

**Teachers' Experiences and Perceptions of Inclusion of Students with Invisible  
Disabilities in Schools in Kazakhstan**

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## ABSTRACT

### **Teachers' Experiences and Perceptions of Inclusion of Students with Invisible Disabilities in Schools in Kazakhstan**

Inclusive education is a fundamental principle of the Convention on the Rights of Persons with Disabilities (CRPD), emphasizing the right of all students to equitable quality education. Yet, the successful inclusion of students with invisible disabilities remains a complex issue within Kazakhstan schools. Therefore, this study investigates teachers' experiences and perceptions regarding the inclusion of students with invisible disabilities, exploring their conceptualizations of invisible disabilities, experiences in addressing students' needs, and the enablers and challenges they encounter. Employing a qualitative research design informed by Vygotsky theory utilized semi-structured interviews with teachers from a mainstream school in Astana, Kazakhstan. Data was analysed thematically. Key findings indicate that even experienced teachers may lack understandings of invisible disabilities. Teacher attitudes toward inclusion varied, with some demonstrating positivity, others negativity, and a portion remaining neutral. Challenges stem from limited formal documentation of disabilities and parental reluctance to disclose them. Teachers expressed a strong desire for practical training and courses focusing on teaching students with invisible disabilities. Additionally, they emphasized the critical need for support from school leadership. This study's insights have implications for policy, practice, and research. Findings underscore the need for targeted training, professional development, and robust teacher support systems. In practice, greater awareness of invisible disabilities among teachers is essential for improving inclusive educational quality and student outcomes. Further research should explore perspectives in rural areas, as this study focused on an urban setting. By strategically addressing these challenges, policymakers, educators, and communities can work together to advance inclusive education practices in Kazakhstan and

beyond, ensuring that every student, regardless of background, has the equal opportunity and support to thrive in education.

*Keywords:* inclusive education, invisible disabilities, Kazakhstan, perceptions and experience of teachers, qualitative research, teachers, Vygotsky theory.

## Аннотация

### **Мұғалімдердің Қазақстан мектептерінде Көзге көрінбейтін мүгедектік бар оқушыларды интеграциялау тәжірибесі мен қабылдауы**

Инклюзивті білім беру барлық оқушылардың тең сапалы білім алу құқығына баса назар аударатын Мүгедектердің құқықтары Туралы Конвенцияның (ТБИ) негізгі қағидаты болып табылады. Дегенмен, көрінбейтін бұзушылықтары бар оқушыларды табысты интеграциялау қазақстандық мектептерде күрделі мәселе болып қала береді. Осылайша, бұл зерттеу мұғалімдердің көрінбейтін бұзылулары бар оқушыларды интеграциялау тәжірибесі мен қабылдауын, олардың көрінбейтін шектеулер туралы түсініктерін, оқушылардың қажеттіліктерін қанағаттандыру тәжірибесін, сондай-ақ олардың интеграциясына ықпал ететін факторларды және олар кездесетін мәселелерді зерттейді. Бұл зерттеуде Выготский теориясына негізделген сапалы Зерттеу дизайны қолданылды, Астанадағы (Қазақстан) Негізгі мектеп мұғалімдерімен жартылай құрылымды сұхбаттар жүргізілді. Деректер тақырыптық түрде талданды. Негізгі тұжырымдар тіпті тәжірибелі мұғалімдерде көрінбейтін кемшіліктер туралы түсінік болмауы мүмкін екенін көрсетеді. Мұғалімдердің инклюзияға деген көзқарасы әртүрлі болды, кейбіреулері оң көзқарасты көрсетті, ал басқалары теріс көзқарасты көрсетті, ал кейбіреулері бейтарап қалды. Мәселелер мүгедектік туралы ресми құжаттардың шектеулі санына және ата-аналардың оларды ашқысы келмеуіне байланысты. Мұғалімдер көрінбейтін кемістігі бар оқушыларды оқытуға бағытталған практикалық сабақтар мен курстардан өтуге қатты ниет білдірді. Сонымен қатар, олар мектеп басшылығының қолдауының шұғыл қажеттілігін атап өтті. Бұл зерттеудің нәтижелері саясат, тәжірибе және ғылыми зерттеулерге әсер етеді. Нәтижелер мақсатты оқытудың, біліктілікті арттырудың

және мұғалімдерді қолдаудың сенімді жүйесінің қажеттілігін көрсетеді. Іс жүзінде мұғалімдердің көрінбейтін кемшіліктері туралы хабардарлығын арттыру инклюзивті білім беру сапасы мен оқушылардың үлгерімін арттыру үшін өте маңызды. Әрі қарайғы зерттеулер ауылдық жерлердегі перспективаларды зерттеуі керек, өйткені бұл зерттеу қалалық жағдайларға бағытталған. Осы міндеттерді стратегиялық тұрғыдан шеше отырып, саясаткерлер, педагогтар мен қауымдастықтар Қазақстанда және одан тыс жерлерде инклюзивті білім беру тәжірибесін ілгерілету үшін бірлесіп жұмыс істей алады, әрбір оқушының шығу тегіне қарамастан, табысты білім алу үшін тең мүмкіндіктер мен қолдауға ие болуын қамтамасыз етеді.

