018) described the analysis process as a spiral. He agreed with Braun & Clarke (2006) and suggested that "to analyze qualitative data, the researcher engages in the process of moving in analytic circles" (Creswell, 2018, p. 308) instead of a linear approach. Peel (2020) designed a rigorous six-stage data thematic analysis process. The flexible procedures made it easier for a younger researcher "to manage the complex processes of moving between the concrete descriptions and the abstract interpretations" (p. 7). Yin (2018) offered a Five-Phased Cycle to analyze qualitative data: compiling, disassembling, reassembling, interpreting, and concluding. Furthermore, Castleberry & Nolen (2018) outlined a model of TA within this cycle. However, in this study, the researcher will follow up the Braum and Clarke's recursive model, which has been widely introduced by many researchers (Castleberry & Nolen, 2018; Nowell et al., 2017; Peel, 2020; Terry et al., 2017).

Table 37 Processes of data analysis in thematic analysis

Research	Processes of data analysis
Braun & Clarke, 2006	Familiarising with data
	Generating initial codes
	Searching for themes
	Reviewing themes
	Defining and naming themes
	Producing the report
Creswell, 2018	Managing and organizing the data
	Reading and memoing emergent ideas
	Describing and classifying codes into themes
	Developing and assessing interpretations
	Representing and visualizing the data
Peel, 2020	Engaging with data
	Coding the extracts from the data
	Generating the code categories
	Conceptualising the themes
	Contextualising and representing the findings

Yin, 2015	Compiling
	Disassembling
	Reassembling
	Interpreting
	Concluding

Source: Braun & Clarke 2006, p. 87; Creswell, 2018, p. 309; Peel, 2020, p. 8; Yin, 2015, p. 185.

6.5. Trustworthiness

Trustworthiness in qualitative research is significant as validity and reliability in quantitative research. Because trustworthiness can demonstrate to readers that the research findings and conclusions are credible (Lincoln & Cuba, 1985). The criteria of trustworthiness, introduced by Lincoln and Cuba (1985), are "original, widely accepted, easily recognized" (Nowell et al., 2017, p. 3). Their criteria of trustworthiness are refined by credibility, transferability, dependability, and confirmability. In addition, they suggested some operatable means to meet the criteria. Considering the criteria of Lincoln and Cuba (1985), Nowell et al. (2017) provided a step-by-step approach with a clear description of the analysis method to "create sensitive, insightful, rich, and trustworthy research findings" (p. 2) within the framework of Braun & Clarke (2006). As shown in Table 38, this study used this approach to establish trustworthiness.

Table 38 Establishing trustworthiness during each phase of thematic analysis

Phases of thematic analysis	Means of establishing trustworthiness	Means used in this study
1. Familiarising with data	Prolong engagement with data Triangulate different data collection modes Document theoretical and reflective thoughts Document thoughts about potential codes/themes	Prolong engagement with data Triangulate different data collection modes Document theoretical and reflective thoughts Store raw data in well-

		Store raw data in well-organized archives	organized archives
		Keep records of all data field notes, transcripts, and reflexive journals	
2.	Generating initial codes	Peer debriefing	Triangulation
		Researcher triangulation	Use of a coding framework
		Reflexive journaling	Reflexive journaling
		Use of a coding framework	Documentation
		Audit trail of code generation	
		Documentation of all team meetings and peer debriefings	
3.	Searching for themes	Researcher triangulation	Detailed notes
		Diagramming to make sense of theme connections	Diagramming to make sense of theme connections
		Keep detailed notes about the development and hierarchies of concepts and themes	Keep detailed notes about the development and hierarchies of concepts and themes
4.	Reviewing themes	Researcher triangulation	Themes and subthemes vetted many times
		Themes and subthemes vetted by team members	
		Test for referential adequacy by returning to raw data	
5.	Defining and naming themes	Researcher triangulation	Consensus on themes
		Peer debriefing	Documentation
		Team consensus on themes	
		Documentation of team meetings regarding themes	
		Documentation of theme naming	
6.	Producing the report	Member checking	Describing process of coding and analysis in sufficient details
		Peer debriefing	
		Describing process of coding and analysis in sufficient details	Report on reasons for

Thick descriptions of context	theoretical,
Description of the audit trail	methodological, and
Report on reasons for theoretical,	analytical choices
methodological, and analytical	throughout the entire
choices throughout the entire study	study

Source: Nowell et al., 2017, p. 4.

1. Familiarising with data

In this phase, four major means were utilized to create credible findings. They are prolonged engagement with data, triangulating different data collection modes, document theoretical and reflective thoughts, store raw data in well-organized archives. *Prolonged engagement with data* means "learning the 'culture,' testing for misinformation introduced by distortions either of the self or of the respondents, and building trust" (Lincoln & Cuba, 1985, p. 301). After conducting the teacher interview, the researcher started with transcripts and spent sufficient time engaging with the transcripts. Meanwhile, the researcher *triangulated different data collection* from the three research instruments during the quantitative and qualitative phases. The triangulation process is to verify the collected data in the qualitative phase. *Document theoretical and reflective thoughts* from the initial analytic thoughts to transcripts and the triangulation process. It is imperative to manage the data with well-organized archives. Thus, store raw data (22 transcripts) in well-organized archives. All the transcripts were named with participant code and stored in a secure network location. Immerse myself in data, and understand the collected raw data with the depth and breadth of the content (Braun & Clarke, 2006).

2. Generating initial codes

After reading and engaging with the data several times, the researcher familiarized themselves with raw data and started to generate initial codes. What is qualitative coding? It is "a theorizing activity" (Nowell et al., 2017, p. 5) after constant reflection and dialogue with the collected data. What is a good code? Boyatzis (1998) claimed

that it represented the qualitative richness of the problem. Braun and Clarke (2006) thought two types of the coding process according to the themes are "data-driven" and "theory-driven" (p. 88). The themes of this study are "theory-driven". The researcher always kept the three dimensions and categories in mind during the whole coding process. Braun and Clarke (2006) also suggested that "work systematically through the entire data set, giving full and equal attention to each data item, and identify interesting aspects in the data items that may form the basis of repeated patterns (themes) across the data set." (p89)

Triangulation, use of a coding framework, reflexive journaling, and documentation were performed to enhance the trustworthiness during the initial coding process. First, triangulation was conducted to ensure credibility. A coding framework was used to record the coding process. It "provided a clear trail of evidence for the credibility of the study" (Nowell et al., 2017, p). A codebook with definitions and examples was produced to guide the coding process, as shown in Table 39. Reflexive journaling was utilized to record new ideas when the researcher was coding. The researcher also used the NVivo software program to organize the large data and to manage emerging ideas during the analysis process. These thick descriptions help the transfer of the findings. The detailed documentation of the process and procedures was to ensure a high degree of dependability. After one month of completing the coding, the researcher recoded the data again to ensure confirmability.

Table 39 Excerpt from the codebook

Theme, Definition	Example
Inclusive education	Concepts, understanding…
Inclusive values	Equality, respect, trust, diversity…
Positive attitudes	"I think it is not a problem that students with special educational needs learn in my class" …
Negative attitudes	"I think students with special educational needs bring some trouble for my teaching" …

Inclusive environment	Welcome all; students help each other; teachers listen to students…
Less inclusive environment	Students with special educational needs just sit in the class, not learn; Teachers don't welcome all students; "It is difficult for me to consider all students…"
Inclusive management	Inclusive policies, LRC implementation, leadership for inclusion, elimination of discrimination, overcoming the barriers…
Less inclusive management	No measures to prevent bullying, inflexible arrangements, few opportunities for parents and community participation, no collaboration with professionals…
Use teaching strategies	"I often use collaborative learning to support student learning" … "I sometimes ask students to help other classmates" … "I can adapt my teaching contents and materials" … "I ask the students to leave to tutor them after class" …
Not use teaching strategies	"It is difficult to cater for all students' needs" … "I don't have a special education plan for them" … "I don't use structured learning in the classroom" … "Students cannot assess their classmates" …

3. Searching for themes

What is a theme in qualitative analysis? "A theme is an abstract entity that brings meaning and identity to a recurrent experience and its variant manifestations. As such, a theme captures and unifies the nature or basis of the experience into a meaningful whole" (DeSantis and Ugarriza, 2000, p. 362). This phase "involves sorting the different codes into potential themes, and collating all the relevant coded data extracts within the identified themes" (Braun & Clarke, 2006, p. 89). The purpose of the analysis is "to form an overarching theme" (Braun & Clarke, 2006, p. 89) through the distinct code combinations. Detailed notes about the development of subthemes were

documented in the codebook to establish confirmability.

4. Reviewing themes

This phase involves theme refinement after producing all themes. "Researchers review the coded data extracts for each theme to consider whether they appear to form a coherent pattern" (Nowell et al., 2017, p. 9). That is, if the emerging codes did not include all the data, there needs a new code. If one theme overlaps with others or there is not enough data to support some themes, they may be discarded (Braun & Clarke, 2006). Finally, the researcher "should have a fairly good idea of ⋯⋯different themes are, how they fit together, and the overall story they tell about the data" (Braun & Clarke, 2006, p. 92). During this phase, all themes and subthemes were vetted several times. The researcher always reviewed the coded data extracts for each theme for a coherent pattern. Because there were not enough data to support some themes, they were deleted.

5. Defining and naming themes

This phase involves defining and refining the themes. It means "identifying the 'essence' of what each theme is about (as well as the themes overall), and determining what aspect of the data each theme captures" (Braun & Clarke, 2006, p. 92). Check all the data extracts for each theme, organize them, and write a detailed analysis for each theme. This phase is preparing for the report writing. Braun & Clarke (2006) also suggested that theme "names need to be concise, punchy, and immediately give the reader a sense of what the theme is about" (p. 93). The purpose of this phase is that researchers can explicitly describe the scope and content of each theme. If not, researchers need to further refine the themes (Braun & Clarke, 2006). As the researcher mentioned above, the researcher defined and refined the themes twice over a period of time. All of the data have been read through, and the coding scrutinized several times for consensus on themes to enhance the credibility of findings. The researcher documented the detail of defining and refining themes to establish the transferability of findings.

6. Producing the report

The final phase of analysis is report writing to "tell the complicated story of your data in a way which convinces the reader of the merit and validity of your analysis" (Braun & Clarke, 2006, p. 93). It requires sufficient evidence for each theme. For example, present vivid examples or significant extracted data with an analytic narrative to illustrate the story of data (Nowell et al., 2017). Direct quotes from participants often are used to deepen the understanding of specific points of interpretation (King, 2004). In addition, researchers may refer to the literature and make an argument for the findings. After completing the themes refinement, the researcher started to write up the report in the thesis. Shorter quotes within the narrative and longer block quotes were used to demonstrate the story of data. "The quotes were accompanied by a unique identified" (Nowell et al., 2017, p. 11) to indicate the sources from different participants. The researcher also referred back to the literature to determine whether it may support or not the findings. If not, the findings may add to the knowledge of the subject. The researcher discussed all the results, including the different results from the main existing literature. Describe the process of coding and analysis in sufficient detail was used to ensure the transferability of results. And report the reasons for theoretical, methodological, and analytical choices throughout the entire study to confirm the findings.

Chapter 4: Results

In this part, the results of the quantitative phase (teacher questionnaire, student questionnaire) and qualitative phase (teacher interview) are presented. They include descriptive statistics, the overall level of each dimension, the findings of the three dimensions, and significant differences analysis.

1. Quantitative phase

1.1. Findings of teacher questionnaire

The concept of inclusive education

Figure 14 Do you know the concept of inclusive education
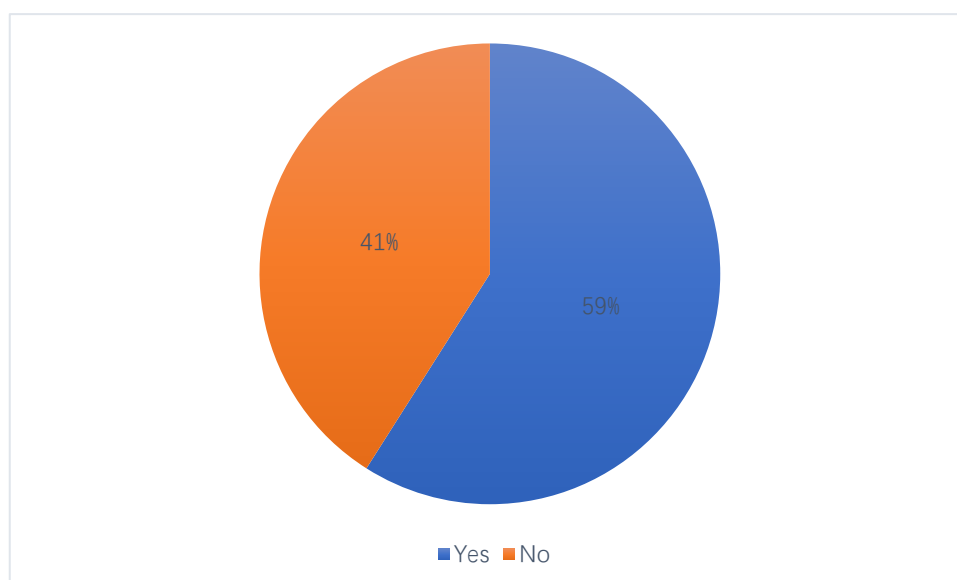
As shown in Figure 14, although more than half of the participants (118) know the concept, 41% (82) teachers don't know the concept of inclusive education.

Table 40 Have you got any training on inclusive teaching strategies

Items	Frequency	Percent
Yes	43	21.5
No	157	78.5
Total	200	100.0

Table 40 indicates that only 21.5% of teachers think they have got some training on inclusive teaching strategies.

Table 41 Do you want to get any training on inclusive teaching strategies

Items	Frequency	Percent
Yes	116	73.9
No	41	26.1
Total	157	100.0

Even though 78.5% of teachers think they have not received any training on inclusive teaching strategies, 73.9% (116) of teachers want to receive some training on inclusive teaching strategies.

Table 42 Is there any resource classroom in your school

Items	Frequency	Percent
Yes	129	64.5
No	71	35.5
Total	200	100.0

Table 42 demonstrates that 64.5% of teachers think there is a resource classroom in their schools.

Table 43 Is there any resource teacher in your school

Items	Frequency	Percent
Yes	113	56.5
No	87	43.5

Table 42 and Table 43 indicate that 35.5% of teachers think there is no resource classroom and 43.5% of teachers think they don't have a resource teacher in their schools.

Overall situation

The mean and standard deviations of each dimension are shown in Table 44 below. The averages from high to low are teaching and instruction, values and attitudes, management, and environment.

Table 44 Mean and standard deviations of each dimension

Dimension	*M*	*SD*
D1	3.38	0.48
D2	3.34	0.51
D3	3.41	0.48
D	3.38	0.47

Note. D1 is the dimension of values and attitudes; D2 is the dimension of management and environment; D3 is the dimension of teaching and instruction. D is the overall level.

Findings from three dimensions

Table 45 Mean and Standard Deviation in the dimension "values and attitudes"

Items of the dimension "values and attitudes"	*M*	*SD*	*N*
A1. Everyone is made to feel welcome in my school.	1.67	.443	200
A2. My students help each other.	1.65	.318	200
A3. Staffs collaborate with each other in my school.	1.56	.258	200
A4. Staffs and students treat one another with respect.	1.61	.300	200
A5. There is a partnership between staff and parents/carers in my school.	1.64	.312	200
A6. Staff and governors work well together in my school.	1.60	.302	200
A7. All local communities are involved in my school.	1.76	.384	200
A8. There are high expectations for all students in my school.	1.70	.384	200
A9. Staff, governors, students and parents/carers	1.68	.400	200

share a philosophy of inclusion in my school.

A10. My students are equally valued.	1.44	.248	200
A11. Staff and students treat one another as human beings as well as occupants of a role in my school.	1.62	.327	200
A12. Staffs seek to remove barriers to learning and participation in all aspects of my school.	1.58	.316	200
A13. My school strives to minimize all forms of discrimination.	1.56	.308	200

We might conclude that the majority of teachers (more than 90%) agree with the items in this dimension. That is, the participants consider that schools have inclusive values and teachers have positive attitudes towards inclusive education. Every student could be valued equally and treated respectfully.

Table 46 Means, Standard Deviations in the dimension "management and environment"

Items of the dimension "management and environment"	M	SD	N
B1. Staff appointments and promotions are fair in my school.	1.76	.512	200
B2. All new staff are helped to settle into my school.	1.61	.289	200
B3. My school seeks to admit all students from its locality.	1.80	.523	200
B4. My school makes its building physically accessible to all people.	1.87	.596	200
B5. All new students are helped to settle into my school.	1.62	.288	200
B6. My school arranges teaching groups so that all students are valued.	1.61	.321	200
B7. All forms of support are co-ordinated in my	1.62	.318	200

school.

	M	SD	N
B8. Staff development activities help staff to respond to student diversity in my school.	1.63	.335	200
B9. 'Special educational needs' policies are inclusion policies in my school.	1.65	.349	200
B10. The Regulations on Education of Persons with Disabilities is used to reduce the barriers to learning and participation of all students in my school.	1.68	.371	200
B11. Support for those learning English as an additional language is co-ordinated with learnings support in my school.	1.73	.417	200
B12. Pastoral and behaviour support policies are linked to curriculum development and learning support policies in my school.	1.68	.307	200
B13. Pressures for disciplinary exclusion are decreased in my school.	1.63	.306	200
B14. Barriers to attendance are reduced in my school.	1.57	.277	200
B15. Bullying is minimised in my school.	1.53	.260	200

As it is shown in the Table 46, a large number of teachers definitely agree or agree that they have inclusive management and environment to include all the teachers and students in the schools.

Table 47 Means, Standard Deviations in the dimension "teaching and instruction"

Items of the dimension "teaching and instruction"	M	SD	N
C1. I have opportunities to make modification of the syllabus and teaching materials	1.72	.391	200

when teaching in my classroom.

C2. I adapt the curriculum to meet the individual needs of all students regardless of their situation.	1.64	.323	200
C3. I present information by providing textbooks, audio, video and hands-on formats in my classroom.	1.54	.260	200
C4. I look for multiple ways to motivate students.	1.52	.271	200
C5. My classroom is easy to move for individual or group work with varied types of furniture and arrangements.	1.67	.343	200
C6. I provide students with a range of different avenues for acquiring the content of teaching.	1.57	.276	200
C7. The teaching process is differentiated for students based on their learning styles and readiness in my classroom.	1.60	.281	200
C8. My students can demonstrate the gainy of learning by tests, projects, reports or other activities.	1.60	.262	200
C9. I work with my colleagues through co-teaching to help student's learning.	1.58	.274	200
C10. My students work together and learn in pairs or groups in my class.	1.57	.266	200
C11. My students teach each other and learn from each other.	1.56	.268	200
C12. I design individualized Education Plans according to some students'	1.63	.313	200

individual needs.

C13.	I use physical objects, molds, etc. as teaching aids to carry out intuitive teaching and improve learning efficiency.	1.58	.255	200
C14.	I encourage students to complete teaching activities through games.	1.54	.269	200
C15.	I create a clear and well-organed learning atmosphere.	1.56	.257	200
C16.	I present learning materials and work procedures to students in a structured, visual way.	1.57	.266	200
C17.	Pre-assessment is conducted to determine students' prior knowledge and identify their learning preferences and interests before planning their lessons.	1.59	.262	200
C18.	My students can self-assess their work and reflect on their learning.	1.62	.296	200
C19.	Formative assessment is adopted to gather the details of student performance during the learning process in my class.	1.60	.292	200
C20.	Summative assessment is utilized to check out the teaching outcome at the end of one instructional unit or one term.	1.59	.274	200

In terms of inclusive teaching strategies, they (over 90%) also definitely agree or agree with the items. That means the sample teachers thought that the nine inclusive teaching strategies were used in their classrooms. We could have some doubt that 78.5% of teachers haven't received any training on inclusive teaching strategies. However, it seems that these teachers adopt many inclusive teaching strategies to accommodate diverse students' needs.

Figure 15 The summary of which teaching strategies teachers use
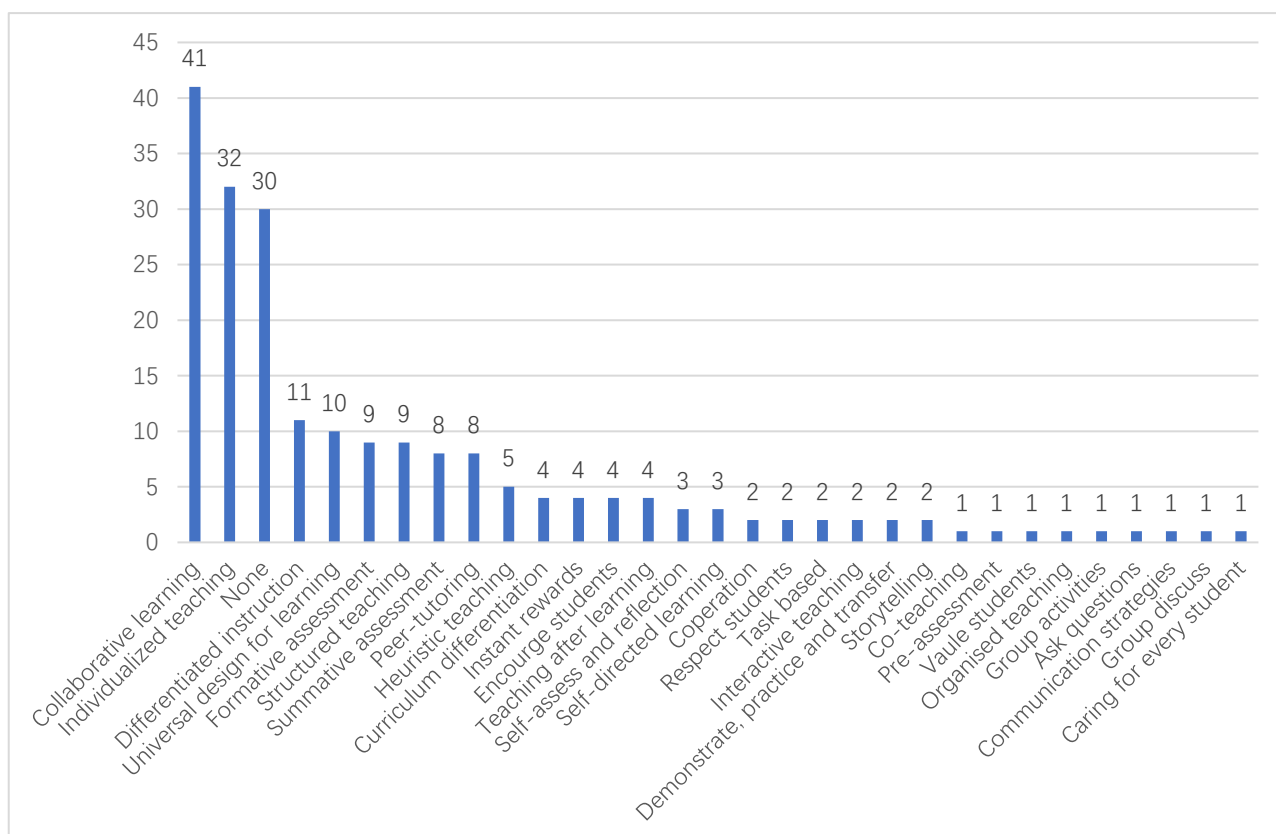
The last open question in the teacher questionnaire is: *Which teaching strategies do you usually use in your classroom? How do you organize it?* The researcher made a summary of all the responses, as indicated in Figure 15. There are an array of teaching strategies that teachers use in regular primary schools. Some inclusive teaching strategies are included in this study, such as collaborative learning, individualized teaching, and differentiated instruction. Collaborative learning is the most commonly used. Regardless, co-teaching pre-assessment is rarely used to accommodate students' diverse needs.

However, other teaching strategies which are not mentioned in the present study are found usually used in regular classrooms. For example, five teachers mentioned that heuristic teaching was frequently used in their classrooms. The strategy of instant rewards was used to praise pupils' positive performance. The teaching strategies of "teaching after learning", "self-directed learning", "task based", "interactive learning", "ask questions", and "group discuss" are also used to promote student learning. It should be noticed that thirty teachers thought they didn't have inclusive teaching

strategies to serve students even though a substantial set of school-aged children go to regular primary schools. This also reflects the value of this study.

And the researcher generated a word cloud by the frequency of teaching strategies that teachers usually use in their classrooms, as shown in Figure 16. A word cloud is a method of visualized analysis. The use of teaching strategies is presented with clarity. For instance, the teaching strategies of collaborative learning, individualized teaching, and universal design for learning are highlighted. The "none" is also obvious.

Figure 16 Word cloud of which teaching strategies teachers use

Significant differences analysis

The independent sample t-test was conducted on the data of sample teachers of different genders, and the results are shown in Table 48 below. The analysis found that there is no significant difference in the three dimensions between primary teachers of different genders.

Table 48 Means, Standard Deviations, and t test in three dimensions among teachers of different genders

Dimension	Gender	*M*	*SD*	*t*	*p*
D1	Male	3.48	0.49	1.46	0.15
	Female	3.36	0.48		

D2	Male	3.40	0.51	0.88	0.38
	Female	3.32	0.51		
D3	Male	3.49	0.46	1.14	0.26
	Female	3.39	0.48		
D	Male	3.46	0.47	1.20	0.23
	Female	3.36	0.47		

Note: D1 is the dimension of Values and attitudes; D2 is the dimension of Management and environment; D3 is the dimension of Teaching and instruction. D is the overall level. Similarly hereinafter.

Same as mentioned above, through the analysis of variance (ANOVA) of primary teachers of different ages, teaching years, academic positions, teaching grades, and educational backgrounds in SPSS (22.0), it is found that there are no significant differences in the three dimensions of primary teachers of different ages, teaching ages, academic position, teaching grades, and educational backgrounds, as shown in Table 49, Table 50, Table 51, Table 52, Table 53.

Table 49 Means, Standard Deviations, and One-Way Analyses of Variance in three dimensions among teachers of different ages

Dimension	20-30 years old		31-40years old		41-50 years old		More than 50 years old		*F*	*p*
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*		
D1	3.38	0.52	3.38	0.45	3.37	0.48	3.39	0.47	0.02	0.99
D2	3.35	0.54	3.38	0.47	3.31	0.52	3.29	0.49	0.30	0.83
D3	3.38	0.50	3.42	0.47	3.43	0.50	3.40	0.45	0.15	0.93
D	3.37	0.51	3.40	0.43	3.38	0.47	3.36	0.44	0.06	0.98

Table 50 Mean, Standard Deviation, and One-Way Analyses of Variance in three dimensions among teachers of different teaching years

Dimension	Teaching years	*M*	*SD*	*F*	*p*

	Items	M	SD	F	p
D1	Less than 1 year	3.54	0.47	0.67	0.57
	1-3 year	3.39	0.56		
	4-6 years	3.44	0.50		
	More than 6 years	3.35	0.46		
D2	Less than 1 year	3.48	0.49	0.70	0.55
	1-3 year	3.35	0.60		
	4-6 years	3.42	0.50		
	More than 6 years	3.30	0.49		
D3	Less than 1 year	3.50	0.50	0.22	0.89
	1-3 year	3.41	0.53		
	4-6 years	3.43	0.48		
	More than 6 year	3.39	0.47		
D	Less than 1 year	3.50	0.49	0.50	0.68
	1-3 year	3.39	0.55		
	4-6 years	3.43	0.49		
	More than 6 years	3.35	0.44		

Table 51 Mean, Standard Deviations, and One-Way Analyses of Variance in three dimensions among teachers of different academic positions

	Items	M	SD	F	p
D1	None	3.51	0.48	1.15	0.33
	Third level	3.18	0.86		
	Second level	3.38	0.47		
	First level	3.34	0.46		
	Top level	3.47	0.47		
D2	None	3.45	0.53	0.78	0.54
	Third level	3.21	0.95		
	Second level	3.35	0.47		

	First level	3.29	0.50		
	Top level	3.42	0.47		
	None	3.52	0.49		
	Third level	3.31	0.79	1.00	0.41
D3	Second level	3.36	0.45		
	First level	3.37	0.47		
	Top level	3.52	0.47		
	None	3.49	0.49		
	Third level	3.24	0.85		
D	Second level	3.36	0.46	1.00	0.41
	First level	3.34	0.44		
	Top level	3.48	0.45		

Table 52 Mean, Standard Deviations, and One-Way Analyses of Variance in three dimensions among teachers of different teaching grades

	Items	*M*	*SD*	*F*	*p*
	Grade 1	3.47	0.48	0.57	0.72
	Grade 2	3.37	0.46		
D1	Grade 3	3.33	0.43		
	Grade 4	3.43	0.58		
	Grade 5	3.40	0.47		
	Grade 6	3.30	0.48		
	Grade 1	3.44	0.50	0.72	0.61
	Grade 2	3.35	0.46		
D2	Grade 3	3.27	0.46		
	Grade 4	3.41	0.59		
	Grade 5	3.32	0.54		
	Grade 6	3.25	0.50		
D3	Grade 1	3.48	0.50	0.38	0.86

	Items	M	SD	F	p
	Grade 2	3.40	0.47		
	Grade 3	3.33	0.46		
	Grade 4	3.42	0.52		
	Grade 5	3.43	0.48		
	Grade 6	3.38	0.47		
	Grade 1	3.46	0.48	0.54	0.75
	Grade 2	3.38	0.46		
	Grade 3	3.31	0.43		
D	Grade 4	3.42	0.54		
	Grade 5	3.39	0.45		
	Grade 6	3.32	0.45		

Table 53 Mean, Standard Deviations, and One-Way Analyses of Variance in three dimensions among teachers of different educational backgrounds

	Items	M	SD	F	p
	Associate degree	3.62	0.51	0.92	0.40
D1	Bachelor's degree	3.37	0.48		
	Gain's degree	3.44	0.48		
	Associate degree	3.67	0.49	1.34	0.26
D2	Bachelor's degree	3.32	0.51		
	Gain's degree	3.35	0.50		
	Associate degree	3.67	0.52	0.98	0.38
D3	Bachelor's degree	3.39	0.48		
	Gain's degree	3.44	0.47		
	Associate degree	3.65	0.51	1.16	0.31
D	Bachelor's degree	3.36	0.47		
	Gain's degree	3.41	0.47		

Through an ANOVA test of sample teachers in different teaching subjects, it indicates that the mean of teachers who teach science and arts, in the dimension of value and

attitude, is greater than that of teachers who teach other subjects. The mean of teachers who teach Chinese, morality, and society/ life in the dimension of value and attitude is smaller than that of teachers who teach other subjects. It means that there is a significant difference among teachers of different subjects in the dimension "values and attitudes". The specific results are shown in Table 54.

Table 54 Mean, Standard Deviations, and One-Way Analyses of Variance in three dimensions among teachers of different subjects

Dimension	Subjects	M	SD	F	η^2
	Chinese	3.28	0.50		
	Mathematics	3.35	0.47		
	English	3.36	0.46		
	Science	3.82	0.37		
	P.E.	3.55	0.45		
Value and attitude	Morality and society/ life	2.90	0.20	2.004^*	
	Music	3.46	0.53		
	Art	3.62	0.41		
	Information technology	3.48	0.53		
	other	3.54	0.44		

$^*p < .05$.

Through an ANOVA test of participants with different titles, it indicated that teachers with the different titles have significant differences in all dimensions. After comparison, it is found that the tutor's means of all dimensions are significantly lower than other titles, as shown in Table 55.

Table 55 Mean, Standard Deviations, and One-Way Analyses of Variance in three dimensions among teachers of different title

Dimension	Title	*M*	*SD*	*F*	Multiple Comparisons
	School leader	3.62	0.50	4.02***	
	Coordinator	3.40	0.48		1>3,
D1	Tutor	3.21	0.48		4> 3,
	Teacher	3.42	0.45		5 > 3
	Others	3.71	0.44		
	School leader	3.54	0.49	3.03*	
	Coordinator	3.42	0.47		1 >3,
D2	Tutor	3.20	0.48		5 > 3,
	Teacher	3.35	0.52		4 >5
	Others	3.73	0.44		
	School leader	3.60	0.48	3.24*	1 >3,
	Coordinator	3.51	0.48		2>3,
D3	Tutor	3.25	0.46		4> 3,
	Teacher	3.43	0.47		5 > 3
	Others	3.71	0.42		
	School leader	3.58	0.47	3.65*	1>3,
	Coordinator	3.46	0.46		4> 3,
D	Tutor	3.22	0.45		5 > 3
	Teacher	3.40	0.46		
	Others	3.72	0.43		

Note. "1" refers to "School leader", "2" refers to "Coordinator", "3" refers to "Tutor", "4" refers to "Teacher", "5" refers to "Others". "Others" mean that other titles are not mentioned here, such as "substitute teachers".

*p < .05. **p < .01. ***p < .001.

The independent sample t-test was performed on the data of sample teachers of understanding of the concept of inclusive education and teaching training, and the

results are shown in Table 56 and Table 57 below. The analysis finds that there is no significant difference in the three dimensions among participants in the understanding of the concept of inclusive education. However, there is a significant difference in the dimension "management and environment" among primary teachers of teacher training. After comparison, it indicated that the mean of teachers who had got teacher training on dimensions of "management and environment" are significantly larger than other teachers who haven't any training on inclusive education.

Table 56 Mean, Standard Deviations, and t test in three dimensions among teachers with or without the understanding of the concept of inclusive education

Dimensions	Do you know the conception of inclusive education?	*M*	*SD*	*t*	*p*
D1	Yes	3.41	0.47	0.95	0.34
	No	3.34	0.49		
D2	Yes	3.36	0.48	0.88	0.38
	No	3.30	0.55		
D3	Yes	3.40	0.48	-.12	0.90
	No	3.41	0.49		
D	Yes	3.39	0.45	0.51	0.61
	No	3.36	0.49		

The same as noted above, an independent sample t-test was conducted by the data of the question, "is there any resource classroom in your school". There is a significant difference in the dimension "management and environment" among primary teachers with and without having a resource classroom in their school, as shown in Table 57.

Table 57 Mean, Standard Deviations, and t test in three dimensions among teachers with or without training on inclusive education

Dimensions	Have you got any training on inclusive education?	*M*	*SD*	*t*	*p*	Comparison

D1	Yes	3.50	0.46	1.81	0.072	/
	No	3.35	0.48			
D2	Yes	3.48	0.47	2.11*	0.036	1>2
	No	3.30	0.51			
D3	Yes	3.52	0.46	1.79	0.075	/
	No	3.37	0.48			
D	Yes	3.50	0.44	1.99*	0.048	1>2
	No	3.34	0.47			

"1" refers to "I have got some training on inclusive education"; "2" refers to "I haven't got any training on inclusive education".

*p < .05.

After comparison, it indicates that the mean of teachers who have a resource classroom on the dimensions of "management and policy" are significantly greater than other teachers who don't have a resource classroom in their school.

Table 58 Mean, Standard Deviations, and t test in three dimensions among teachers with or without the resource classroom in their schools

Dimensions	Is there any resource classroom in your school?	*M*	*SD*	*t*	*P*	Comparison
D1	Yes	3.43	0.47	1.83	0.07	/
	No	3.30	0.50			
D2	Yes	3.40	0.48	2.52*	0.01	1>2
	No	3.21	0.55			
D3	Yes	3.44	0.46	1.27	0.21	/
	No	3.35	0.51			
D	Yes	3.42	0.44	1.91	0.06	/
	No	3.29	0.50			

*p < .05. **p < .01. ***p < .001.

In summary, nearly half the participants responded that they didn't know the concept of inclusive education. 78.5% of teachers thought that they didn't receive any training on inclusive training. In addition, 43.5% of teachers perceived that they didn't have a resource teacher in their schools.

The majority of teachers considered that schools have inclusive values to develop inclusive education. Most of them agreed that t of them agreed that "Everyone is made to feel welcome"; "Students help each other"; "Students are equally valued". And teachers had positive attitudes toward inclusive education. They generally agreed that "Staff, governors, students and parents/carers share a philosophy of inclusion"; "Staffs seek to remove barriers to learning and participation in all aspects of my school"; "My school strives to minimize all forms of discrimination".

A wide range of participants supposed that their school had inclusive management to enhance inclusive education. Most of them agreed that "Staff appointments and promotions are fair in my school"; "All new students are helped to settle into my school"; "All forms of support are co-ordinated in my school"; "'Special educational needs' policies are inclusion policies in my school"; "Barriers to attendance are reduced in my school"; "Bullying is minimised in my school". In addition, they mainly perceived that the schools had an inclusive environment to promote inclusion in education. Because they agreed that "Schools seeks to admit all students from its locality"; "School makes its building physically accessible to all people"; "School arranges teaching groups so that all students are valued".

More than 90% of teachers thought nine inclusive teaching strategies were used in their classrooms. From the last open questions in the teacher questionnaire, the researcher found that the teaching strategies of collaborative learning, individualized teaching, and universal design for learning are more often used than other teaching strategies.

The researcher conducted two ANOVA tests and two independent sample t-tests to further analysis the data. Later, the researcher found that there were significant differences among teachers of different subjects in the dimension "values and attitudes",

among different titles in all dimensions, and among teachers with and without teacher training in the dimension "management and environment". Moreover, there is a significant difference in the dimension "management and environment" among primary teachers with and without having a resource classroom in their school.

1.2. Findings of the student questionnaire

The general mean and standard deviation of each dimension and overall level

Table 59 shows that the overall mean of the three dimensions is 3.286 (between 'slightly agree' and 'definitely agree'), and the standard deviation is 0.408. The mean of dimensions 'values and attitudes' and 'management and environment' are higher, but the mean of dimension 'teaching and instruction' is the lowest. That is, schools have inclusive values, and students have positive attitudes toward inclusive teaching strategies, but the use of inclusive teaching strategies needs to be improved.

Table 59 Mean, Standard Deviations of each dimension and the overall level

Dimension	M	SD
D1	3.310	0.500
D2	3.318	0.449
D3	3.257	0.467
D	3.286	0.408

Note. 1 =definitely disagree, 2=slightly disagree, 3= slightly agree, 4 =definitely agree.

Findings of three dimensions

Table 60 presents the results of the descriptive statistics in terms of the mean and standard deviation of the frequency of the dimension "values and attitudes" of the students. There are two critical data. The mean (3.70) of item 3, "*My teachers expect me to always try my best*" is relatively high. It indicates that an overwhelming majority of students think their teachers have high expectations for them. However, the mean (2.50) of item 5, "*People from the community come to our school and classroom*" is

very low. This implies that the participation and support of the local community are not sufficient.

Table 60 Mean, Standard Deviations in the dimension "values and attitudes"

Items of dimension "values and attitudes"	M	SD	N
1. I like to go to school.	3.48	.705	730
2. My teachers treat everyone friendly in my class.	3.46	.704	730
3. My teachers expect me to always try my best.	**3.70**	.562	730
4. I am happy to have students from different backgrounds in my class, such as students with special educational needs.	3.35	.768	730
5. People from the community come to our school and classroom.	**2.50**	.977	730
6. My family sometimes comes to participate in our activities.	3.37	.663	730

Table 61 shows that the mean of items 7, 8, 9, 10, 11,12, and 13 is more than 3.2. It is between the "sightly agree" and "definitely agree". It demonstrates that students think they have inclusive school management and environment. More importantly, the mean of item 14 is 2.50, between the "slightly disagree" and "slightly agree". Specifically speaking, 393 (53.83%) students agree, *"Some of the children in my class call others by unkind names".* Furthermore, the mean of item 15 (1.79) is between "definitely disagree" and "slightly disagree". In other words, most students disagree that they were bullied. A small number of students (19.17%) think they were bullied in their playground. In summary, schools have inclusive school management and environment to implement inclusive education.

Table 61 Mean, Standard Deviations in the dimension "management and environment"

Items of dimension "management and environment"	M	SD	N
7. My teachers like to listen to my ideas.	3.28	.720	730
8. My teachers like to communicate with each other.	3.48	.602	730

9. My teacher likes to help me with my work.	3.47	.595	730
10. My teachers try to help students who have problems.	**3.57**	.551	730
11. I can get learning support from the psychologist, physical therapist, special education teacher, etc.	3.37	.667	730
12. I think our classroom rules are fair.	3.48	.622	730
13. When children in my class quarrel, the teacher sorts it out fairly.	3.49	.611	730
14. Some of the children in my class call others by unkind names.	**2.50**	.989	730
15. Sometimes, I am bullied in the playground.	**1.79**	.883	730

As Table 62 indicates, the mean of all the items is more than 2.80, between "slightly disagree" and "slightly agree", not close to "slightly agree". Therefore, in general, students think their teachers use inclusive teaching strategies in their teaching and instruction, but not so often. Some students (9.86%) definitely disagree that "*I can move my desk for group work*". It seems that the learning arrangement is not flexible enough to adapt. The item "*My teachers provide us with different activities or materials in class*" (M=3.23, SD=0.757) demonstrates that teachers regularly use curriculum differentiation. The means of items 18, 19, and 20 are more than 3.40. This means that teachers frequently use universal design for learning to support all student learning. Item 21 (M=3.37, SD=0.691) reveals that differentiated instruction is constantly used in classrooms. Nearly one-third of students (33.29%) disagree, "*Sometimes there is more than one teacher in my class.*" That is, co-teaching is rarely used in their classes. The item "*Sometimes, I do classwork in pairs with a friend*" (M=3.51, SD=0.560) shows that their teachers repeatedly use collaborative learning to guide students in learning from each other. Similarly, items 24 (M=3.49, SD=0.577) and 25 (M=3.46, SD=0.610) imply that the teachers frequently use peer tutoring. A couple of students (9.45%) think there are no special plans for students with special educational needs in their classroom. Several students assume that they can assess the learning of their classmates**.** But they are not always allowed to assess the learning of their classmates.