*Кілт сөздер:* Инклюзивті оқу, Қазақстан, мұғалімдердің түсінік және тәжірибесі, сапалы зерттеу, мұғалімдер, Выготски теориясы

## Аннотация

### **Опыт и восприятие учителями интеграции учащихся с невидимыми нарушениями в школы Казахстана**

Инклюзивное образование является основополагающим принципом Конвенции о Правах Инвалидов (КПИ), в которых подчеркивается право всех учащихся на равное качественное образование. Тем не менее, успешная интеграция учащихся с невидимыми нарушениями остается сложной проблемой в казахстанских школах. Таким образом, в данном исследовании изучается опыт и восприятие учителями интеграции учащихся с невидимыми нарушениями, их представления о невидимых ограничениях, опыт удовлетворения потребностей учащихся, а также факторы, способствующие их интеграции, и проблемы, с которыми они сталкиваются. В этом исследовании использовался качественный дизайн исследования, основанный на теории Выготского, было проведено полуструктурированное интервью с учителями основной школы в Астане, Казахстан. Данные были проанализированы тематически. Основные выводы показывают, что даже опытные учителя могут не иметь представления о невидимых недостатках. Отношение учителей к инклюзии было разным: одни демонстрировали позитивный настрой, другие - негативный, а часть оставалась нейтральной. Проблемы связаны с ограниченным количеством официальных документов об инвалидности и нежеланием родителей раскрывать их. Учителя выразили сильное желание пройти практические занятия и курсы, направленные на обучение учащихся с невидимыми нарушениями. Кроме того, они подчеркнули острую необходимость поддержки со стороны руководства школы. Выводы этого исследования имеют значение для политики, практики и научных исследований. Полученные результаты

подчеркивают необходимость целенаправленного обучения, повышения квалификации и надежной системы поддержки учителей. На практике повышение осведомленности учителей о невидимых недостатках имеет важное значение для повышения качества инклюзивного образования и успеваемости учащихся. Дальнейшие исследования должны изучить перспективы в сельской местности, поскольку это исследование было сосредоточено на городских условиях. Стратегически решая эти задачи, политики, педагоги и сообщества могут работать сообща над продвижением практики инклюзивного образования в Казахстане и за его пределами, гарантируя, что каждый учащийся, независимо от его происхождения, будет иметь равные возможности и поддержку для успешного получения образования.

*Ключевые слова:* инклюзивное образование, невидимые инвалидности, восприятия и опыт учителей, качественное исследование, Казахстан, теория Выготского, учителя.

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## **Chapter 1 Introduction**

This chapter provides an overview of the study and is divided into five sections including background information, purpose of the study, problem statement, research questions, and significance of the study. The first section presents the study's background information, highlighting the importance of inclusive education for students with additional needs and the implementation of inclusive education in Kazakhstan. The purpose of the study is then discussed, which explains the objectives and research questions of the research. The third section presents the problem statement that identifies teachers' specific experiences and perceptions regarding the inclusion of children with invisible disabilities in Kazakhstan. The research questions this study seeks to answer are presented in the fourth section. Finally, the significance of this study is discussed, which explains the potential impact of this research on the education system in Kazakhstan.

### **1.1 Background of the Study**

The World Health Organization reports that there is a substantial population of people with disabilities, with about 16% of the world's population experiencing some form of disability (World Health Organization, 2022). Unfortunately, many of these disabilities are not immediately visible, making it challenging to recognize and accommodate them in educational settings (Broderick, 2018). This lack of visibility often leads to misconceptions and underestimation of the impact, resulting in insufficient support for affected individuals. It is important to note that invisible disabilities can have a profound effect on individuals' educational experiences by hindering their learning, social interactions, and overall well-being (Broderick, 2018). Therefore, it is critical to understand and address these disabilities in educational settings to ensure inclusivity, support, and equal opportunities for all

students.