It seems that teacher assessment strategies should be improved. Despite many obstacles to implementing inclusive practices, some teachers still apply different inclusive teaching strategies or methods to accommodate students' diverse needs. In summary, while these inclusive teaching strategies-co-teaching, individualized teaching, and assessment strategies - are not often used in the classrooms, curriculum differentiation, universal design for learning, differentiated instruction, collaborative learning, peer tutoring and structured teaching are relatively frequently used.

Table 62 Mean, Standard Deviations in the dimension "teaching and instruction"

Items of dimension "teaching and instruction"	*M*	*SD*	*N*
16. I can move my desk for group work.	**2.87**	.882	730
17. My teachers provide us with different activities or materials in class.	3.23	.757	730
18. My teachers provide many ways for me to learn such as the Internet, video, audio, and so on for me to learn.	3.40	.666	730
19. I can show what I learn in different ways, such as presentations, reports, projects, tests, etc.	3.47	.599	730
20. My teachers encourage me in multiple ways.	**3.52**	.593	730
21. My teachers sometimes give me activities or materials which I like.	3.37	.691	730
22. Sometimes, there is more than one teacher in my class.	**2.81**	.960	730
23. Sometimes, I do classwork in pairs with a friend.	**3.51**	.560	730
24. I help my friends with their work when they get stuck.	3.49	.577	730
25. My friends help me with my work when I get stuck.	3.46	.610	730
26. There is a special plan (for example, different homework, after-class tutoring) for students with special educational needs in my classroom.	**2.96**	.927	730
27. My teachers present me with a straightforward and visual procedure to help me finish my work.	3.29	.719	730

28. I am allowed to assess my learning.	3.31	.681	730
29. I am allowed to assess my classmates' learning.	**2.90**	.872	730

Significant differences analysis

A T-test and two ANOVA (analysis of variance) tests are used to examine statistically significant differences among different gender, schools, and grades. The ANOVA analysis states the mean, standard deviation, F, p, and η2 of various dimensions and the overall level between the three schools in Table 63. The level of significance p in the dimension of 'values and attitudes' in the three schools is 0.16, greater than 0.05. It suggests that there are no significant differences in the dimension of 'values and attitudes' between different schools. However, the differences between the three schools are statistically significant in the dimension 'management and environments' (*p*=0.00, *η2*=0.023). According to the criteria proposed by Cohen (1992), 0.01 is a small effect, 0.06 is a medium effect, and 0.14 is a large effect. Therefore, this dimension between the three schools has a small effect. After comparison, it is found that the mean score of 'management and environments' dimensions between other schools: W school >T school, W school >H school. In the third dimension, different schools also show significant differences, and this dimension between the three schools has a small effect. Similarly, the analysis above indicates the mean scores of 'teaching and instruction' dimensions: W school >T school, W school >H school after multiple comparisons. Moreover, the overall differences between the three schools are statistically significant, and this dimension between the three schools has a small effect. After multiple comparisons, it is found that the mean scores of overall levels: W school >H school, W school >T school.

Table 63 Means, Standard Deviations, and One-Way Analyses of Variance in three dimensions among the different schools

Dimension	T school		W School		H school		*F*	*η2*	Multiple Comparisons
	M	*SD*	*M*	*SD*	*M*	*SD*			
D1	3.33	0.50	3.33	0.50	3.23	0.50	1.81	0.005	/

								W >T,
D2	3.34	0.42	3.36	0.46	3.17	0.45	8.58***	0.023
								W>H
D3	3.23	0.45	3.31	0.46	3.14	0.48	6.88***	0.019
								W>T,
								W>H
D	3.29	0.39	3.33	0.41	3.17	0.41	7.31***	0.020
								W>T,
								W>H

$^{*}p < .05.$ $^{**}p < .01.$ $^{***}p < .001.$

To find out whether girls and boys show a significant difference in three dimensions, the independent sample t-test is used. According to Cohen (2013), 0.80 is considered a large effect estimate, 0.5 a moderate estimate, and 0.20 a small estimate. Table 64 indicates that male and female students show significant differences in the dimension 'values and attitudes', the girls (M=3.35, SD=0.48) and boys (M=3.27, SD=0.52), (t=-2.22, ρ=0.03, Cohen's d= 0.16) and overall level, the girls (M=3.32, SD=0.40) and boys (M=3.26, SD=0.41), (t=-2.03, ρ=0.04, Cohen's d= 0.15). Therefore, there is a significant difference with a small effect estimate in the 'values and attitudes' dimension and overall level. That is, girls have a more positive attitude toward inclusive education than boys.

Table 64 Means, Standard Deviations, and t tests in three dimensions between the boys and girls

Dimension	Boy	Girl	Boy	Girl	t	p	Cohen's d
	M	*SD*	*M*	*SD*			
D1	3.27	0.52	3.35	0.48	-2.22	0.03	0.16
D2	3.29	0.44	3.34	0.46	-.1.52	0.13	/
D3	3.23	0.47	3.29	0.46	-1.72	0.09	/
D	3.26	0.41	3.32	0.40	-2.03	0.04	0.15

An analysis of variance (ANOVA) is performed to examine whether students with different grades show significant differences in various dimensions and overall levels;

the results are shown in Table 65. The significance level p in all dimensions among different grades is 0.35, 0.88, and 0.10, larger than 0.05. It suggests no statistically significant differences in the dimensions among different grades.

Table 65 Means, Standard Deviations, and One-Way Analyses of Variance in three dimensions among different grades

Dimension	Grade 4		Grade 5		Grade 6		*F*	*p*
	M	*SD*	*M*	*SD*	*M*	*SD*		
D1	3.36	0.51	3.30	0.48	3.29	0.52	1.04	0.35
D2	3.32	0.48	3.31	0.43	3.33	0.46	0.12	0.88
D3	3.33	0.51	3.23	0.44	3.24	0.48	2.31	0.10
D	3.33	0.44	3.27	0.38	3.27	0.43	1.34	0.26

To sum up, the student thought their school had inclusive values to accommodate students. Because most of them agreed that "I like to go to school"; "My teachers treat everyone friendly in my class"; "My teachers expect me to always try my best". However, the participation of the local community is not sufficient to develop inclusive education. In terms of attitudes, many students have positive attitudes toward inclusive education. Because most of them agreed that "I am happy to have students from different backgrounds in my class, such as students with special educational needs".

In the dimension of "management and environment", students think they have inclusive school management.　They mainly perceived that "My teachers try to help students who have problems"; "I can get learning support from the psychologist, physical therapist, special education teacher, etc.". In addition, the students considered that their schools had an inclusive environment to foster inclusive education. The majority of students thought, "My teachers like to listen to my ideas"; "I think my classroom rules are fair". And a small number of students supposed that they were bullied in their playground. It implied that the school management still needed to be improved to cater for all.

In regard to inclusive teaching strategies, students thought that teaching strategies were

used to meet students' diverse needs, but not so often. Furthermore, the learning arrangement is not flexible enough to adapt. Teachers regularly use curriculum differentiation, universal design for learning, differentiated instruction, collaborative learning, and peer tutoring to support all student learning. However, the teaching strategies of co-teaching, individualized teaching, and assessment strategies were rarely used.

A T-test and two ANOVA (analysis of variance) tests are used to examine statistically significant differences among different gender, schools, and grades. It was found that the three schools are statistically significant in the dimension "management and environments", "teaching and instruction". After comparison, W school is the most inclusive school among the three sample schools. Moreover, the girls have more positive attitudes toward inclusive education.

2. Qualitative phase

2.1. Findings from teacher interviews

The interviews were carried out in the schools. As shown in Table 66, the analysis followed the three dimensions. The sub-categories were summarized into the main dimensions.

Table 66 Dimensions of conceptual framework in interview analysis

Dimensions (categories)	Content
Attitudes and values	Concept, attitudes, respect, equity, diversity, facilitators, and barriers.
Management and environment	Policies, support, collaboration, communication and discrimination
Teaching and instruction	Inclusive teaching strategies

Values and attitudes

Most of the participants know the concept of "inclusive education". However, they

express that they only heard it, but they don't understand the meaning of it or often feel doubt about the concept. When the researcher asked, "do you know inclusive education?". A few teachers even answered, "do you mean multi-discipline?". Fortunately, two participants explain the concept clearly.

> My understanding is that some children who look different also go the regular class, and schools help them keep up. That is to say, they can have their appropriate development. (W1)

Yet, this respondent thinks inclusive education has little effect on students with special educational needs. In senior grades, these students with special educational needs would cause great trouble for others.

> A big problem that inclusive education brings is that teachers will put a lot of energy into these children, but in fact, they have not changed too much. It can only be said that the ideal state is to keep it unchanged, right? However, the higher his grade, the more trouble he causes to other students, so inclusive education is really needed to explore more. (W1)

In terms of attitudes toward inclusive education and equity, they have different perspectives. Some teachers have positive attitudes toward inclusive education. They think that students with special educational needs should attend regular schools, in particular when they are young. Schools, teachers, and students should welcome them and don't exclude them.

> In fact, some children at different ages will have some terrible and abnormal problems due to their psychological development and school education, as well as the influence of family education. As long as we deal with them properly, timely, and effectively, let the children accept it, and let the classmates accept it. I think inclusive education is a good idea. Let him into the regular class, he becomes part of the collective, do not exclude him. (W3)

Nevertheless, some parents don't agree that students with special educational needs

learn with their children. It is one of the greatest barriers to implementing inclusive education in regular schools. In addition, students without special educational needs think that there is the inequitable treatment between them and students with special educational needs.

> Some parents of other normal children would think it's inequitable, "why my child should study with such a child" …Because this child is very sensitive when others glance at him, he will feel that it has hurt him. So, you certainly can't criticize him in the same way as other children, but to those normal children, they may think it inequitable. (H3)

The implementation of inclusive education meets more challenges in Chines primary schools. Teachers express that students with special educational needs cannot keep up with the pace due to the large class sizes and exam-oriented education system.

> Because of the large class sizes, I think it is very difficult to implement inclusive education. It is difficult for students with special educational needs to keep up with the pace in such a large class, and they will usually be ignored due to the exam-oriented education system here. (H9)

It comes to diversity, most participants think there are pros and cons. Some teachers perceive that students benefit from learning together with students with special educational needs. They will learn to respect others and embrace diversity. It is a good opportunity to lead an inclusive society. However, other teachers claim that students with special educational needs will have a negative influence on other students, especially in the management of bad behavior.

> It is an opportunity to learn to get along with different people… But some bad behavior habits of this child may affect them. (H6)

Some teachers consider that there is no benefit for students with and without special educational needs because students with special educational needs don't learn in the classroom, and they will interrupt the teaching when having immediate emotional

problems.

> This kind of special student sits in the class. But he can't keep up with our speed, and he can't enter into the atmosphere of our entire class. Sometimes he gets emotional outbursts, which means we have to stop teaching. (W9)

For the facilitators to promote inclusive education, H school has a resource classroom that often provides students with special educational needs with some support. The school sometimes asks for professional guidance for the learning of students with special educational needs.

> We have a resource classroom in our school and often have some lessons for students with special educational needs to provide some tutoring. In addition, the school will invite some professional teachers to have a class for them. (H9)

One teacher mentions that teachers need to understand the students with special educational needs and help them in accordance with their needs. For example, teachers need to remind students with ADHD to listen to them.

> I think it is important that you understand the character of the students with special educational needs. You may have to be a little more careful about him. Usually, in class, pay more attention and more reminders. And I often treat him the same as other students.　(H10)

Another participant has a similar opinion. Teachers should not treat students with special educational needs differently. Students with special educational needs should be respected. Teachers pay attention to their individual differences and learning outcomes.

> Don't label him, whether he is a special child or our poor student. We don't say that, it's all the same. But respect him, or her, not only the learning situation and progress of the class but also her individual differences should be paid attention to. (W3)

With regard to barriers to promoting inclusive education, they point out different aspects. The frequent answers are large class sizes, insufficient resources, shortage of professional teachers, lack of professional teacher training on inclusive and special education, and inadequate parental engagement and involvement.

In summary, most teachers had heard but didn't understand the concept of inclusive education. They expressed that they might be familiar with LRC implementation. Some participants from the interview had positive attitudes toward inclusive education, but other teachers had negative attitudes toward it. They were worried about the development of students with special educational needs due to their limited knowledge and skills in including them in the classroom. They thought that some students with special educational needs, such as students with ASD, should go the special schools to receive suitable education under the guidance of teachers' professional support.

Management and environment

In order to promote inclusive education, it is essential to create an inclusive campus atmosphere. Everything at the school is student-centred, and students have a strong sense of ownership and belonging to the school.

> There are various roles on the campus, allowing students to act in the C position and be the little host of the school. Let each child grow up, and indeed each child has different needs. I think the core is student-oriented… Never forget that students come first. (W1)

Additionally, leadership for inclusion is considered an important factor in enhancing the implementation of inclusive education in schools. The concept of principal is significant and crucial to develop effective inclusive practices.

> Our principal worked very hard on inclusive education before coming to our school…She is quite patient with children with special educational needs… The children call her "furry" principal. (W3)

But some participants respond that they don't have good methods to create an inclusive

and safe environment. They can only keep educating other students to accept students with special educational needs. Teachers think they don't have the competency to promote the learning of students with special educational needs. Students with special educational needs also need support from families and other professionals.

> To be honest, there is little thing we can do for front-line teachers. It's not that we don't want to do it, but our knowledge or skills is actually not enough, or our ability is also limited. We have intentions, but we may not be able to exert ourselves. I think we may still need to help him through some schools, and families, including a psychologist and social workers. (W2)

In terms of support and collaboration with others, the majority of participants argue that the school cannot provide professional support on inclusive and special education, such as no special education teacher. Thus, there are few opportunities to collaborate with other professionals. When students with special educational needs make some troubles, they usually solve them by themselves or ask for help from the psychology teacher or school leaders. Especially, it comes to parental support and cooperation, participants frequently expressed that the parents are unwilling to cooperate.

> Talking about their children with their parents remains taboo. One of the greatest difficulties we have when facing these students is that their parents are unwilling to admit that their children are special, and he does not want their children to be labeled. In fact, we don't mean to label him, but we found such a problem and suggested that he see a psychiatrist to be more professional and helpful to him, but his parents are unwilling, and most of them are unwilling. (W9)

All in all, in terms of the dimension "management and environment", teachers from the interview considered that they had less inclusive management and environment. They had a wide range of barriers to developing inclusive education, such as limited resources and support, big class sizes, insufficient teacher training, and lack of parent participation in student learning. They thought that it was challenging to meet all students' needs, especially during lesson time. The teachers sometimes tutored the

students after class.

Teaching and instruction

Teachers have to adapt their teaching strategies to accommodate students' needs. In this study, the researcher focuses on nine inclusive teaching strategies: curriculum differentiation, universal design for learning, differentiated instruction, co-teaching, collaborative learning, peer tutoring, individualized education plan, structured teaching, and assessment strategies. Even though some participants, especially young ones, don't have a clear understanding of inclusive education, they start to carry out some inclusive teaching strategies because they want to help students with special educational needs to learn.

Curriculum differentiation

All participants said they could adapt their curriculum according to the student learning and level of gain. Many teachers have two classes. They will adapt the curriculum with regard to the different classes.

> For example, the progress of Class Three will be slightly slower because the student in this class does not work so hard. For a certain teaching content, 1-2 lessons will be added. Like other classes will not. (W5)

One teacher thinks that he can adjust teaching requirements in a physical education class due to this subject's features and students' different characteristics.

> At least adjust your requirements to him. Especially in a physical education class, everyone has different physical conditions, talents, and different areas of expertise. One of the things I teach today, it's impossible to ask all kids to be at the same level. There must be different children with different requirements. As long as he is improving every day, that's fine. (W8)

Universal design for learning

All the participants think they present the information in different ways. PowerPoint

(PPT) is the main tool. They also use video, hands-on products, experiments, and games to present their teaching content. The students can demonstrate their learning and growth in multiple ways, such as individual presentations, a painting, a picture, or a show to show their learning process and achievement.

Furthermore, the ways perhaps differ according to the different subjects. For example, the Science teachers may ask two or three students to work together and do an experiment. However, they have a role play or competition in a Chinese class. Indeed, participants look for different ways to motivate students. The most common way is oral praise in front of all the students. W school has a special and attractive praise mechanism called "Smile bank". There are a fixed number of "smile stickers" in the bank every year. The teachers use the "smile stickers" to praise the students when they have a good performance or behavior. The students collect the stickers. When they have enough stickers, they can have dinner with their teachers, or they work as the principal for a day, and so on.

Differentiated instruction

Most of the participants use differentiated instruction in the homework, not during their class teaching. They design the lessons according to the majority of students' needs. The class time is precious and short. For example, a science teacher perceives that she has different requirements for distinct students under the national curriculum standard.

> For kids who are able to do it, I will ask them to make a product. For those that cannot be done by hand, it is enough to meet the requirements of the curriculum standard. So, in the homework and practice, the excellent children will ask them to do experiments, and the children with lower levels can complete the homework. (H2)

For students with special educational needs, teachers may assign easier homework. And if they complete the homework, the teachers will praise them and enhance their self-confidence to learn.

We may have other children do some difficult homework, but he will reduce the difficulty. If he has reached the basics, he will be praised, and his self-confidence can be built up. Otherwise, he would lose a lot of interest in learning. (W6)

Co-teaching

In terms of co-teaching, all the teachers said they didn't have the opportunity to teach together with another teacher. But they can discuss the lesson design with teachers with rich teaching experiences during the preparation process or after the class. In China, there is a Teaching and Research Group for every subject per school. The group supports the teachers in preparing an excellent lessons and reflecting on the lessons to become excellent teachers. It is an effective way to promote teacher professional development. The Group member usually have regular meetings every week and regular teaching or research activities.

Collaborative learning

Collaborative learning is the most commonly used inclusive teaching strategy. All the participants use this strategy to support student learning and help students learn from each other. Teachers note that there are some skills to use this strategy. This group is heterogeneous, with different backgrounds and abilities. The leader of the group is key to using this strategy successfully. Everyone has their work to support their learning by ensuring their responsibilities during the process of collaboration. When making a presentation, the teacher first asks the poor students to speak out.

> In my classes, I mainly use a group of 4 children in front of and behind a seat, and there is a leader. That is, the learning ability is relatively strong, and some moderately poor students are added to it. For some issues, I will specify that poor students must first express their opinions. Because as soon as an excellent student expresses his opinion after the child listens to it, he thinks that the excellent student's opinion is definitely right, and he has no own thinking and dares not express anything. Even if their poor students are wrong, at least there are better students to correct them. I'll walk down and listen, not every group, maybe two or

three groups. But as children get older, they may be less willing to speak because of their faces. (W2)

Peer tutoring

For peer tutoring, most of the participants say, they like to use this strategy. Some teachers ask two students as a group to learn and make progress. When two students learn well, teachers will encourage both of them.

"One belt one". The performance of the two students will determine whether they have improved, and the best tablemate will also be selected. If they are set up in groups, one of the two tablemates will have better scores, and the other will have lower scores. This is a one-for-one approach. Anything that takes practice will work together, such as reading. When your performance is nice, not only do you have to do well, but you also have to help others. You can only be better if you both do well together. (W6)

Some teachers have doubts if peer tutoring has benefits for students with and without special educational needs. For young students, teachers don't use this strategy because they may not manage themselves well.

Individualized teaching

The participants in W schools think they don't make individualized education plans for students. Due to the large class sizes and limited time, the teachers often ask poor students to leave to finish their learning tasks after class. But they don't have a special plan for them. In H school, a special education teacher who teaches in the special class makes individualized education plans for students with special educational needs. Yet the plan is short-term.

Do some evaluation of him first. After the assessment, he will be given an IEP plan based on one of his zones of proximal development…My plans are short-term, not long-term. Because there are many uncontrollable factors, for example, some parents may cooperate with you now but will not be willing to cooperate next

semester. (H12)

Structured teaching

This is another teaching strategy that the participants don't use. One participant said,

> Structured teaching is aimed at young children and is generally used more for children with autism. There are very few here, and there are almost none. I don't use this teaching strategy. (H12)

Assessment strategies

The assessment usually includes the daily performance, midterm scores, and final scores. The students can assess themselves, but they often give low scores. The assessment of student learning is based on the test, feedback from the homework, and teachers' observation of daily performance.

> Generally speaking, feedback is based on their homework. There are also the test scores, which we generally use. I observed, and from their homework feedback, I could know their gain roughly. I think that most kids can handle it. (H7)

Some teachers also use formative assessment.

> There are several evaluations: unit exams, homework, a math quiz at the midterm or final, and a final exam, depending on the weight. (H10)

To sum up, in the dimension of "teaching and instruction", teachers mentioned that the teaching strategies of curriculum differentiation, universal design for learning, and collaborative learning were often used; differentiated instruction was used in students' homework; some teachers don't like to use peer tutoring for young children; structured teaching and co-teaching were not used; individualized teaching, assessment strategies are not often used.

3. Triangulation of the results

This study used an explanatory sequential mixed methods design. Creswell & Plano

Clark (2018) stressed that the integration of the quantitative and qualitative results was indispensable and essential for mixed methods research. By combing the quantitative and qualitative methods, mixed methods research can offer new knowledge that is not solely from the quantitative or qualitative results and over the total of the two parts. Researchers should need to consider two integrations in the explanatory sequential mixed methods design, as shown in Table 67. One is conducted between the data analysis in the quantitative phase of the research and the data collection in the qualitative phase. The purpose of the first integration is to "connect the results from the initial quantitative phase to help plan the follow-up qualitative data collection phase" (Creswell & Plano Clark, 2018, p. 140). The other occurs when the researchers finish the qualitative data collection, they need to combine the two types of data and discuss how qualitative results help explain quantitative results in depth.

Table 67 Linking integrative data analysis and interpretation to explanatory sequential design

Intent of integration	Use sequential integration by connecting the qualitative data and results to explain the quantitative results
Primary data analysis integration procedures	Obtain quantitative statistical results and identify results that need further explanation
	Identify a purposeful qualitative sample and data collection questions that can best explain the quantitative results
	Collect and analyze the qualitative data
	Represent the connected results with a joint display
	Interpret the joint display by noting the value added by the qualitative explanations
Representation of the integration results	Present a table that connects the quantitative results with the qualitative data collection strategy
	Compose a joint display that arrays the quantitative results and connects qualitative results

Interpretation of integration results	Consider the evidence for how the qualitative results help to explain quantitative results

Source: Creswell & Plano Clark, 2018, p. 334

According to the suggestions of Creswell & Plano Clark (2018), the researcher linked the quantitative and qualitative findings and conducted the triangulation of the results. Table 68 presented a joint display that brings two types of data together to produce new and deep insights (Guetterman et al., 2015) in this study.

Table 68 A joint display representing connected results for an explanatory sequential design

Phases	Quantitative phase		Qualitative phase
Dimension	Teacher questionnaire	Student questionnaire	Teacher interview
Values and attitudes	All students are equally valued. There are high expectations for all. A partnership between staff Remove barriers to inclusion Minimize discrimination Positive attitudes	W school is the school that has the most inclusive values and positive attitudes	Most teachers heard but didn't understand the concept of inclusive education. They are more familiar with LRC implementation.
Management and environment	Less inclusive management and environment	W school is the school that has inclusive management and environment Student-centered Inclusive policies	Less inclusive management and environment Limited resources and support A wide range of barriers Big class sizes Insufficient teacher training Lack of parental participation
Teaching and	All inclusive teaching strategies are	Curriculum differentiation, universal	Curriculum differentiation, universal

instruction used	design for learning, differentiated instruction, collaborative learning, peer tutoring, and structured teaching are used; co-teaching, individualized teaching, and assessment strategies are not used.	design for learning, and collaborative learning was used; differentiated instruction was used in students' homework; some teachers didn't like to use peer tutoring; structured teaching and co-teaching were not used; individualized education plans, and assessment strategies are not often used.

This joint display connects the quantitative results to qualitative results and helps understand the quantitative results deeply. It was found that the results have been more reliable from the quantitative phase to the qualitative phase. In the dimension of values and attitudes, the quantitative findings showed that the sample schools had positive attitudes toward inclusive education. However, the qualitative findings indicated that most teachers heard but didn't understand the concept of inclusive education. In addition, some teachers had negative attitudes toward inclusive education. They claimed that students with or without special educational needs didn't benefit from the implementation of the LRC policy.

In the dimension of management and environment, the questionnaires also showed that the schools had inclusive management and environment. Nevertheless, the interview implied that the school had a wide range of barriers to developing inclusive education, such as big class sizes, limited resources and supports, and insufficient teacher training. In the dimension of teaching and instruction, the quantitative findings revealed that many teaching strategies were used to meet all students' needs. Yet, it was found that a number of inclusive teaching strategies were not adapted to accommodate all in the qualitative phase, such as co-teaching, structured teaching, and individualized education plan.

Chapter 5: Discussion

1. Introduction

This research was to investigate the current status of inclusive teaching strategies in China primary schools. Firstly, the researcher reviewed the literature on inclusive education and inclusive teaching strategies to develop a broad knowledge base to design the instruments and analyze the data. In order to answer the research questions, the researcher used an explanatory sequential mixed methods approach and designed three research instruments: a teacher questionnaire, a student questionnaire, and a teacher interview within two phases. In this Chapter, the discussion is presented.

Salamanca Statement and Framework for Action on Special Needs Education in 1994 endorsed the idea of inclusive education. It has gradually become a global agenda in educational reform in subsequent years (Ainscow et al., 2019; Hernández-Torrano et al., 2020). To call for more countries to implement inclusive education, international organizations issued numerous official statements and documents to promote equitable quality education for every child. For instance, the *Universal Declaration of Human Rights* (UN, 1948, Article 26) stated that 'everyone has the right to education.' Furthermore, the United Nations *Convention on the Rights of Persons with Disabilities* (CRPD) (UN, 2006, Article 24) indicated that 'State Parties recognize the right of persons with disabilities to education.' As one of the state parties, China's National People's Congress ratified the CRPD in 2008 with an essential commitment to inclusion for all.

However, researchers have great problems in developing more functional studies and successful cases of inclusive education in specific contexts (UNESCO, 2020). One of the biggest challenges is how to implement inclusive education within a particular context as a result of the different understandings of inclusive education (Slee, 2006; Florian, 2005). It specifically includes how to understand, implement and apply inclusive education (Kurniawati, 2021), especially concerning teaching methods or strategies (Farrell, 2000). Similarly, Rouse (2009) argued that the key to implementing inclusive education is to provide teachers with opportunities to develop knowledge

(*knowing*), attitudes (*believing*), and teaching strategies (*doing*). In order to embrace differences and meet diverse students' needs, teachers have to develop and use various teaching strategies in inclusive settings. Certain teaching strategies have been identified that are helpful for students with special educational needs in inclusive classrooms: curriculum differentiation, universal design for learning, differentiated instruction, co-teaching, collaborative learning, peer tutoring, individualized teaching, structured teaching, assessment strategies (Davis et al., 2004; Deng et al., 2016; Mitchell, 2014; Tichá et al., 2018; Winter & O' Raw, 2010). On the one hand, it is crucial to support teachers in implementing effective inclusive practices for all students learning in the classrooms. On the other hand, research is seldom focused on how teachers apply inclusive teaching strategies in the context of China. Therefore, this study focuses on the use of inclusive teaching strategies in Chinese primary schools.

In order to facilitate the understanding of the discussion, this section is divided into three sections according to the three principal dimensions: attitudes and values, management and environment, and teaching and instruction.

2. Values and attitudes

"Puts inclusive values at the heart of the development process" (Booth & Ainscow, 2011, p. 9). Inclusive value-equality, participation, community, respect for diversity, and sustainability- is critical to developing inclusive practices. The *Index for Inclusion* is a way of improving schools according to inclusive values (Booth & Ainscow, 2002). The review framework in the Index emphasizes establishing inclusive values. The development of inclusive values and collaborative community is the core of creating inclusive cultures and promoting inclusive education. The *Indicators of Inclusive Schools* also explicitly identified inclusive values and principles. The sample indicators, for example, "Staff, students, and parents share a commitment to creating inclusive learning experiences for all students", and "diversity is valued as an enriching aspect of the school environment", are highlighted the importance of inclusive values. In addition, the researcher argued that inclusive values are critical for the development of inclusive

education and the use of inclusive teaching strategies in the present study because "every learner matters and matters equally" (UNESCO, 2017).

Despite a large number of studies on teacher's attitudes toward inclusive education (Forlin et al., 2009; de Boer et al., 2011; Monsen et al., 2015; Ewing et al., 2018), research on students' attitudes toward inclusive education is limited (de Boer et al., 2012). However, inclusive values and positive attitudes toward inclusive education in schools are the preconditions of implementing any inclusive practices, including using inclusive teaching strategies. Consequently, we included school values and students' and teachers' attitudes in the questionnaire.

The mean of dimension "values and attitudes" are higher in the teacher results. It shows that the sample schools have inclusive values and teachers have positive attitudes toward inclusive education. The children's views are valuable (Wang, 2016; Ainscow & Messiou, 2018; Demetriou, 2019; Messiou, 2019). The student results are derived from student perspectives on inclusive teaching strategies through a reliable and valid questionnaire. The results show that the schools have inclusive values and students have positive attitudes toward inclusive education. Similarly, the student questionnaire also demonstrates that three primary schools have inclusive values and students have positive attitudes toward inclusive education. As a consequence of international advocacy and domestic practices on inclusive education, more regular schools have been building inclusive values and positive attitudes toward inclusive education in China (Ma & Tan, 2010; Mu et al., 2015). Shenzhen, as one of China's special economic zones, increases investment in education to develop an equitable and high-quality education for all. For example, in 2020, Shenzhen's education expenditures reached 85.1 billion yuan, an increase of 18.8%, accounting for more than 20% of fiscal expenditure (Shenzhen Finance Bureau, 2021). It ranks first among first-tier cities in China, and the per-student funding standard is among the top in the country. However, nearly half of the teachers in general primary schools have not heard of the concept of inclusive education. The same finding is from the teacher interview. Many teachers pointed out that although they knew the concept of "inclusive education", they didn't

understand the meaning of it. They are more familiar with the LRC. The finding is in line with other studies (Tan, 2014; Wang, 2016).

Through the literature review, the researcher further explored why teachers had positive attitudes toward inclusive education in case they didn't understand inclusive education. One reason is likely that more and more school-aged children with special educational needs receive education in the regular schools as a result of the implementation of LRC policy around the country. In 2018, 666,000 students with disabilities studied on campus, an increase of 298, 000 people or 81% over 2013 (SC, 2019). Thus, teachers have to accommodate them without sufficient support and competencies. Through the teacher's questionnaire, it found that the sample schools have diverse students with special education needs, such as ADHD students, learning disabilities students, and autistic students. The types of students with special educational needs in regular schools are becoming more diverse.

It seems that another reason is the charitable model of disability in Confucian culture. This model facilitated the acceptance of disabled children. In the teacher interview, many teachers expressed sympathy for disabled children. "I could care more about students with disability, and I ask their classmates to help them if they were concentrating on the lessons or they have a problem with the homework". It is a manifestation of the charitable model of disability which is consistent with the kindness and benevolence in Confucian thinking. Despite their limited capacity, the teachers are making a difference in supporting the student learning with positive attitudes. As Ainscow et al. (2012) argued, it is essential to transform school rounding into a change of values and attitudes in all stakeholders to successfully implement inclusive education.

3. Management and environment

Inclusive school management and environment play a significant role in inclusive practices. In terms of dimension management and environment, the researcher examined the policy, support, collaboration, communication, and discrimination in primary schools. In the *Index for Inclusion*, the dimension "producing inclusive policies"

includes interrelated policies, support, and collaboration for diversity regarding school management and environment towards inclusive education. Loreman et al. (2014) identified 13 indicators to be considered during the development of inclusive education, such as policy, teacher education, resources and finances, school leadership, collaboration, and support. The inclusive policy is a critical element for successful inclusive practice. The European Agency for Special Needs and Inclusive Education (2011) outlines the policy for the development of indicators for inclusive education.

In this study, teacher results indicated that the average score of the dimension "management and environment" was the lowest. However, the finding of the student results indicated that the mean of the dimensions "management and environment" are higher. In the quantitative phase, the researcher also found that it is essential to create an inclusive environment and flexible management for inclusion. The participants in the W schools claim that students like to learn and teachers like to work in their school. Through the analysis of variance (ANOVA) test, the W school is the most favorable towards inclusive education among the three schools because mean scores of the "management and environments" dimension and "teaching and instruction" dimension are significantly higher than the other two schools. We agree with Booth & Ainscow (2011) and Azorín & Ainscow (2018). Inclusion is an unending process, and every school makes its own process by identifying and resolving contextual barriers. W school is one of the best schools in this district, led by a team of headteachers with inclusive values and attitudes. Everything is student-centered, including the curriculum, school building, teaching activities, etc. The school is well-resourced in inclusive education, with one psychological teacher responsible for managing students with special educational needs. Teachers and students share a philosophy of inclusion and collaborate with each other. Therefore, this school has an inclusive management and environment.

But the participants in H schools in the qualitative phase pointed out that they didn't have methods to create an inclusive and safe environment for all under the limited resources and big class sizes. They could not get enough professional support and had

something little to provide learning support to students with special needs. Consequently, the school management and environment need to be enhanced to promote inclusion in the regular schools.

The national government has been providing tremendous support to the development of inclusive and special education at the policy level, from the 17th National Congress of the Communist Party of China "concerning special education", to the 18th National Congress of the Communist Party of China "supporting develop special education", to the 19th National Congress of the Communist Party of China "establishing good special education system". According to the local government action plan, Shenzhen has recently formulated 25 new measures to promote inclusive and special education for equitable and high-quality education for every child (Shenzhen Government Online, 2021). One of the measures is to build an environment to support inclusive education in society through multiple publicity methods. Another is to strengthen teacher training on special and inclusive education to enhance using of inclusive teaching strategies in local schools.

4. Teaching and instruction

The premise of realizing inclusion is that all teachers are empowered to teach all students (UNESCO, 2020). Inclusive teaching strategies play a critical role in inclusive practices by helping teachers cater to every student in an inclusive school. As a result of more children with a disability enrolling in the regular schools, teachers have to cope with the diversity in the classroom. Inclusive education challenges teachers to develop a large number of teaching strategies. Various range of studies has certified effective teaching strategies to deal with diversity. In this study, we examine the use of nine inclusive teaching strategies in classrooms to promote student learning in Chinese primary schools.

The teacher findings demonstrated that the average score of the dimension "teaching and instruction" in relation to inclusive teaching strategies was the highest. The student finding shows that inclusive teaching strategies are used, but not so often. This finding

resonates with other research in South Africa, Indonesia, and the UK. Despite the challenges to implementing inclusive education and terrible schooling conditions in South Africa, teachers still make a difference in their classrooms to accommodate all students through planning, presentation, and assessment of their lessons (Themane & Thobejane, 2019). Kurniawati (2021) also found that a small number of teachers used effective inclusive teaching strategies in rural Indonesian primary schools with limited knowledge of strategies and big class sizes. When teachers devote themselves to developing a sense of social justice, they can acquire an inclusive pedagogical approach even they face harsh conditions (Pantić and Florian,2015). In addition, teaching strategies such as cooperative learning and peer assistance are equally applicable to regular students and students with special educational needs (Wu, 2017). The researcher found that these inclusive teaching strategies-co-teaching, individualized teaching, and strategies of assessing others- are not often used in the classrooms, but curriculum differentiation, universal design for learning, differentiated instruction, collaborative learning, peer tutoring, and structured teaching are relatively frequently used.

Furthermore, the participants in the qualitative phase said that they could adapt their curriculum according to the student learning needs. Universal design for learning is somehow used. They presented the information in different ways. The students can demonstrate their learning and growth in multiple ways, such as individual presentation, a painting, a picture, or a show to present their learning process and achievement. Indeed, participants look for different ways to motivate students. The most common way is oral praise in front of all the students. However, in fact, most teachers thought that they didn't explicitly understand universal design for learning as a new inclusive teaching strategy under the idea of universal design.

In terms of differentiated instruction, most of the participants use this teaching strategy in the student homework. They believed that they should meet the majority of students' needs during their class teaching. Research reveals that co-teaching is a resource for inclusive schooling (Jurkowski et al., 2020; Scruggs et al., 2007; Shin et al., 2016). Murawski and Swanson (2001) reviewed 89 articles and calculated the effect size, and

found that co-teaching can improve students' scores in reading, language, and mathematics and has an active influence on students' peer acceptance, friendship quality, self-concept, and social skills. European Agency for Special Needs and Inclusive Education (2003) identified co-teaching as one of the most effective teaching strategies. However, the teaching strategies "co-teaching" is not used in these sample primary schools. In China, mainly one subject teacher teaches students in class. Sometimes, there is another person who helps students with disabilities to learn. They are likely the students' parents or a shadow teacher with the principal's permission. Mainly, the students' parents pay for shadow teachers to help their children learn in regular classes. It is more common to see a shadow teacher in the biggest city, such as Beijing or Shanghai.

Collaborative learning is another evidence-based strategy which has been certified as an effective strategy for increasing student participation and academic achievement (European Agency for Special Needs and Inclusive Education, 2003; Mitchell, 2014). This strategy is beneficial for all learners, including learners with disabilities (Dyssegaard and Larsen, 2013). It is noteworthy that heterogeneous grouping is helpful in increasing students' academic achievement (Flecha, 2015). We had similar findings in the quantitative and qualitative phases. Collaborative learning is the most common inclusive teaching strategy in the sample schools and was frequently used to help students learn from teachers.

Peer tutoring has also proven to be an effective strategy in class practices. The underlying idea is that children learn a lot from each other (Mitchell, 2014). Often peer tutors can provide individualized support and help for students with special educational needs because they know each other very well. In this study, we found that some teachers like to use this strategy. But other teachers are not willing to adopt this strategy because some pupils are too young to be able to tutor their classmates, in particular, students in the first grade and second grade.

Individualized teaching is often performed by a special education plan for students'

disabilities according to their learning experience and styles. In the present study, the researcher found that some teachers might provide students with different learning materials, but the individualized plan was not often used for class teaching. Due to the large class sizes and limited time, the teachers often asked some students to leave to finish their learning tasks after class. But they didn't have a special plan for them.

Hattie (2009) conducted a synthesis of 800+ meta-analyses on student achievement by comparing previous research and identified structured teaching as one of the most effective strategies for improving student academic achievement. It uses simple schedules to create specific and clear learning arrangements for students with disabilities. Using this strategy, it is beneficial to reduce students' behavioral problems. Nevertheless, in this study, the researcher found that it was another teaching strategy that the participants didn't use.

In Hattie's meta-study (2009), formative assessment and peer assessment are effective strategies to support children learning, as well. In the teacher results, the participants responded that they used pre-assessment to determine students' prior knowledge and identify their learning preferences and interests. Yet, in the qualitative phase, the teacher thought they didn't have enough time to perform the pre-assessment. And they were similar to the students' characteristics. So, although they didn't conduct a pre-assessment, they knew the students' knowledge and skill levels. In the teacher results, most teachers agreed that their students can self-assess their learning. But in the qualitative phase, one teacher said that the students could assess themselves, but they often gave themselves a lower score. In the teacher results, the participants demonstrated that they used formative assessment to gather student performance during the learning process. Participants in the qualitative phase pointed out that the assessment usually includes the daily performance, midterm scores, and final scores. Consistent findings in the two phases were that: summative assessment was used to assess student achievement at the end of one term.

Kefallinou et al. (2020) and Waldron & McLeskey (2010) emphasized that teachers

should use flexibly different teaching strategies to improve their everyday classroom practice according to the everyday situation and details of daily instructional practices. As Davis & Florian (2004) suggested, a combination of strategies produces more powerful effects than a single strategy. Teachers should employ a variety of inclusive teaching strategies according to students' characteristics and learning styles.

In summary, the sample schools have inclusive values and attitudes toward inclusive education. However, teachers didn't have a clear understanding of inclusive education in the teacher interview. In terms of management and environment, we found that the primary schools need to improve due to the limited resource and support. At last, inclusive teaching strategies were used by the participants, but not so often. The researcher thinks teacher training is a feasible measure to not only the deepening the understanding of inclusive education but also enhance school management into inclusive orientation or increase the use of inclusive teaching strategies in these schools.

Chapter 6: Conclusion

This study examined the current status of inclusive education strategies by analyzing the teacher and student perspectives from Chinese regular primary schools. It was informed by three research questions. These questions were discussed in Chapter 1, explored the research gap with prior studies in Chapter 2, and answered in mixed methods research design in Chapter 3. In Chapter 4, the researcher presented the quantitative and qualitative results and connected the findings together to discuss them with prior literature in Chapter 5. This chapter made a conclusion on three research questions.

1. Answering the research questions

In this section, the researcher will briefly answer the research questions. Three questions are:

RQ1: How are the school values and attitudes toward inclusive education from teachers' and students' perspectives?

RQ2: How are the school management and environment in relation to inclusive education from teachers' and students' perspectives?

RQ3: What inclusive teaching strategies do teachers use to support student learning in regular classrooms from teachers' and students' perspectives?

1.1. Values and attitudes

As Booth (2011) argued, inclusion is related to values into action. "Inclusion as a principled approach to the development of education and society through a framework of inclusive values which provides prompts for detailed action across all areas of a school and its communities" (Booth, 2011, p. 304). Booth (2011) asserted that values as fundamental guides that gave a sense of direction toward inclusion. And he developed a framework of values to promote inclusive education. The Teacher Education for Inclusion project identified the essential skills, knowledge and understanding, attitudes, and values that all student teachers needed. Four core values

relating to teaching and learning were identified as the foundation for developing inclusive education. Hence, the items of dimension "values and attitudes" in the teacher questionnaire, student questionnaire, and interview questions were to explore if the schools have inclusive values and positive attitudes towards inclusive education.