Education for all began by introducing inclusive practices championed in the Salamanca Statement (UNESCO, 1994). The Salamanca Statement is a significant international document that emerged from the World Conference on Special Needs Education held in Salamanca, Spain, in 1994 (UNESCO, 1994). The conference was organized by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the Government of Spain with the goal of promoting inclusive education. The Salamanca Statement encourages governments, education authorities, and organizations to work towards inclusive education by developing inclusive policies, adapting schools and classrooms to accommodate diverse needs, providing appropriate support and resources, and promoting collaboration among all stakeholders (UNESCO, 1994).

In Kazakhstan, the history of inclusive education has undergone significant developments over time. The journey towards inclusive practices began in the 1990s in Kazakhstan, shortly after the country gained independence from the Soviet Union in 1991 (Makoelle & Burmistrova, 2021). During this period, efforts were made to integrate students with disabilities into mainstream schools. However, the process faces numerous challenges: low accessibility, lack of classroom equipment, unsuitable curriculum, and lack of teachers' knowledge (Makoelle & Somerton, 2021). In the early years, specialized schools for children with disabilities were established, operating separately from mainstream educational institutions (Oralbekova et al., 2016). Although the Convention on the Rights of Persons with Disabilities (CRPD) was adopted by the United Nations General Assembly in 2006, Kazakhstan ratified it on September 21, 2015 (Ministry of Justice of the Republic of Kazakhstan, 2015). Only in 2007 did the initial progression

towards embracing an inclusive education approach appear with the introduction of the Education Law, which marked a significant milestone by acknowledging the importance of ensuring education for all individuals. Further amendments were made to the Law on Education in 2019. However, the progress of Kazakhstan becoming an all-inclusive society is advancing at a sluggish pace.

Like numerous other nations, Kazakhstan established policies and initiatives to advance inclusive education, aligning with the fundamental principles outlined in the Salamanca Statement. Based on the guidelines of the Salamanca Statement, the State Program of Education Development in the Republic of Kazakhstan for 2011- 2020 was created. Article 2 of the Salamanca Statement (UNESCO, 1994) states, “Every child has a fundamental right to education, and must be given the opportunity to achieve and maintain an acceptable level of learning.” A similar item was added to the State Program of Education Development in the Republic of Kazakhstan for 2011- 2020 (Ministry of Education and Science, 2010), “ensuring equal access of all participants of the educational process to the best educational resources and technologies.”

The Ministry of Education and Science is the government body that has been responsible for the creation of reforms and programs in education in the Republic of Kazakhstan since independence (Makoelle & Somerton, 2021). Regarding this matter, it would be appropriate to forward findings of this research to the Ministry of Education in order to provide valuable insights on how teachers perceive and experience the integration of students with invisible disabilities. In 2004, the Ministry of Education and Science of the Republic of Kazakhstan initiated a comprehensive psychological, medical, and pedagogical consultation (PMPC) aimed at diagnosing and identifying specialized requirements among children and adolescents below 18 years (Ministry of Justice, 2004).

The composition of each PMPC's staff necessitates the inclusion of several critical professionals, namely a psychiatrist, neuropathologist, surdologist, ophthalmologist, and defectologist ( Ministry of Justice, 2004).

In order to effectively work with students with invisible disabilities, Bibigul et al. (2022) argue that teachers must possess knowledge in defectology, as this knowledge is crucial in enabling teachers to apply specialized techniques and strategies in the context of inclusive education. They believe that transforming teachers with a background in defectology, such as those from special schools, and leveraging their expertise can significantly enhance the inclusiveness of education. By incorporating the knowledge and skills of defectologists into mainstream educational settings, teachers can better understand and address the diverse needs of students with disabilities. This integration of defectology in inclusive education promotes a comprehensive approach that supports all students' holistic development and learning outcomes, fostering a more inclusive and accommodating learning environment. Although Kazakhstan has made notable advancements in advocating for inclusive education, several hurdles remain to be addressed (Makoelle & Somerton, 2021). These obstacles encompass resource constraints, the necessity for additional teacher training and assistance, and the imperative task of ensuring equal opportunities for every student.