Attitudes are also essential for the development of inclusive education. A large number of studies on teacher's attitudes toward inclusive education (Forlin, Loreman, Sharma & Earle, 2009; De Boer, Pijl, & Minnaert, 2011; Monsen, Ewing, & Boyle, 2015; Ewing, Monsen & Kielblock, 2018), and research on students' attitudes toward inclusive education (De Boer, Timmerman, Pijl, & Minnaert, 2012). Positive attitudes play an important role in inclusive practices. As Guidelines for Inclusion (UNESCO, 2005) noted, "teacher attitudes and tolerance are the vehicles for the construction of an inclusive and participatory society" (p. 17). Negative attitudes are one of the barriers to inclusion that must be removed to improve inclusive education.

In the teacher questionnaire, the majority of teachers considered that schools have inclusive values to develop inclusive education. "Everyone is made to feel welcome"; "Students help each other"; "Students are equally valued". And teachers had positive attitudes toward inclusive education. "Staff, governors, students and parents/carers share a philosophy of inclusion"; "Staffs seek to remove barriers to learning and participation in all aspects of my school"; "My school strives to minimize all forms of discrimination".

In the student questionnaire, the student thought their school had inclusive values to accommodate students. Because most of them agreed that "I like to go to school"; "My teachers treat everyone friendly in my class"; "My teachers expect me to always try my best". However, the participation of the local community is not sufficient to develop inclusive education. In terms of attitudes, many students have positive attitudes toward inclusive education. Because most of them agreed that "I am happy to have students from different backgrounds in my class, such as students with special educational needs".

In the teacher interview, most teachers have heard but didn't understand the concept of inclusive education. They expressed that they might be familiar with LRC implementation. Some participants from the interview had positive attitudes toward inclusive education, but other teachers had negative attitudes toward it. They were worried about the development of students with special educational needs due to their limited knowledge and skills in including them in the classroom. They thought that some students with special educational needs, such as students with ASD, should go the special schools to receive suitable education under the guidance of teachers' professional support.

In conclusion, in terms of attitudes and values, the participants thought they had positive attitudes towards inclusive education, and their schools had inclusive values in the quantitative phases. However, some teachers in the interview had negative attitudes toward inclusive education, and many of them didn't understand the concept of inclusive education.

1.2. Management and environment

School management surrounding curriculum and instruction can lead to effective school practices to accommodate all (Ainscow & West, 2006; Verret & Wei, 2016; Sakiz, 2018). The Framework for Action of the Salamanca Statement has a special section on "school management". It stated that:

> Successful school management depends upon the active and creative involvement of teachers and staff, and the development of effective co-operation and team work to meet the needs of students… Each school should be a community collectively accountable for the success or failure of every student (UNESCO,1994, p.23).

And a friendly environment is also critical for inclusive practices in schools. UN (2016) considered a learning-friendly environment as a core feature of inclusive education. Everyone feels safe and confident to express themselves.

In the teacher questionnaire, many participants supposed that their schools had

inclusive management to enhance inclusive education. "Staff appointments and promotions are fair in my school"; "All new students are helped to settle into my school"; "All forms of support are co-ordinated in my school"; "'Special educational needs' policies are inclusion policies in my school"; "Barriers to attendance are reduced in my school"; "Bullying is minimised in my school". In addition, they mainly agreed that the schools had an inclusive environment to promote inclusion in education. "Schools seek to admit all students from its locality"; "School makes its building physically accessible to all people"; "School arranges teaching groups so that all students are valued".

In the student questionnaire, students thought they had inclusive school management. They mainly perceived that "My teachers try to help students who have problems"; "I can get learning support from the psychologist, physical therapist, special education teacher, etc.". In addition, the students considered that their schools had an inclusive environment to foster inclusive education. The majority of students thought, "My teachers like to listen to my ideas"; "I think my classroom rules are fair".   And a small number of students supposed that they were bullied in their playground. It implied that the school management still needed to be improved to cater for all.

In the teacher interview, teachers from the interview considered that they had less inclusive management and environment. They had a wide range of barriers to developing inclusive education, such as limited resources and support, big class sizes, insufficient teacher training, and lack of parent participation in student learning. They thought that it was difficult to meet the needs of all students, especially during lesson time. The teachers sometimes tutored the students after class.

In conclusion, in regard to management and environment, teachers supposed that their schools had inclusive management and environment, but a small number of students were bullied in their schools in the quantitative phase. The W school had the most inclusive school management and environment among the three schools. In the qualitative phase, they had less inclusive management and environment to promote

inclusive education due to lots of barriers in their schools.

1.3. Teaching and instruction

Inclusive practices finally need to emerge in the classrooms. Though inclusive values and positive attitudes toward inclusive education, and inclusive management and environment, are quite important to boost inclusion in education, more changes in teaching and instruction to promote all student learning needs. As the Salamanca Statement and Framework for Action stated:

> Special needs education should be integrated into the research and development programmes of research institutions and curriculum development centres. Particular attention should be given in this area to action-research focusing on innovative teaching-learning strategies (UNESCO,1994, p. 24-25).

In this thesis, the researcher also focused on "teaching and instruction" for student learning. In the teacher questionnaire, more than 90% of teachers thought nine inclusive teaching strategies were used in their classrooms. From the last open questions in the teacher questionnaire, the researcher found that the teaching strategies of collaborative learning, individualized teaching, and universal design for learning are more often used than other teaching strategies.

In the student questionnaire, students thought that teaching strategies were used to meet students' diverse needs, but not so often. Furthermore, the learning arrangement is not flexible enough to adapt. Teachers regularly use curriculum differentiation, universal design for learning, differentiated instruction, collaborative learning, and peer tutoring to support all student learning. However, the teaching strategies of co-teaching, individualized teaching, and assessment strategies were rarely used.

In the teacher interview, teachers mentioned that curriculum differentiation, universal design for learning, and collaborative learning was often used; differentiated instruction was used in students' homework; some teachers didn't like to use peer tutoring for young children; structured teaching and co-teaching were not used; individualized

teaching, assessment strategies are not often used.

In conclusion, as for inclusive teaching strategies, a majority of teachers in the quantitative phase considered that all of the teaching strategies in this study were used, but the students thought some teaching strategies were used, but not so often. In the qualitative phase, the teachers in the interview expressed that curriculum differentiation, universal design for learning, and collaborative learning was often used. Yet, the researcher thought that most teachers didn't explicitly understand universal design for learning as a new inclusive teaching strategy to provide high-quality teaching for all.

In summary, inclusion has profoundly impacted international educational policies and practices world since the Salamanca Statement (Ainscow et al., 2019). More schools in Shenzhen have inclusive values and positive attitudes toward inclusive teaching. Due to a wide range of barriers to developing inclusive education, many regular teachers still apply different inclusive teaching strategies or methods to accommodate students' diverse needs in their classes, such as collaborative learning and peer tutoring, with the limited and unsound support system in China (Mu et al., 2015). As Davis et al. (2004) suggested, a combination of strategies produces more powerful effects than a single strategy. Teachers should employ a variety of inclusive teaching strategies according to students' characteristics and learning styles to meet their learning needs.

2. Recommendation

According to discussions and findings, the researcher attempted to give some recommendations for the development of inclusive education: improve teaching training for in-serve teachers; emphasize evaluation of teaching quality in inclusive education.

2.1. Improve teacher training for in-service teachers

There is a big existing gap between the increasing number of students being educated in regular schools and regular teachers with low efficacy to accommodate their needs. Teachers have been affirmed to act as a critical role in inclusive practices (Forlin &Lian,

2008; Forlin & Chambers, 2011; Leung & Mak, 2010). Teacher training is one of the most important factors which should measure to develop inclusive education (Loreman, Forlin & Sharma, 2014). However, one of the barriers to inclusive education is insufficient training related to inclusion, curriculum, and strategies to deal with children's special needs (Lian, 2004; Tan, 2014). In this study, the researcher found that more than two-thirds of teachers in primary schools have not participated in teacher training in inclusive and special education. In the teacher interview, many participating teachers answered that they didn't receive training on inclusive education and teaching strategies. Therefore, they have little information on children with disabilities and often have difficulties dealing with student learning problems, especially young teachers.

Planning teachers' pre-service and in-service education programmes has become a crucial priority in promoting inclusive education development and providing quality and equitable education for all (European Agency for Special Needs and Inclusive Education, 2015). International previous studies found that most of the in-service training courses were short-term and focused on attitude, knowledge, and skills (Kurniawati, 2021; De Boer et al., 2014). Yet, follow-up sessions and student outcomes measures are suggested to add to increase training effectiveness.

2.2. Emphasize evaluation of teaching quality in inclusive education

"Promoting the high-quality development of inclusive education and building a new pattern of special education development" (Ding, 2021) is the requirement of Chinese education modernization in the new era. The evaluation of inclusive education is "an important practical activity to promote the development of inclusive education and improve the quality of inclusive education" (Yan et al., 2016). LRC implementation, as the main replacement form of compulsory education for children and adolescents with disabilities in China, increases the enrollment rate and promotes educational equity. Pay attention to the LRC implementation, incorporate the evaluation of inclusive education into the scope of the government's responsibilities, and gradually build a quality management system for inclusive education from the state, to the local, and to the

school. Strengthen the training of inclusive education for education authorities and school leaders, learn the theoretical and practical knowledge of inclusive education, study the Chinese laws and regulations of inclusive education, help them establish the attitudes and values of inclusive education, and gradually infiltrate the values of inclusive education in school management. Incorporate inclusive education into the construction of campus culture, work with parents and communities to create an atmosphere that supports inclusive education for teachers and students, and ensure the holistic development of all children, including children with special education needs.

3. Limitations

While this study used a sequential explanatory mixed method design to examine the current situation of inclusive teaching strategies in Chinese primary schools and analysed both quantitative and qualitative data from teachers' and students' perspectives, there were some limitations in the present study because of the small sample, two research instruments, and research condition.

Firstly, the researcher collected the quantitative data from 200 teachers and 730 students through two questionnaires and qualitative views of 24 teachers in the interview. The sample is small. More perspectives of teachers, students, parents, school leaders, and policymakers in more regular primary schools need to be added to enhance the generality of research findings. Parents are one of the important stakeholders in implementing inclusive practices. "Leadership style and practice facilitate the creation of an inclusive school culture" (Carter & Abawi, 2018, p.3). They found that social justice leadership was critical to implement practices and achieving high-quality educational outcomes for all students (ibid). Undoubtedly, the role of policymakers is also indispensable in boosting inclusive education nationwide. Keeping this limitation in mind, the researcher used the triangulation of different data in distinct phases to gain accurate information.

Secondly, though the research instruments of questionnaires and interviews were used, focus groups and class observation could be added to collect more comprehensive

information on inclusive education and teaching strategies in regular primary schools in future research. Because the focus of this study was teaching strategies, the perspectives from the questionnaires and interviews were not sufficient owing to teachers' bias and unwillingness to tell the researcher reality. Considering this limitation, the researcher called on more teachers and students to participate in the investigation in the first phase and randomly selected the sample according to their characteristics to reach more feasible findings.

Last but not least, due to COVID-19, the researcher didn't have access to one of the primary schools to participate in the qualitative phase. Although the small sample size cannot be generalized to findings relevant to all regular primary schools, the study results likely represent the current situation of inclusive teaching strategies in this district or this city.

4. Future research

Inclusive education is not only enacted in the national policy but also should emerge in the classrooms. On the one hand, a range of inclusive teaching strategies was verified to be useful to accommodate all. On the other hand, some teaching strategies were found not to be used often in Chinese regular classroom. To promote regular primary schools to be truly inclusive, some suggestions for future research on inclusive teaching strategies are proposed.

As a priority of implementing inclusive practices, teacher training for in-service teachers should be highlighted in continuous professional learning. According to the 14th Five-Year Promotion Action Plan on Special Education (MOE, 2021), teacher training on special and inclusive education is an important strategy to enhance Chinese inclusive education. Nevertheless, researchers could conduct some research to know about specific teachers' needs and effective training ways in different regions or cities, or schools before teacher training.

In addition, future research on resources to adapt inclusive teaching strategies could be

carried out. For example, personnel resources might be useful to support teachers in selecting inclusive teaching strategies. Because mainly only one subject teacher has lessons in the classrooms, they don't have the opportunity to choose the teaching strategy of co-teaching.

Furthermore, the effectiveness of these inclusive teaching strategies to achieve student outcomes could be studied in the Chinese context. Even though some teaching strategies are evidence-based to develop inclusive education, research is seldom focused on the effectiveness in a specific context.

References

Abawi, L., & Oliver, M. (2013). Shared pedagogical understandings: Schoolwide inclusion practices supporting learner needs. *Improving Schools*, *16*, 159–174. doi:10.1177/1365480213493711.

Ainscow, M. (1999). *Understanding the Development of Inclusive Schools*. London: Falmer.

Ainscow, M. (2005). Developing inclusive education systems: what are the levers for change? *Journal of Educational Change*, 6(2), 109-124.

Ainscow, M., & Messiou, K. (2018). Engaging with the views of students to promote inclusion in education. *Journal of Educational Change*, 19 (1), 1-17. https://doi.org/10.1007/s10833-017-9312-1.

Ainscow, M., & Miles, S. (2008). Making education for all inclusive: Where next?. *Prospects*, *38*(1), 15-34. doi:10.1007/s11125-008-9055-0.

Ainscow, M., & West, M. (2006). *Improving Urban Schools: Leadership And Collaboration: Leadership and Collaboration*. McGraw-Hill Education (UK).

Ainscow, M., Booth, T., & Dyson, A. (2006). *Improving schools, developing inclusion.* London: Routledge.

Ainscow, M., Dyson, A., Goldrick, S., & West, M. (2012). Making schools effective for all: Rethinking the task. *School Leadership & Management*, 32(3), 197–213.

Ainscow, M., Slee, R., & Best, M. (2019). Editorial: the Salamanca Statement: 25 years on. International Journal of Inclusive Education, 23(7-8), 671-676. https://doi.org/10.1080/13603116.2019.1622800.

Albert, N. M., Trochelman, K., Meyer, K. H. & Nutter, B. (2009). Characteristics associated with racial disparities in illness beliefs of patients with heart failure. *Racial Disparities in Illness Beliefs*, 35, 112-125.

Amor, A. M., Hagiwara, M., Shogren, K. A., Thompson, J. R., Verdugo, M. Á., Burke, K. M., & Aguayo, V. (2018). International perspectives and trends in research on inclusive education: a systematic review. *International Journal of Inclusive Education*, https://doi.org/10.1080/13603116.2018.1445304.

Antonak, R. F., & Larrivee, B. (1995). Psychometric analysis and revision of the opinions relative to mainstreaming scale. *Exceptional children*, 62(2), 139-149.

Azorín, C.& Ainscow, M. (2018): Guiding schools on their journey towards inclusion. *International Journal of Inclusive Education*, 24(1), 58-76. https://doi.org/ 10.1080/13603116.2018.1450900.

Baztan, P., Jorgensen, B., Fernández, J. T., & Baztan, J., (2016). Structural analysis and stakeholder-developed scenarios for the continuous training of secondary school teachers in Barcelona. *Journal for Educators, Teachers and Trainers JETT*, 7 (1), 137-161.

De Beco, G., Quinlivan, S., & Lord, J. E. (Eds.). (2019). *The right to inclusive education in international human rights law*. Cambridge University Press.

Bernard, H. R. (2014). Forward. In S. Dominguez, and B. Hollstein (Eds). *Mixed Methods Social Networks Research*. Cambridge University Press, XVV-XXViii.

Blanco, R. (2009). *Conceptual framework of inclusive education*. In Acedo, C., Amadio, British council. (2022). Equality policy.

Bond, R., & Castagnera, E. (2006). Peer Supports and Inclusive Education: An Underutilized Resource. *Theory Into Practice*, 45(3), 224–229. https://doi.org 10.1207/s15430421tip4503_4.

Booth, T., & Ainscow, M. (2002). I*ndex for inclusion: developing learning and participation in schools.* Centre for Studies on Inclusive Education (CSIE), United Kingdom, England.

Booth, T., & Ainscow, M. (2011). *Index for inclusion: developing learning and*

participation in schools. Centre for Studies on Inclusive Education (CSIE), United Kingdom, England.

Bowen, P., Rose, R., & Pilkington, A. (2017). Mixed methods-theory and practice. Sequential, explanatory approach. *International Journal of Quantitative and Qualitative Research Methods*, 5(2), 10-27.

Boyatzis, R. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.

Boyle, C., Anderson, J., Page, A., Sofia, M. (2020). *Inclusive education global issues and controversies*. Brill.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.

Brennan, W. K. (1985). *Curriculum for special needs*. Milton Keynes: Open University Press.

Bryman, A. (2006). Integrating quantitative and qualitative research. How is it done? *Qualitative Research*, 6, 97–113.

Butler, D. L. (2011). Investigating self-regulated learning using in-depth case study. In B. J. Zimmerman & D. H. Schunk (Eds.), *Handbook of self-regulation of learning and performance* (pp. 346-360). New York, NY: Routledge.

CAST. (2018). *Universal Design for Learning Guidelines version 2.2.* http://udlguidelines.cast.org/?utm_medium=web&utm_campaign=none&utm_source=cast-about-udl

Carrington, S., Saggers, B., Adie, L., Zhu, N., Gu, D., Hu, X., ... & Mu, G. M. (2015). International representations of inclusive education: How is inclusive practice reflected in the professional teaching standards of China and Australia?. *International Journal of Disability, Development and Education*, *62*(6), 556-570.

Carter, S., & Abawi, L. A. (2018). Leadership, inclusion, and quality education for all. *Australasian Journal of Special and Inclusive Education*, *42*(1), 49-64.

Castleberry, A., & Nolen, A. (2018). Thematic analysis of qualitative research data: Is it as easy as it sounds?. *Currents in pharmacy teaching & learning*, 10(6), 807–815. https://doi.org/10.1016/j.cptl.2018.03.019

CDPF. (2012). Introductory Statement at the Meeting of the U.N. Committee on the Rights of Persons with Disabilities on consideration of China's First Compliance Report.

CDPF. (2014). Monitoring Report on Health Situation and Well-off Process of Disabled Persons in 2013. http://www.cdpf.org.cn/sjzx/jcbg/201408/t20140812_411000.shtml

CDPF. (2016). NGOs call for equal education for children with disabilities. http://www.cdpf.org.cn/english/Initiatives/education/201612/t20161222_578487.shtml.

CDPF. (2019). Zhang Haidi's speech: Strengthening the capability of teaching staff and promoting special education—Special Session of Eighth Standing Committee of the 13th National Committee of the Chinese People's Political Consultative Conference.https://www.cdpf.org.cn//xwzx/clyw2/29041dacbf324e37bcea7c834dd78259.htm

CECI. (2017). Counting Every Child In. https://ceciproject.org/wp-content/uploads/2017/08/CECI-Summary-Report.pdf

Chitiyo, J., & Brinda, W. (2018). Teacher preparedness in the use of co-teaching in inclusive classrooms. *Support for Learning*, 33(1), 38-51. https://doi.org/10.1111/1467-9604.12190.

Clarke, V., Braun, V., & Hayfield, N. (2015). Thematic analysis. *Qualitative psychology: A practical guide to research methods*, 222(2015), 248.

Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155–159. https://doi.org/10.1037//0033-2909.112.1.155

Cohen, J. (2013). *Statistical power analysis for the behavioral sciences*. Routledge.

Cohen, L., Manion, L., and Morrison, K. (2007). *Research method in education*. (6th ed.). Routledge.

Committee on the Rights of Persons with Disabilities. (2011). *Concluding observations of the Committee on the Rights of Persons with Disabilities: Spain.* New York, Committee on the Rights of Persons with Disabilities. (Consideration of Reports Submitted by States Parties Under Article 35 of the Convention.)

Committee on the Rights of Persons with Disabilities. (2019). *Concluding Observations of the Committee on the Combined Second and Third Periodic Reports of Spain*. New York, Committee on the Rights of Persons with Disabilities.

Council of the European Union (2018). Council recommendation on promoting common values, inclusive education and the European dimension of teaching. https://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:32018H0607(01)&from=EN.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Creswell, J. W. (2011). Controversies in mixed methods research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (4th ed.), 269–284. Thousand Oaks, CA: Sage.

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Sage publications.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage Publications.

Creswell, J. W., & Plano Clark, V. L. (Eds.), (2011). *Designing and conducting mixed methods research (2nd ed.)*. Thousand Oaks, CA: Sage Publications.

Creswell, J. W., & Plano Clark, V. L. (Eds.), (2018). *Designing and conducting mixed methods research (3rd ed.)*. Thousand Oaks, CA: Sage Publications.

Creswell, J., Fetters, M. & Ivankova, N. (2004). Designing a mixed methods study in primary care. *Annals of Family Medicine*, 2, 7-12.

CSIE. (2002). *Index for inclusion: developing learning and participation in schools.* Centre for Studies on Inclusive Education, United Kingdom, England.

D'Amico, J. (2010). *Differentiated instruction for the middle school science teacher: Activities and strategies for an inclusive classroom*. San Francisco, CA: Wiley.

Darling-Hammond, L. (2021). Defining teaching quality around the world. *European Journal of Teacher Education*, 44:3, 295-308, https://doi.org/10.1080/02619768.2021.1919080.

Darling-Hammond, L., & Burns, D., Campbell, C., Goodwin, A. L., Hammerness, K., Low, E. L., Mclntyre, A., Sato, M., Zeichner, K. (2017). *Empowered educators: How high-performing systems shape teaching quality around the world.* San Franciso, CA: Jossey-Bass.

Darling-Hammond, L., & Lieberman A. (2012). *Teacher education around the world: Changing policies and practices*. New York, NY: Routledge.

Darling-Hammond, L., & Snyder, J. (2000). Authentic assessment of teaching in context. *Teaching and teacher education*, 16(5-6), 523-545.

Darrow, A. A., & Adamek, M. (2018). Instructional strategies for the inclusive music classroom. *General music today*, 31(3), 61-65.

Davis, P., & Florian, L. (2004). Searching the literature on teaching strategies and approaches for pupils with special educational needs: knowledge production and synthesis. *Journal of Research in Special Educational Needs*, 4(3), 142-147.

Davis, P., Florian, L., & Ainscow, M. (2004). *Teaching strategies and approaches for pupils with special educational needs: A scoping study*. Department for Education and Skills.

de Boer, A., Pijl, S. J., & Minnaert, A. (2011). Regular primary school teachers' attitudes towards inclusive education: A review of the literature. *International Journal of Inclusive Education*, 15, 331–353. https://doi.org/10.1080/13603110903030089.

de Boer, A., Timmerman, M., Pijl, S. J., & Minnaert, A. (2012). The psychometric evaluation of a questionnaire to measure attitudes towards inclusive education. *European journal of psychology of education*, 27(4), 573-589.

DES. (2007). *Inclusion of students with special educational needs: Post primary guidelines*. Dublin: Government Publications.

Demetriou, H. A. (2019). More reasons to listen: Learning lessons from pupil voice for psychology and education. *International Journal of Student Voice*, 5(3).

Deng, M. (2008). The attitudes of primary school teachers toward inclusive education in rural and urban China. *Frontiers of Education in China*, 3(4), 473-492.

Deng M. (2016). *Practice guidebook in inclusive education*. Beijing: Peking University Press.

Deng, M., & Jing, S. (2012). Reflections on the best practice and effectiveness of special education. *Chinese Journal of Special Education*, (9): 3-8.

Deng, M., & Poon-McBrayer, K. F. (2012). Reforms and challenges in the era of inclusive education: the case of China. *British journal of special education*, 39(3), 117-122.

Deng, M., Wang, S. S., Guan, W. J., and Wang Y. (2016). The development and initial validation of a questionnaire of inclusive teachers' competency for meeting special educational needs in regular classrooms in China, I*nternational Journal of Inclusive Education*, 21(4), 416-427.

https://doi.org/10.1080/13603116.2016.1197326.

Deng, M., Wang, S., Guan, W. & Wang, Y. (2016). The development and initial validation of a questionnaire of inclusive teachers' competency for meeting special educational needs in regular classrooms in China. *International Journal of Inclusive Education*, 21 (4): 416–427. DOI: 10.1080/13603116.2016.1197326.

DeSantis, L., & Ugarriza, D. (2000). The concept of theme as used in qualitative nursing research. *Western Journal of Nursing Research*, 22, 351–372. https://doi.org/10.1177/019394590002200308.

Ding, Y. (2021). Promoting the high-quality development of integrated education Construct a new development pattern of special education. *A Journal of Modern Special Education*, (1): 1.

Douglas, S. (2021). *Creating an inclusive school environment*. London, British Council.

Doyle, L., Brady, A. M., & Byrne, G. (2009). An overview of mixed methods research. *Journal of research in nursing*, 14(2), 175-185.

Duran, R. P., Eisenhart, M. A., Erickson, F. D., Grant, C. A., Green, J. L., Hedges, L. V., Schneider, B. L. (2006). Standards for reporting on empirical social science research in AERA publications: American Educational Research Association. *Educational Researcher*, 35(6), 33–40.

Dyssegaard, C. B., & Larsen, M. S. (2013). *Evidence on inclusion. Danish clearinghouse for educational research.* Copenhagen: Department of Education, Aarhus University.

Elder, B. C., Damiani, M. L., & Oswago, B. O. (2015). From attitudes to practice: utilising inclusive teaching strategies in Kenyan primary schools. *International Journal of Inclusive Education*, 20(4), 413-434.

Engelbrecht, P., Savolainen, H., Nel, M., Koskela, T., & Okkolin M. (2017). Making meaning of inclusive education: classroom practices in Finnish and South African

classrooms. *Compare: A Journal of Comparative and International Education*, 47(5), 684-702.

European Agency for Special Needs and Inclusive Education. (2003). Inclusive education and classroom practice: Summary report. Odense, Denmark. https://www.european-agency.org/sites/default/files/inclusive-education-and-classroom-practices_iecp-en.pdf.

European Agency for Special Needs and Inclusive Education. (2010). Teacher education for inclusion-International literature review, Odense, Denmark.

European Agency for Special Needs and Inclusive Education. (2011). Mapping the implementation of policy for inclusive education (MIPIE) - An exploration of challenges and opportunities for developing indicators. Odense, Denmark.

European Agency for Special Needs and Inclusive Education. (2012). Profile of inclusive teachers. Odense, Denmark.

European Agency for Special Needs and Inclusive Education. (2020). 1+5+N: Using a three-level resource room system to promote inclusive education (learning in mainstream classrooms) in China. Odense, Denmark. https://www.inclusive-education-in-action.org/case-study/15n-using-three-level-resource-room-system-promote-inclusive-education-learning

European Union Agency for Fundamental Rights (2020). Fundamental rights report—2020. https://fra.europa.eu/sites/default/files/fra_uploads/fra-2020-fundamental-rights-report-2020_en.pdf.

Ewing, D. L., Monsen, J. J., & Kielblock, S. (2017). Teachers' attitudes towards inclusive education: a critical review of published questionnaires. *Educational Psychology in Practice*, 34(2), 150-165.

Ewing, D. L., Monsen, J. J., & Kielblock, S. (2018). Teachers' attitudes towards inclusive education: a critical review of published questionnaires. *Educational Psychology in Practice*, 34(2), 150-165.

Farrell, M. (2000). 'The Impact of Research on Developments in Inclusive Education.' *International Journal of Inclusive Education* 4(2), 153–162. https://doi.org/10.1080/136031100284867.

Flecha, R. (2015). Successful educational actions for inclusion and social cohesion in Europe. Cham: Springer.

Florian, L. (1998) Inclusive practice: What? Why? and How? In: C. Tilstone, L. Florian and R. Rose (eds.) *Promoting inclusive practice*. London: Routledge.

Florian, L. (2005). Inclusive Practice: What, Why and How? In: K. Topping & S. Maloney (Eds.), *The Routledge Falmer Reader in Inclusive Education* (pp.29–40). Routledge.

Forgacs, R. T. (2012). Strengthening teacher education to achieve EFA by 2015: How are student teachers prepared to adopt inclusive attitudes and practices when they start teaching? Synthesis and analysis of the reviews of pre-service teacher education systems in Bangladesh, Cambodia, China, Lao PDR, Mongolia, Nepal, Thailand and Viet Nam (2008-2011). Consultancy report, UNESCO.

Forlin, C., & Lian, M. G. J. (Eds.) (2008). *Reform, inclusion and teacher education: Towards a new era of special education in the Asia–Pacific Region*. London and New York: Routledge.

Forlin, C., D. Chambers, T. Loreman, J. Deppeler, and U. Sharma. (2013). *Inclusive Education for Students with Disability: A Review of the Best Evidence in Relation to Theory and Practice*. Canberra: The Australian Research Alliance for Children and Youth (ARACY).

Forlin, C., Loreman, T., Sharma, U., & Earle, C. (2009). Demographic differences in changing pre-service teachers' attitudes, sentiments and concerns about inclusive education. *International Journal of Inclusive Education*, 13(2), 195-209.

Friend, M. & Bursuck, W. D. (2009), *Including Students with Special Needs: A Practical Guide for Classroom Teachers (5th ed.)*. Columbus, OH: Merrill.

Friend, M. & Cook, L. (2010). *Interactions: Collaboration Skills for School Professionals*. 6th ed. Columbus, OH: Merrill.

Friend, M., Cook, L., Hurley-Chamberlain, D., & Shamberger, C. (2010). Co-teaching: An illustration of the complexity of collaboration in special education. *Journal of educational and psychological consultation*, 20(1), 9-27.

Friend, M., Reising, M., & Cook, L. (1993). Co-teaching: An overview of the past, a glimpse at the present, and considerations for the future. *Preventing School Failure: Alternative Education for Children and Youth*, 37(4), 6-10.

Fullan, M. (2007). *The new meaning of educational change*. Routledge.

Greene, J. C. (2007). *Mixed methods in social inquiry*. San Francisco, CA: Jossey-Bass.

Guba, E. G. (1990). The alternative paradigm dialog. In E. G. Guba (Ed.), *The paradigm dialog*,17–30. Newbury Park, CA: Sage

Guba, E. G., & Lincoln, Y. S. (2005). Paradigmatic, contradictions, and emerging confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (3rd ed.), 191–215. Thousand Oaks, CA: Sage.

Guetterman, T. C., Fetters, M. D., & Creswell, J. W. (2015). Integrating quantitative and qualitative results in health science mixed methods research through joint displays. *The Annals of Family Medicine*, 13(6), 554-561.

Harris, R., Miske, S., & Attig, G. (2004). *Embracing Diversity: Toolkit for Creating Inclusive Learning-Friendly Environments*. UNESCO Bangkok.

Hattie, J. (2003). *Teachers make a difference-What is the research evidence?* Melbourne: Australian Council for Educational Research.

Hattie, J. (2009). *Visible learning: A synthesis of 800+ meta-analyses on achievement*. Abingdon, OX: Routledge.

Heacox, D. (2004). *Differentiating instruction in the regular classroom: How to reach and teach all learners* (1st edition) (Yang, X. Trans.). Beijing: China Light

Industry Press. (Original work published in 2001).

Hernández-Torrano, D., Somerton, M., & Helmer, J. (2020). Mapping research on inclusive education since Salamanca Statement: A bibliometric review of the literature over 25 years. International Journal of Inclusive Education, 26(9), 893-912. https://doi.org/10.1080/13603116.2020.1747555.

Hoover, A. & Krishnamurti, S. (2010). Survey of college students. MP3 listening: Habits, safety issues, attitudes, and education. *American Journal of Audiology*, 19, 73-83.

Hua, G. (2000). *Teaching for Learning in the Regular classroom*. Beijing: Huaxia Publishing House.

Hua, G. (2001). *Theory of differentiated instruction*. Beijing: Educational Science Publishing House.

Hua, G. (2004). *A Training Book for Teaching in Learning in the Regular Classroom.* Beijing: Huaxia Publishing House.

Hua, G. (2004). *Psychology of Children with Special Educational Needs and How to Teach Them.* Beijing: Higher Education Press.

Hua, G. (2005). Disabled children's Learning in Regular Class and the development trend of such practice. *Educational Research*. (2),65-69.

Hua, G. (2009). *Teaching Strategy of Differentiated Instruction*. Beijing: Beijing Normal university Publishing Group.

Hua, G., & Li, Z. (2006). Implementing differentiating instruction to improve quality of inclusive education. *Chinese Journal of Special Education*, (12): 9-12, 8.

Hua, J. (2011). On the implementation and management of differentiated instruction. *Chinese Journal of Special Education*, (5): 30-33, 45.

Hume, K. (2015). Structured teaching strategies: A series. Article 1: Physical structure in the school setting. *Indiana Resource Center for Autism. http://www. iidc.*

indiana. edu.

Hunt, P. F. (2019). Inclusive education as global development policy. *The Sage handbook of inclusion and diversity in education*, 116-130.

Hunt, P. F. (2020). Inclusive education: Children with disabilities. *Paper commissioned for the 2020 Global Education Monitoring Report*, Inclusion and education.

Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using mixed-methods sequential explanatory design: From theory to practice. *Field methods*, 18(1), 3-20.

Johnson, R. B. & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.

Johnson, R. B. (2012). Dialectical pluralism and mixed research. *American Behavioral Scientist*, 56(6), 751–754.

Johnson, R. B., & Christensen, L., (2014). *Educational research: Quantitative, qualitative, and mixed approaches* (5th ed.). Thousand Oaks, CA: Sage.

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(2), 112–133.

Jurkowski, S., Ulrich, M., & Müller, B. (2020). Co-teaching as a resource for inclusive classes: teachers' perspectives on conditions for successful collaboration. *International Journal of Inclusive Education*, 1-18.

Kanter, A. S. (2017). The right to inclusive education for students with disabilities under international human rights law. Edited by Gauthier De Beco, Shivaun Quinlivan and Janet Lord. *The right to inclusive education in international human rights law* (Cambridge University Press, 2018), Forthcoming.

Kaplan, I., & Lewis, I.(2013a). P*romoting inclusive teacher education: Introduction*. UNESCO Bangkok.

Kaplan, I., & Lewis, I.(2013b). *Promoting inclusive teacher education: Policy*. UNESCO Bangkok.

Kaplan, I., & Lewis, I.(2013c). *Promoting inclusive teacher education: Curriculum*. UNESCO Bangkok.

Kaplan, I., & Lewis, I.(2013d). *Promoting Inclusive Teacher Education: Materials*. UNESCO Bangkok.

Kaplan, I., & Lewis, I.(2013e). *Promoting Inclusive Teacher Education: Methodology*. UNESCO Bangkok.

Kassie, S. B. (2013). Inclusive teaching involving visually impaired students in English language teaching (ELT) settings. Doctor thesis. Andhra University.

Katz J. (2015). Implementing the Three Block Model of Universal Design for Learning: effects on teachers' self-efficacy, stress, and job satisfaction in inclusive classrooms K-12, *International Journal of Inclusive Education*, 19:1, 1-20, https://doi.org/10.1080/13603116.2014.881569.

Kefallinou, A., Symeonidou, S., & Meijer, C. J. (2020). Understanding the value of inclusive education and its implementation: A review of the literature. *Prospects*, 49(3), 135-152.

Kielblock, S. (2018). Inclusive Education for All: Development of an Instrument to Measure the Teachers' Attitudes. [Doctoral dissertation, Justus Liebig University Giessen].

King, N. (2004). Using templates in the thematic analysis of text. In C. Cassell & G. Symon (Eds.), Essential guide to qualitative methods in organizational research (pp. 257–270). London, UK: Sage.

King-Sears, M. (2009). Universal Design for Learning: Technology and Pedagogy. *Learning Disabilities Quarterly*.32 (4): 199-201.

Kiuppis, F. (2014). Why (not) associate the principle of inclusion with disability? Tracing connections from the start of the 'Salamanca Process'. *International Journal of Inclusive Education*, 18(7), 746-761.

doi:10.1080/13603116.2013.826289.

Kortering, L. J., McLannon, T. W., Braziel, P. M. (2008). Universal design for learning: A look at what algebra and biology students with and without high incidence conditions are saying. *Remedial and Special Education*, 29(6), 352-363. doi: 10.1177/0741932507314020.

Kurniawati, F. (2021): Exploring teachers' inclusive education strategies in rural Indonesian primary schools, *Educational Research*, 63(2), 198-211. DOI: 10.1080/00131881.2021.1915698.

Kurth, J. A., &Gross. M. (2014). *The Inclusion Toolbox: Strategies and Techniques for all Teachers.* California: Corwin Press.

Kuyini, A. B., & Desai, I. (2008). Providing Instruction to Students with Special Needs in Inclusive Classrooms in Ghana: Issues and Challenges. *International journal of whole schooling*, 4(1), 22-39.

Kuyini, B. A. & Otaah, P. O. &Mohamed M. B. (2015). *Disability Rights Awareness and Inclusive Education Training Manual*. CEVS8Ghana, GES Special Education Division, & Pathfinders Australia.

Li L., Li Z., & Lian F. (2012). An analysis of the current situation of teacher training in Chinese Learning in the Regular Classroom at county level-A case study of Mojiang and Nanjian counties in Yunnan province. *A Journal of Modern Special Education*. (5):28-30.

Li, H. (2006). Strengthening the study of the teaching capabilities of teachers; improving the teaching quality about Learning in the Regular Classroom-Review on study of teachers for Learning in the Regular Classroom in China in the past twenty years. *Journal of Nanjing Teaching College of Special Education*. (4): 5-8.

Lian, M. (2007). Inclusive education: Theory and practice. *Forum on Special Education in Hong Kong*. (1). 57-74.

Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2011). Paradigmatic controversies, contradictions, and emerging confluences revisited. In N. K. Denzin & Y. S. Lincoln, (Eds.) *The SAGE handbook of qualitative research* (4th ed.), 97–128. Thousand Oaks, CA: Sage.

Lincoln, Y., S. & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.

Lindsay, G. (2007). Educational psychology and the effectiveness of inclusive education/mainstreaming. *British journal of educational psychology*, 77(1), 1-24.

Liu, K. K., & Anderson, M. (2008). Universal Design considerations for improving student achievement on English language proficiency tests. *Assessment for Effective Intervention*, 33, 167–176.

Liu, Q. (2004). The principle of classroom instruction in inclusive education. *Chinese Journal of Special Education*. (4), 5-9.

Loreman, T. (2009). *Straight talk about inclusive education*. CASS Connections, 6(4), 43-47.

Loreman, T., Forlin, C., & Sharma, U. (2014). *Measuring indicators of inclusive education: A systematic review of the literature*. Emerald Group Publishing Limited.

Lv, Y. (2006). Differentiating instruction in the perspective of inclusive education. *Chinese Journal of Special Education*, (1): 9-13.

M., Opertti, R., & Brady, J. (eds.). (2009). Defining an inclusive education agenda: Reflections around the 48th session of the international conference on education. UNESCO-IBE.

Ma, H., Tan, H. (2010). Survey of the status quo of Shanghai teachers for special students Learning in Regular Classes. *Chinese Journal of Special Education*. (1),60-63+82.

Maclean, R. (Ed.). (2017). *Life in schools and classrooms: Past, present and future*.

Gateway East, Singapore: Springer Nature.

Mahat, M. (2008). The Development of a Psychometrically-Sound Instrument to Measure Teachers' Multidimensional Attitudes toward Inclusive Education. *International journal of special education*, 23(1), 82-92.

Malebese, M. L. (2017). A socially inclusive teaching strategy for transforming the teaching of English first additional language. *Perspectives in Education*, 35(2), 16-29.

Matthew, J. C. (2017): The effectiveness of universal design for learning: a meta-analysis of literature between 2013 and 2016, *International Journal of Inclusive Education*, https://doi.org/10.1080/13603116.2017.1325074.

Mertens, D. M. (2003). Mixed methods and the politics of human research: The transformative-emancipatory perspective. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social & behavioral research*, 135-164. Thousand Oaks, CA: Sage.

Mertens, D. M. (2007). Transformative paradigm: Mixed methods and social justice. *Journal of Mixed Methods Research*, 1(1), 212–225.

Mertens, D. M. (2009). *Transformative research and evaluation*. New York, NY: Guilford Press.

Mertens, D. M. (2010). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (3rd ed.). Thousand Oaks, CA: Sage.

Messiou, K. (2017). Research in the Field of Inclusive Education: Time for a Rethink? *International Journal of Inclusive Education*. 21 (2): 146–159. https://doi.org/10.1080/13603116.2016.1223184.

Messiou, K. (2019). The missing voices: Students as a catalyst for promoting inclusive education, *International Journal of Inclusive Education*, 23(7-8), 768-781.

https://doi.org/10.1080/13603116.2019.1623326.

Mitchell, D. (2005). Sixteen Propositions on the Contexts of Inclusive Education. In D. Mitchell (Ed.), *Contextualizing Inclusive Education: Evaluating Old and New International Perspectives* (pp.1–21). Routledge.

Mitchell, D. (2014). *What really works in special and inclusive education: Using evidence-based teaching strategies*. Routledge.

MOE. (1994). Trial Measures of Implementing Learning in Regular Classrooms for Children and Adolescents with Disabilities.

MOE. (2011). Opinions of the Ministry of Education on Vigorously Promoting the Reform of Teacher Education Curriculum.

MOE. (2011a). National Teacher Education Curriculum Standards (Trail).

MOE. (2012). Primary school teacher professional standards (Trial). http://www.moe.gov.cn/srcsite/A10/s6991/201209/t20120913_145603.html

MOE. (2014). Special Education Promotion Plan 2014-2016.

MOE. (2015). Special Education Teacher Professional Standards (Trial). http://www.moe.gov.cn/srcsite/A10/s6991/201509/t20150901_204894.html

MOE. (2016). National Education Statistics 2016. http://www.moe.gov.cn/s78/A03/moe_560/jytjsj_2016/2016_qg/201708/t201708 23_311710.html.

MOE. (2017). Regulation on the Education of People with Disabilities. http://www.moe.gov.cn/jyb_xwfb/xw_fbh/moe_2069/xwfbh_2017n/xwfb_20170 728/170728_mtbd/201707/t20170731_310407.html.

MOE. (2017a). MOE will increase the compulsory education enrollment rate of disabled children and teenagers in China. http://www.moe.gov.cn/jyb_xwfb/xw_fbh/moe_2069/xwfbh_2017n/xwfb_20170 728/170728_mtbd/201707/t20170731_310407.html.

MOE. (2017b). Special Education Promotion Plan II 2017–2020. http://www.moe.gov.cn/jyb_xwfb/xw_fbh/moe_2069/xwfbh_2017n/xwfb_20170728/170728_sfcl/201707/t20170728_310275.html.

MOE. (2019). National Educational statistics in China from 2001-2018.

MOE. (2020). National Education Statistics 2020. http://www.moe.gov.cn/jyb_sjzl/moe_560/2020/quanguo/

MOE. (2020a). The enrollment rate in Chinese special schools increased by 80% during Thirteenth Five-Year Plan. http://www.moe.gov.cn/fbh/live/2020/52763/mtbd/202012/t20201210_504687.html

MOE. (2020b). Guidelines on Strengthening Compulsory Education for Disabled Children and Adolescents. http://www.moe.gov.cn/srcsite/A06/s3331/202006/t20200628_468736.html.

MOE. (2021). 14th Five-Year Promotion Action Plan on Special Education.

MOE. (2021a). China's compulsory education enrolment rate for children with disabilities exceeds 95%. http://www.moe.gov.cn/jyb_xwfb/s5147/202109/t20210927_567367.html.

Monsen, J. J., Ewing, D. L., & Boyle, J. (2014). Psychometric properties of the revised teachers' attitude toward inclusion scale. *International Journal of School & Educational Psychology*, 3(1), 64-71.

Mu, G. M., Wang, Y., Wang, Z., Feng, Y., Deng, M., & Liang, S. (2015). An enquiry into the professional competence of inclusive education teachers in Beijing: attitudes, knowledge, skills, and agency. *International Journal of Disability Development & Education*, 62(6), 571-589. https://doi.org/10.1080/1034912x.2015.1077934.

Mundy, K. (2016). "Leaning in" on Education for All. *Comparative Education Review*,

60(1),1-26. doi:10.1086/684434.

Murawski, W. W., and H. L. Swanson. (2001). A Meta-Analysis of co-Teaching Research: Where are the Data? *Remedial and Special Education.* 22: 258-267. doi:10.1177/074193250102200501.

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative Methods*. https://doi.org/10.1177/1609406917733847.

NPC. (1982). The Constitution of the People's Republic of China.

NPC. (1986). Compulsory Education Law of the People's Republic of China.

NPC. (2018). Law of the People's Republic of China on the Protection of Persons with Disabilities.

NPC. (2021). The Education Law of the People's Republic of China.

O'Brien, T. (2000). Increasing inclusion: Did anyone mention learning? *REACH*, 14, (1). 2 -12.

OECD. (2005). T*eachers matter: Attracting, developing and retaining effective teachers.* OECD Publishing.

OECD. (2010). *Mathematics Teaching and Learning Strategies in PISA*, OECD Publishing. Paris, http://dx.doi.org/10.1787/9789264039520-en.

Pancsofar, N., & Petroff, J. G. (2016). Teachers' experiences with co-teaching as a model for inclusive education.*International Journal of Inclusive Education*, 20(10), 1043-1053.

Pang, W. (2017). Research on the current situation and development of inclusive education for persons with disabilities in China. *Disability Research.* (4):35-43.

Pantić, N., & Florian, L. (2015). Developing Teachers as Agents of Inclusion and Social Justice. *Education Inquiry,* 6 (3): 333–351. https://doi.org/10.3402/edui.v6.27311.

Patton, M. Q. (1987). *How to use qualitative methods in evaluation*. Newbury Park, CA: Sage.

Peel, K. L. (2020). A beginner's guide to applied educational research using thematic analysis. Practical   Assessment,   *Research,   and   Evaluation*, 25(2). https://scholarworks.umass.edu/pare/vol25/iss1/2/

Putnam, J.W. (Ed.). (1998). *Cooperative learning and strategies for Inclusion: Celebrating diversity in the classroom* (2nd ed.). Baltimore, MD: Paul, H. Brookes Publishing Company.

QSR International. (2012). *NVivo Qualitative data analysis (Version 10)*. Melbourne, Australia: QSR International Pty Ltd.

Qu, X. (2019). Inclusive Education in Chinese Primary Schools – A Critical Realist Analysis. [Doctoral dissertation, University College London]. UCL Discovery. https://discovery.ucl.ac.uk/id/eprint/10081111/

Rashid, N., & Tikly, L. (2010). *Inclusion and diversity in education: Guidelines for inclusion and diversity in schools.* Martinez Campos, Madrid: British Council.

Riveros, A., Verret, C., & Wei, W. (2016). The translation of leadership standards into leadership practices: A qualitative analysis of the adoption of the Ontario Leadership Framework in urban schools. *Journal of Educational Administration*.

Rossman, G. B., & Wilson, B. L. (1985). *Numbers and words: Combining quantitative and qualitative methods in a single large-scale evaluation study*. Evaluation Review, 9(5), 627–643.

Rouse, M. (2009). Developing Inclusive Practice: A Role for Teachers and Teacher Education.   *Education   in   the   North*.   16:   6-13. http://birbhum.nic.in/DPSC/reference/79.pdf

Sakiz, H. (2018). Students with learning disabilities within the context of inclusive education: issues of identification and school management. *International Journal*

of Inclusive Education, *22*(3), 285-305.

Save the Children. (2017). Inclusive education seminar in a class survey report. http://www.savethechildren.org.cn/news/1647

SC. (1990). Law on the Protection of Persons with Disabilities. http://www.gov.cn/guoqing/2021-10/29/content_5647618.htm.

SC. (2019). White Paper on Equality, Participation and Sharing: 70 Years of Protecting the Rights and Interests of Persons with Disabilities in the People's Republic of China. http://www.scio.gov.cn/ztk/dtzt/39912/41159/41170/Document/1660536/166053 6.htm.

SC. (2021). The 14th Five-Year Action Plan on Special Education Promotion.

Scruggs, T. E., M. A. Mastropieri, and K. A. McDuffie. (2007). "Co-teaching in Inclusive Classrooms: A Metasynthesis of Qualitative Research." Council for Exceptional Children 73: 392–416. https://doi.org/10.1177/001440290707300401.

Sharma, U. & Loreman, T. & Forlin, C. (2011). Measuring teacher efficacy to implement inclusive practices. *Journal of Research in Special Educational Needs*, 12(1),12-21.

Shenzhen Finance Bureau. (2021). Report on the implementation of the Shenzhen budget in 2020 and the draft budget for 2021. http://szfb.sz.gov.cn/szsczjwzgkml/szsczjwzgkml/zjxx/czyjs/content/post_88142 37.html.

Shenzhen Government Online. (2021). Notice of the General Office of the People's Government of Shenzhen Municipal on Issuing the 'Shenzhen Action Plan for Promoting the Special Education Equitable and Inclusive. http://www.sz.gov.cn/zfgb/2021/gb1210/content/post_9053648.html.

Shin, M., Lee, H., & McKenna, J. W. (2016). Special education and general education

preservice teachers' co-teaching experiences: A comparative synthesis of qualitative research. *International Journal of Inclusive Education*, 20(1), 91-107.

Slavin, R.E. (1996). *Education for all: Contexts of learning*. Lisse, France: Swets and Keitlinger.

Slee, R. (2006). Limits to and possibilities for educational reform. International Journal of Inclusive Education, 10(2–3):109–119. https://doi.org/10.1080/13603110600578372.

Slee, R. (2018). Defining the scope of inclusive education. *Paper commissioned for the 2020 Global Education Monitoring Report, Inclusion and education*.

Slife, B. D., & Williams, R. N. (1995). *What's behind the research? Discovering hidden assumptions in the behavioral sciences*. Thousand Oaks, CA: Sage.

TALIS. (2013). *Results: an international perspective on teaching and learning.* OECD Publishing. https://doi.org/10.1787/9789264196261-en

Tan, H., & Ma, H. (2012). A survey on needs of professional development of Shanghai teachers for special students Learning in Regular Class. *Basic Education*, 9(2): 63-70.

Tan, Q. (2015). Examining the barriers to inclusive education for students with special educational needs. A case study of two primary schools in Mainland China. [Doctoral dissertation, Universitat Autònoma de Barcelona]. https://tdx.cat/handle/10803/285411#page=1

Tashakkori, A. & Creswell, J. (2008). Mixed methodology across disciplines. *Journal of Mixed Methods Research*, 2, 2-3.

Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.

Tashakkori, A., & Teddlie, C. (Eds.). (2003). *Handbook of mixed methods in the social & behavioral sciences*. Thousand Oaks, CA: Sage.

Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). Thematic analysis. *The SAGE handbook of qualitative research in psychology*, 2, 17-37.

Themane, M., & Thobejane, H.R. (2019). Teachers as change agents in making teaching inclusive in some selected rural schools of Limpopo Province, South Africa: Implications for teacher education. *International Journal of Inclusive Education*, 23(4),369-383. https://doi.org/10.1080/13603116.2018.1434690.

Thomas, G., Walker, D., and Webb, J. (1998). *The making of the inclusive school*. London: Routledge/Falmer.

Tichá, R., Abery, B., Johnstone, C., Poghosyan, A., & Hunt, P. (Eds.). (2018). *Inclusive Education Strategies: A Textbook*. University of Minnesota.

Tomlinson, C. A. (2001). *How to differentiate instruction in mixed-ability classroom* (2nd ed.) Alex-andria, VA: Association for Supervision and Curriculum Development.

Tomlinson, C. A. (2003). *How to differentiate instruction in mixed-ability classrooms* (2nd ed.) (Liu, S. Trans.). Beijing: China Light Industry Press. (Original work published in 2001).

Turner, S. F., Cardinal, L. B., & Burton, R. M. (2017). Research design for mixed methods: A triangulation-based framework and roadmap. *Organizational Research Methods*, 20(2), 243-267.

UN. (1948). *Universal Declaration of Human Rights.* United Nations.

UN. (1989). *Convention on the Rights of the Child*. New York, United Nations.

UN. (2006). *Convention on the Rights of Persons with Disabilities*. United Nations.

UN. (2015). *Transforming Our World: The 2030 Agenda for Sustainable Developmen*t. New York, United Nations. https://sustainabledevelopment.un.org/post2015/transformingourworld.

UN. (2016). General comment No.4 - Article 24: Right to inclusive education.

CRPD/C/GC/4. https://www.ohchr.org/en/hrbodies/crpd/pages/gc.aspx

UNESCO IBE. (2009). *Final Report: Inclusive Education: The Way of the Future*. Geneva: UNESCO IBE.

UNESCO. (1960). *Convention Against Discrimination in Education*. Paris: UNESCO.

UNESCO. (1990). *World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs*. Paris: UNESCO.

UNESCO. (1994). *Salamanca Statement and Framework for Action on Special Needs Education*. UNESCO.

UNESCO. (1994). *The Salamanca Statement and Framework for Action on Special needs Education.* Paris: UNESCO.

UNESCO. (2000). *The Dakar Framework for Action: Education for All: meeting our collective commitments (including six regional frameworks for action)*. Paris: UNESCO.

UNESCO. (2001). *Changing teaching practices: using curriculum differentiation to respond to students' diversity*. Paris: UNESCO.

UNESCO. (2001). *Understanding and responding to children's needs in inclusive classrooms: A guide for teachers*. Paris: UNESCO.

UNESCO. (2003). *Open file on inclusive education: Support material for managers and administrators*. Paris: UNESCO.

UNESCO. (2005). *Guidelines for Inclusion: Ensuring Access to Education for all*. Paris: UNESCO.

UNESCO. (2009). *Policy guidelines on inclusion in education*. Paris: UNESCO.

UNESCO. (2015). *Education 2030 Incheon declaration and Framework for Action: Towards inclusive and equitable quality education and lifelong learning for all.* Paris: UNESCO.

UNESCO. (2017). *A guide for ensuring inclusion and equity in education*. Geneva: UNESCO IBE.

UNESCO. (2019). *On the road to inclusion: highlights from the UNICEF and IIEP technical round tables on disability-inclusive education sector planning.* Paris: UNESCO.

UNESCO. (2020). *Policy paper 43 Inclusive teaching: preparing all teachers to teach all students.* Paris: UNESCO.

UNESCO. (2020a). *Global education monitoring report 2020: Inclusion and education: All means all.* Paris: UNESCO.

UNESCO. (2021). Education profiles-China Inclusion. https://education-profiles.org/eastern-and-south-eastern-asia/china/~inclusion#Learning%20Environments

UNICEF. (2017). Inclusive Education. Including children with disabilities in quality learning: what needs to be done.

United Nations Department of Economic and Social Affairs. (2019). Monitoring of the Implementation of the Convention. New York, United Nations Department of Economic and Social Affairs. http//: www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/monitoring-of-the-implementation-of-the-convention.html.

Universitat Autònoma de Barcelona. (2020). Code of good practice in Research.

Vayrynen, S. (2000). Inclusive education: A challenge, a process. Paper presented at ISEC, 2000, Including the excluded, University of Manchester, Manchester, UK. http//: www.isec.org.uk/abstract/papers_v/vayrynen_1.htm

Waldron, N. L., & McLeskey, J. (2010). Inclusive school placements and surplus/deficit in performance for students with intellectual disabilities: Is there a connection? *Life Span and Disability*, 13(1), 29–42.

Wang, H., Mo, L., & Niu, S. (2020). Research on the implementation of individualized education plan in inclusive education schools: Based on an investigation in Haidian District, Beijing. *Journal of Special Education*, (7): 31-36.

Wang, Y. (2016). Imagining inclusive schooling: an ethnographic inquiry into disabled children's learning and participation in regular schools in Shanghai. [Doctoral dissertation, University of Edinburgh].

Wei, S., Liao, J. & Cheng, M. (2018). The curricular and instructional adaptation for inclusive education: A survey of elementary school teachers in Chengdu and Chongqing. *Chinese Journal of Special Education*, (6): 14-22.

Westwood, P. (1997). *Commonsense methods for children with special needs*. London: Routledge.

Wiersma, W., & Jurs, S. G. (2009). *Research methods in education: An introduction* (9th ed.). Pearson.

Wiliam, D. (2006). *Formative assessment: Getting the focus right. Educational assessment*, 11(3-4), 283-289.

Wiliam, D. T., & Thompson, M. (2006). Integrating assessment with learning: What will it take to make it work? In C. A. Dwyer (Ed.), *The future of assessment: Shaping, teaching and learning*. Mahwah, NJ: Lawrence Erlbaum Associates.

Wilson, C., Woolfson, L., M., & Durkin, K. (2018). School environment and gainy experience as predictors of teachers' self-efficacy beliefs towards inclusive teaching. *International Journal of Inclusive Education*, 24(2), 218-234.

Winter, E. & O'Raw, P. (2010). *Literature review on the principles and practices relating to inclusive education for children with special educational needs.* Meath, NCSE. http://www.ncse.ie/uploads/1/Inclusion_22_11_10.pdf

Wood, M. (1998). Whose job is it anyway? Educational roles in inclusion. *Exceptional Children*, 64, 181-195.

Wu, S. (2018). *Teaching materials and Teaching methods in Inclusive Education.* Beijing: Huaxia Publishing House.

Wu, Y. (2017). An Investigation into Kindergarten Teachers' Inclusive Education Capacities. *Chinese Journal of Special Education*, (11): 8-13.

Xing, T. (2017). The effectiveness of classroom teaching of special-needs children's learning in regular class in the new era: Focus on essential inclusion. *Chinese Journal of Special Education*, (11): 14-17.

Xu, S. Q., & Cooper, P. (2022). Mainstream teachers' perceptions of individual differences among students in inclusive education settings of China. *International Journal of Inclusive Education*, 26(8), 815-833.

Yan, T., Guan, W., & Deng, M. (2017). A survey on the implementation of inclusive education in Beijing. *Disability Research*, (2):90-96.

Yang, L. & Zhang, T. (2018). Progress in the research into the quality of Learning in Regula Classes on the Chinese Mainland. *Chinese Journal of Special Education*. (9): 3-7.

Yin, R. K. (2015). *Qualitative research from start to finish*. Guilford publications.

Yu, L. (2016). On the practice in improving the quality of local inclusive education. *Chinese Journal of Special Education*. (4): 11-17.

Zeng, Y. (2007). Mainstreaming school teachers' attitudes, teaching strategies and needful support in learning in regular classes. *Chinese Journal of Special Education*. (12), 3-7.

Zhou, Q., & Tan, D. (2014). Profile of inclusive teachers: New development of teacher education for inclusion across Europe. *Studies in Foreign Education*. 41(7), 47-53.

Appendices

Appendix A: Letter to the school principal

March 2020

Dear principal,

I am Dandan Li, a Ph.D. student at the Faculty of Education at Universitat Autònoma de Barcelona. My research area is Inclusive Education. Now, I am doing my doctoral thesis on inclusive teaching strategies in Chinese primary schools. The research purpose is to examine the current situation on inclusive teaching strategies through my investigation. It would be appreciated if you could permit me to access your school.

Yours sincerely,

Dandan Li

Appendix B: Interview informed consent form

Title of the research project

Examining inclusive teaching strategies to develop inclusive education at the Chinese primary schools

Purpose of the research

The purpose of this study is to develop inclusive education at primary schools through teacher education and training on inclusive teaching strategies.

What participation in the study involves

First of all, we will ask you for some basic information, such as your age and teaching experience. We will also ask you to identify which inclusive teaching strategies you use to meet students' special educational needs. Finally, we will ask you what aspects to improve in order to develop inclusive education in regular schools.

Duration

The interview takes around 30 minutes.

Risks and benefits

Your participation involves no risks of any kind.

Compensation

In this case, no compensation is envisaged for taking part.

Confidentiality

If you decide to take part, your identity will remain confidential, and only the researcher and the supervisors of the researcher will have access to the project data. Pseudonyms will always be used if case studies need to be presented.

This informed consent form will be kept in a safe place by the principal investigators and will be destroyed five years after the end of the research. When the research is over,

and all data have been analysed, the whole database will be anonymised and made available to other interested researchers.

Voluntary participation

Participation in this study is completely voluntary. There is no penalty for opting not to take part.

Right to withdraw from the study

You can withdraw from the study at any time without giving explanations and with no negative consequences: just by letting us know through any communication channel. As well as this, you can exercise your rights under the European General Data Protection Regulation by making a request to (identity and email address of the data controller), and enclosing a photocopy of your ID document. Request forms for this purpose are available on the website of the UAB Data Protection Office (https://www.uab.cat/web/coneix-la-uab/itineraris/proteccio-de-dades/drets-de-les-persones-interessades-1345764799916.html).

You may also file a claim before the Catalan Data Protection Authority (https://apdcat.gencat.cat/ca/contacte), or contact the UAB data protection officer (proteccio.dades@uab.cat).

In all cases, you will receive a written response within the legal time limit, stating what action has been taken.

Subsequent publication/re-use/other processing of the basic data and conservation period

The data will be kept as long as they are deemed necessary for treatment purposes and addressing the possible responsibilities that may arise, without prejudice to the exercise of the rights that the RGPD recognizes to the data owners. In addition, these data will be made available to other researchers anonymously after five years from the end of the project.

The processing of your data does not involve automated decisions or creating profiles for predictive purposes of personal preferences, behaviors, or attitudes.

Recordings and use of contributions made

__I agree to the interview being recorded (audio) for research purposes.

__I consent to my contributions being quoted literally with no mention of my name and to audio or video recordings of my statements being played back with no mention of my name.

__I consent to the use of my contributions in audio recordings for purposes of scientific dissemination, provided steps are taken to safeguard my privacy.

Contact person

If you have any queries, you can contact the following:

Name of researcher: Dandan Li

Full address: Departament de Pedagogia Aplicada, Campus de Bellaterra, Universitat Autònoma de Barcelona, Spain

Email: ldd1203768749@163.com

Or contact the supervisor of the researcher: Professor Josep Maria Sanahuja Gavaldà

Full address: Departament de Pedagogia Aplicada, Campus de Bellaterra, Universitat Autònoma de Barcelona, Spain

Email: Josep.Sanahuja@uab.cat

Consent

I have read the information about the research project, and I have had the opportunity to ask questions, which have been answered to my satisfaction.

I understand that the anonymised information (with no personal identifiers) on this project will be placed at the disposal of other researchers some time after the project

has ended.

I agree to take part, and I have received a copy of this consent form.

Full name of the participant _____

Signature_____ Date: _____

Researcher:

Signature_____ Date: _____

Appendix C: The first version of the teacher questionnaire

Dear teachers:

I am Dandan Li, a PhD student from Universidad Autónoma de Barcelona, Spain. I am going to conduct a questionnaire in your school for my doctoral thesis. My doctoral thesis title is: Examine inclusive teaching strategies in Chinese primary schools to promote accommodation to all students.

The questionnaire is to examine your inclusive teaching strategies. Please answer it freely according to your situation. All responses will be treated confidentially, only for academic research. Thank you for your participation in our questionnaire. And thank you for your help!

1. Are you: Male_____   Female_____;

2. Your age: _____;

3. Level of Education:

    A graduate of a secondary normal school   Course or specialty_____

    Associate degrees   Course or specialty_____

    Bachelor's degree   Course or specialty_____

    Gain's degrees   Course or specialty_____

    Doctor's degrees   Course or specialty_____

4. What subject do you teach?

    Chinese_____   Mathematics_____

    English_____   Science_____

    Physical Education _____   Morality and society_____

    Music_____   Art_____

Information Technology_____   Other_____

5. How many years have you been working as a teacher? _____

6. Are you a school leader?

    Yes_____ (principal, grade director, subject leader or _____) No_____

7. Are you a Banzhuren teacher?

    Yes_____ (How many years have you been a Banzhuren teacher? _____)
    No_____

8. What does it mean "inclusion", for you?

    _____

    _____

9. Have you got any training on inclusion, especially teaching strategies?

    Yes_____ (What kind of training have you got? _____)   No_____

10. Please indicate your agreement or disagreement with the following statements.

	1	2	3	4
	Definitely agree	Slightly agree	Slightly disagree	Definitely disagree
1) All students are equally valued in my school.				
2) Inclusion facilitates socially appropriate behavior for all students.				
3) Inclusion will foster an understanding of differences among students.				

4) Inclusive education ultimately leads to social inclusion.				
5) Education is a right that should be available to all children.				
6) All students receive appropriate education and related services in inclusive education.				
7) Diversity within the classroom enriches the learning environment.				
8) The best way to ensure equality in the provision of education is to make all students learn in inclusive classes.				
9) Inclusion is the best way to meet the needs of all students.				
10) LRC (Learning in Regular Classroom) program provides different students with opportunities for mutual communication, thus promoting students to understand and accept individual differences				
11) Effective teachers are able to meet the needs of all children in the classes they teach.				
12) I get overwhelmed when I have to differentiate to cater for all of the students' needs in my classroom.				
13) I adapt the curriculum to meet the				

individual needs of all students regardless of their abilities.				
14) I feel differentiated adjustment can be carried out in an inclusive classroom.				
15) I adapt the assessment of individual students in order for inclusive education to take place.				
16) It is possible to organize classes in a way that is suitable for all children.				
17) It is a valuable experience for all children to be educated in inclusive classrooms.				
18) Labeling students (e.g., gender, race, ethnicity, disability, language, socio-economic status) is necessary to provide quality education to them.				
19) All children are capable of learning in inclusive settings.				
20) It is too difficult to accommodate all students' differences in an inclusive classroom.				
21) Inclusive teaching sounds good in theory but does not work effectively.				
22) Inclusive teaching increases teachers' workload.				

23) The class size allows for all students to be considered.				
24) My school management is flexible in order to enable us to respond to all educational needs of all students.				
25) My school coordinates with educational agents (students, teachers, parents, local government, and others) to help all students.				
26) My school provides material resources to support all students learning.				
27) Inclusive teaching requires collaboration among teachers, school administrators, and parents.				
28) I get parents of all students involved in the school activities of their children.				
29) I collaborate with other professionals (e.g., itinerant teachers or speech pathologists) in designing educational plans for students for all students				
30) I work jointly with other professionals and staff (e.g., aides and other teachers) to teach all students in the classroom.				
31) There is sufficient flexibility in my schedule and school calendar to cater for all				

students' educational needs.				
32) Adapts instructional and curriculum materials to enhance and support learning for all students in my classroom.				
33) I provide both individual and group teaching.				
34) I use inclusive teaching strategies (such as cooperative learning and peer tutoring learning) recommended for inclusive classrooms.				
35) I use multi-level teaching: vary the level of difficulty of the same curriculum content being taught to peers of students with disabilities.				
36) A variety of assessment strategies are used (e.g., portfolio assessment, modified tests, performance-based assessment, etc.) in my school.				
37) I accurately gauge student comprehension of what I have taught.				
38) I design learning tasks so that the individual needs of all students are accommodated.				
39) I provide an alternate explanation or example when students are confused.				
40) I provide appropriate challenges for very				

capable students.				
41) I use different methods of teaching to satisfy the students' needs.				
42) I have opportunities to make the modification to the syllabus and teaching materials while teaching in an inclusive class				

11. How often do you use the following teaching strategies in your classroom?

		1	2	3	4
		Never	Occasionally	Usually	Always
1)	Cooperative Learning				
2)	Peer tutoring				
3)	Direct instruction				
4)	Formative assessment				
5)	Cognitive strategy instruction				
6)	Co-teaching				
7)	Small group work				

12. What teaching strategies do you think are most effective in improving students' outcomes? Please give these teaching strategies an order (use number 1-7, from

most effective to least effective) according to their effectiveness for students' achievement.

Cooperative Learning	Peer tutoring	Direct instruction	Formative assessment	Cognitive strategy instruction	Co-teaching	Small group work

13. How do you use other teaching strategies to promote accommodation to all students?

_____

_____

14. In order to promote accommodation to all students, what support do you need?

_____

_____

15. What suggestions do you have to promote accommodation for all students?

_____

_____

Appendix D: The results of the validation of the teacher questionnaire (Second version)

Items	Adequate		Importance					Comment
	Yes	No	1	2	3	4	5	
1. Are you: Male_____ Female_____;	9				1	1	7	One professor doesn't score.
2. Your age: _____;	9				2		7	Same as above
3. Level of Education	9						9	Same as above
4. What subject do you teach?	9				1		8	Same as above
5. How many years have you been working as a teacher? _____	9						9	Same as above
6. Are you a school leader? Yes_____ (principal, grade director, subject leader or _____) No_____	9						9	Same as above
7. Are you a Banzhuren teacher (Tutor)? Yes_____ (How many years have you been a Banzhuren teacher? _____) No_____	9					1	8	Same as above
8. What does it mean "inclusion", for you? _____	9						9	Same as above

	Adequate		Importance					
	_____						9	Same as above
9. Have you got any training on inclusion, especially teaching strategies? Yes_____ (What kind of training have you got? _____) No_____	9						9	Same as above
Items (The flowing items are scaled from "definitely disagree", 1, "slightly disagree", 2, "slightly agree", 3, to "definitely agree", 4.)	**Yes**	**No**	**1**	**2**	**3**	**4**	**5**	
1. Every child has unique characteristics, interests, abilities, and learning needs.	9	1				1	8	
2. Education is a right that should be available to all children.	9	1				1	8	
3. Schools should accommodate all children regardless of physical, intellectual, social, emotional, linguistic, or other conditions.	10					1	9	
4. Inclusion is the best way to meet the needs of all students.	9	1				2	7	
5. All students are equally valued in my school.	9	1				1	8	
6. There are high expectations for all students.	9	1				2	7	
7. Inclusive education ultimately leads to social inclusion.	9	1				1	8	
8. It is too difficult to accommodate all students' differences in an inclusive	9	1			1		8	

classroom.								
9. I get overwhelmed when I have to differentiate to cater for all of the students' needs in my classroom.	9	1				1	8	
10. I feel differentiated adjustment can be carried out in an inclusive classroom.	9	1				3	6	
11. It is possible to organize classes in a way that is suitable for all children.	10					1	9	
12. I believe that any student can learn in an inclusive school if the curriculum is adapted to meet their individual needs.	9	1				1	8	
13. Good teachers can differentiate their practices so that they can teach all students in their classes.	9	1			1	1	7	
14. In my country, there are different laws and policies to ensure education for all.	9	1				2	7	
15. The class size allows for all students to be considered.	9	1				1	8	
16. Our school culture is welcome to all.	9	1				2	7	
17. My school respects differences and celebrates diversity.	9	1				2	7	
18. My school management is flexible in order to enable us to respond to all educational needs of students.	9	1				2	7	

19.	There is sufficient flexibility in my schedule and school calendar to cater to all students' educational needs.	9	1				3	6	
20.	Inclusive education requires collaboration among teachers, school administrators, and parents.	9	1				2	7	
21.	My school coordinates with educational agents (students, teachers, parents, local government, and others) to help all students.	9	1				1	8	
22.	I collaborate with other professionals (e.g., itinerant teachers or speech pathologists) in designing educational plans for students.	9	1				2	7	
23.	I work jointly with other professionals and staff (e.g., aides and other teachers) to teach all students in the classroom.	9	1				2	7	
24.	I get parents of all students involved in the school activities of their children.	9	1				2	7	
25.	Human differences are normal.	9	1				2	7	
26.	I create an inclusive, positive, safe, and supportive learning environment for each student.	9	1				1	8	
27.	Diversity within the classroom enriches the learning environment.	9	1				2	7	
28.	I have opportunities to make modification to the syllabus and teaching materials when	10					2	8	

teaching in inclusive classes.								
29. I adapt the curriculum to meet the individual needs of all students regardless of their situation.	10					2	8	
30. I present information by providing textbooks, audio, video, and hands-on formats in my class.	10				1	1	8	
31. I provide students with alternative means, including oral presentations and group projects, to demonstrate what they know.	10				1	1	8	
32. I look for multiple ways to motivate students.	10					2	8	
33. Differentiated instruction is applied to accommodate all children in my class.	10					2	8	
34. I provide students with a range of different avenues for acquiring the content of teaching.	10					2	8	
35. The teaching process is differentiated for students based on their learning styles and readiness.	10			1		2	7	
36. Students can demonstrate the gain of learning through tests, projects, reports, or other activities.	10			1		1	8	
37. I work with my colleagues through co-teaching to help student learn.	10					2	8	

38. Every student works together and learns through collaborative learning.	10					2	8	
39. I design individualized Education Plans according to some students' individual needs.	10					1	9	
40. I structure learning in order to effectively teach students with special needs.	10					1	9	
41. I use a physical structure with my students with special needs.	10				1	1	8	
42. I use a visual schedule with my students with special needs.	10					2	8	
43. I use different teaching methods to satisfy the students' needs.	10					1	9	
44. I conduct pre-assessment to determine students' prior knowledge and identify their learning preferences and interests before planning their lessons.	10					2	8	
45. My students can self-assess their work and reflect on their learning.	10					3	7	
46. Formative assessment is adopted to gather continuous information for instructional decisions in my class.	10				1	1	8	
47. I use summative assessments to improve students learning at the end of an academic year.	10					2	8	

Appendix F: Teacher questionnaire (Last version)

Dear teachers:

I am Dandan Li, a Ph.D. student from Universidad Autónoma de Barcelona, Spain. I am going to conduct a questionnaire in your school for my doctoral thesis. My doctoral thesis title is: Examine inclusive teaching strategies in Chinese primary schools to promote accommodation to all students.

The questionnaire is to obtain your perspectives on inclusive teaching strategies in your classroom. I really appreciate it if you answer these questions sincerely according to your situation. All responses will be treated anonymously and confidentially. Thank you for your participation in my questionnaire. And thank you for your help!

1. Are you: Male_____   Female_____;

2. Your age: _____;

    a) 20-30 years old 31-40 years old 41-50 years old >50 years old

3. How many years have you been working as a teacher? _____

    a) <1 year 1-3 years 4-6 years >=7years

4. Professional title

    a) None Third-level teachers Second-level teachers First level teachers Top-level teachers

5. Teaching grade

    a) Grade 1 grade 2 grade 3 grade 4 grade 5 grade 6

6. Which subject do you teach?

a) Chinese_____   Mathematics_____

b) English_____   Science_____

c) Physical Education _____   Morality and society_____

d) Music_____   Art_____

e) Information Technology_____   Others_____

7. Level of Education:

a) Associate degrees   Course or specialty_____

b) Bachelor's degree   Course or specialty_____

c) Gain's degrees   Course or specialty_____

d) Doctor's degrees   Course or specialty_____

8. What's your title in the school?

a) Principal

b) grade director/subject leader

c) Banzhuren teacher

d) Teacher

e) Others

9. What type of students with special educational needs are in your classroom?

a) Students with mild hearing impairment

b) Students with moderate hearing impairment

c) Students with severe hearing impairment

d) Students with mild visual impairment

e) Students with moderate visual impairment

    f)   Students with severe visual impairment

    g)   Students with mild intellectual disabilities

    h)   Students with moderate intellectual disabilities

    i)   Students with severe intellectual disability

    j)   Students with learning disabilities

    k)   Autistic student

    l)   ADHD student

    m)   Other

10. Do you know the concept of inclusive education?

    a)   Yes_____ No_____

11. Have you received any training on inclusive teaching strategies?

    a)   Yes_____ No_____

12. Do you want to get any training on inclusive teaching strategies?

    a)   Yes_____ No_____

13. Is there any resource classroom in your school?

    a)   Yes_____ No_____

14. Is there any resource teacher in your school?

    a)   Yes_____ No_____

15. How many resource teachers are there in your school?

    a)   Yes_____ No_____

16. Please indicate your agreement or disagreement with the following statement.

	Definitely	Agree	Disagree	Definitely

	agree			disagree
Dimension A Values and attitudes				
A1. Everyone is made to feel welcome in my school.				
A2. My students help each other.				
A3. Staffs collaborate with each other in my school.				
A4. Staffs and students treat one another with respect.				
A5. There is a partnership between staff and parents/carers in my school.				
A6. Staff and governors work well together in my school.				
A7. All local communities are involved in my school.				
A8. There are high expectations for all students in my school.				
A9. Staff, governors, students and parents/carers share a philosophy of inclusion in my school.				
A10. My students are equally valued.				
A11. Staff and students treat one another as human beings as well as occupants of a role in my school.				

A12. Staffs seek to remove barriers to learning and participation in all aspects of my school.				
A13. My school strives to minimize all forms of discrimination.				
Dimension B Management and environment				
B1. Staff appointments and promotions are fair in my school.				
B2. All new staff are helped to settle into my school.				
B3. My school seeks to admit all students from its locality.				
B4. My school makes its building physically accessible to all people.				
B5. All new students are helped to settle into my school.				
B6. My school arranges teaching groups so that all students are valued.				
B7. All forms of support are co-ordinated in my school.				
B8. Staff development activities help staff to respond to student diversity in my school.				

B9. 'Special educational needs' policies are inclusion policies in my school.				
B10. The Regulations on Education of Persons with Disabilities is used to reduce the barriers to learning and participation of all students in my school.				
B11. Support for those learning English as an additional language is co-ordinated with learnings support in my school.				
B12. Pastoral and behaviour support policies are linked to curriculum development and learning support policies in my school.				
B13. Pressures for disciplinary exclusion are decreased in my school.				
B14. Barriers to attendance are reduced in my school.				
B15. Bullying is minimised in my school.				
Dimension C Teaching and instruction				
C1. I have opportunities to make modifications to the syllabus and teaching materials when teaching in my				

classroom.				
C2. I adapt the curriculum to meet the individual needs of all students regardless of their situation.				
C3. I present information by providing textbooks, audio, video, and hands-on formats in my classroom.				
C4.I look for multiple ways to motivate students.				
C5. My classroom is easy to move for individual or group work with varied types of furniture and arrangements.				
C6. I provide students with a range of different avenues for acquiring the content of teaching.				
C7. The teaching process is differentiated for students based on their learning styles and readiness in my classroom.				
C8. My students can demonstrate the gain of learning through tests, projects, reports, or other activities.				
C9. I work with my colleagues through co-teaching to help students learn.				
C10. My students work together and				

learn in pairs or groups in my class.				
C11. My students teach each other and learn from each other.				
C12. I design individualized Education Plans according to some students' individual needs.				
C13. I use physical objects, molds, etc., as teaching aids to carry out intuitive teaching and improve learning efficiency.				
C14. I encourage students to complete teaching activities through games.				
C15. I create a clear and well-organed learning atmosphere.				
C16. I present learning materials and work procedures to students in a structured, visual way.				
C17. Pre-assessment is conducted to determine students' prior knowledge and identify their learning preferences and interests before planning their lessons.				
C18. My students can self-assess their work and reflect on their learning.				
C19. Formative assessment is adopted				

to gather the details of student performance during the learning process in my class.				
C20. Summative assessment is utilized to check out the teaching outcome at the end of one instructional unit or one term.				

Which teaching strategies do you usually use in your classroom? How do you organize it?

Appendix F: The student questionnaire

Dear students:

I am Dandan Li, a Ph.D. student from Universidad Autónoma de Barcelona, Spain. I am going to conduct a questionnaire in your school for my doctoral thesis.

Thank you so much for agreeing to fill out the questionnaire. The questionnaire is to obtain your opinion on your school and classroom. I really appreciate it if you answer these questions sincerely. All responses will be treated anonymously and confidentially. Thank you for your participation in my questionnaire. And thank you for your help!

I am a girl _____

I am a boy _____

Grade _____

	Definitely disagree	Disagree	Agree	Definitely agree
1. I like to go to school.				
2. My teachers treat everyone friendly in my class.				
3. My teachers expect me to always try my best.				
4. I am happy to have students from different backgrounds in my class, such as students with special educational needs.				

5. People from the community come to our school and classroom.				
6. My family sometimes comes to participate in our activities.				
7. My teachers like to listen to my ideas.				
8. My teachers like to communicate with each other.				
9. My teacher likes to help me with my work.				
10. My teachers try to help students who have problems.				
11. I can get learning support from the psychologist, physical therapist, special education teacher, etc.				
12. I think our classroom rules are fair.				
13. When children in my class quarrel, the teacher sorts it out fairly.				
14. Some of the children in my class call others unkind names.				
15. Sometimes I am bullied in the playground.				
16. I can move my desk for group work.				

17. My teachers provide us with different activities or materials in class.				
18. My teachers provide many ways, such as the Internet, video, audio, and so on, for me to learn.				
19. I can show what I learn in different ways, for example, through presentations, reports, projects, tests, etc.				
20. My teachers encourage me in multiple ways.				
21. My teachers sometimes give me activities or materials which I like.				
22. Sometimes there is more than one teacher in my class.				
23. Sometimes I do classwork in pairs with a friend.				
24. I help my friends with their work when they get stuck.				
25. My friends help me with my work when I get stuck.				
26. There is a special plan (for example, different homework and after-class tutoring) for students				

with special educational needs in my classroom.				
27. My teachers present me with a clear visual procedure to help me finish my work.				
28. I am allowed to assess my learning.				
29. I am allowed to assess my classmates' learning.				

Appendix H: Interview outline for teachers

Dear teachers:

Thank you for your participation. The interview is to obtain your perspectives on inclusive teaching strategies in your classroom. We would appreciate it if you answered these questions sincerely according to your situation. All responses will be treated anonymously and confidentially. If you don't feel comfortable with any questions, please let me know.

Do you have any questions?

Ok, let's start.

Your age_____   Years to be a teacher_____Subject_____

What type of SEN (Special educational needs) is in your classroom/school?

1. What is inclusive education?

2. What does this expression mean for you: "inclusive teaching strategies"?

3. Which measures do your school use to attend to all students? / What does your school do to implement/ facilitate inclusive education?

4. What do you do to facilitate inclusive education in your class?

5. Do you think diversity within the classroom enriches the learning environment? Why?

6. Do you create an inclusive, positive, safe, and supportive learning environment for each student? How?

7. Do you manage your classroom flexibly? How? Please give me an example.

8. Have you got deep contact with students' families? How? Please give me an example.

9. Have you got support services from the psychologist, language therapist, special teacher, or resource teacher to help you with students with special educational needs? How does this support service help you?

10. Do you adapt the curriculum for all students? How do you organize it? Please give me an example.

11. Do you present the information in different ways (visual, audio, hands-on, etc.) to your students? How do you organize it? Please give me an example.

12. Can your students demonstrate their learning and growth in multiple ways?

13. Do you look for different ways to keep students motivated? Please give me an example.

14. Do you use differentiated instruction? How do you organize it? Please give me an example.

15. Do you work with another teacher in your classroom? How do you organize it? Please give me an example.

16. Do your students work collaboratively? How do you organize it? Please give me an example.

17. Do you use peering tutoring? How do you organize it? Please give me an example.

18. Do you use the individualized teaching plan? How do you organize it? Please give me an example.

19. Do you structure your teaching? How do you organize it? Please give me an

example.

20. Do you assess your students through a pre, formative, or summative assessment? How do you organize it? Please give me an example.

21. Which barriers do you have in your school and in your classroom to implement inclusive education?

Thank you for your help!