Despite prior research efforts on the implementation of inclusive education in Kazakhstan, there exists a research gap in terms of a specific study that investigates the experiences and perceptions of teachers when it comes to integrating children with invisible disabilities into schools in the country. In many cases, students tend to conceal their diagnosis, which makes it difficult for teachers to provide them with appropriate training (Kelly et al., 2023). However, students who confided in their teachers and were

made aware of their hidden disability showed improvement in their academic performance by the end of the academic year. Teachers across various academic disciplines often experience confusion when they have a student with an invisible disability in their classroom (Maxam & Henderson, 2013). Firstly, teachers must acquire the necessary skills to support and effectively teach a student with such a diagnosis. Secondly, the standard lesson duration of 45 minutes falls short of adequately engaging every student in a crowded classroom, mainly when a child with an invisible disability requires a more individualized approach and additional time (Maxam & Henderson, 2013). Moreover, teachers expressed the challenge of evaluating student performance because the curriculum is designed for active classroom participation; in contrast, students with concealed disabilities tend to favor a more passive role (Maxam & Henderson, 2013). In order to gain comprehension of this matter, it becomes essential to elucidate the concept denoted by the term "invisible disability." Invisible disabilities encompass impairments or conditions that lack evident physical indicators or conspicuous characteristics, rendering them unnoticeable or inconspicuous to others (Invisible Disabilities Association, n.d.). In the next section, the purpose of this study is discussed.

## **1.2 Purpose of the Study**

The purpose of this research is to explore teachers' experiences and perceptions in Kazakhstan, regarding the inclusion of students with invisible disabilities into schools. This research is significant because teachers play a significant role in implementing inclusive education and the student's success. Understanding the factors that underlie the experiences and perceptions is vital in addressing the challenges faced in attending to inclusive education challenges in Kazakhstan. If this issue is ignored, many teachers cannot provide adequate support in teaching children with invisible disabilities. This might lead

to an increase in the number of uneducated students with invisible disabilities, which will deteriorate their socio-economic situation as these students will not be competitive in society. In the next section, I discuss the problem statement of the study.

### **1.3 Problem Statement**

Despite the growing emphasis on inclusive practices, there is a lack of research exploring teachers' specific experiences and perceptions regarding the inclusion of children with invisible disabilities in Kazakhstan. The focus is on invisible disabilities because they are often overlooked in educational settings due to the absence of apparent symptoms. Students with such disabilities may not receive sufficient understanding and support due to this situation. This study seeks to address this gap in knowledge by examining the lived experiences and perceptions of teachers in Kazakhstan regarding the inclusion of children with invisible disabilities. By gaining insights into the teachers' perspectives, this research aims to inform the development of effective strategies and support systems that enhance inclusive practices in schools and promote optimal educational outcomes for these children with invisible disabilities. Neglecting to tackle this concern could expose these students to the risk of encountering bias, social marginalization, or limited access to the necessary support services, thereby jeopardizing their mental health. Ineffectual inclusion of children with invisible disabilities may lead to social isolation and impede their capacity to establish meaningful connections with their peers. These students frequently exhibit distinct talents and capabilities (Kelly et al., 2023). Not effectively integrating them within the educational framework may result in unrealized potential and missed opportunities for them to make valuable contributions to society (Kelly et al., 2023).

## **1.4 The Research questions**

This research is guided by the following main research question: How do teachers perceive and experience the inclusion of students with invisible disabilities in classrooms?

This question is supported by three sub-questions, as presented below:

1. How do teachers conceptualise invisible disabilities?
2. What are the enablers and challenges teachers face in attending to the needs of students with invisible disabilities in Kazakhstan schools?
3. What are the implications of the findings for policy, research, and practice?

## **1.5 Significance of the Study**

The study holds significant policy, practice and research importance as it sheds light on the status of teacher experiences and perceptions in Kazakhstan concerning the inclusion of children with invisible disabilities. By identifying the gaps and challenges, the study can contribute to developing targeted training programs, professional development initiatives, and teacher support systems. The findings can be utilized to enhance the quality of inclusive education practices and improve the educational outcomes and experiences of children with invisible disabilities. Ultimately, the study aims to foster an inclusive and supportive learning environment that promotes equal opportunities for all students in Kazakhstan's schools and will contribute to policy, practice, and research.

## **1.6 Outline of the Thesis**

This study aims to explore teachers' experiences and perceptions of the inclusion of students with invisible disabilities in schools in Kazakhstan. The proposed Master's research project will be divided into three primary chapters that will form the foundation

for the research thesis. These chapters will include the Introduction, the Literature Review, and the Methodology. The study will begin with an introduction that provides background information about inclusion, invisible disabilities, and the context of education in Kazakhstan. The literature review will discuss previous research on teachers' knowledge about special needs and attitudes toward inclusion, teachers' perception of teachers depending on location and religious views, and the experience of teachers with a sense of isolation of students. In Chapter 3, the methodology used is outlined. A qualitative research design will be utilized, and the data will be gathered through in-depth semi-structured key informant interviews. The Chapter will also outline the research design, research site, and data collection procedures. Towards the conclusion of the Chapter, ethical considerations will be discussed.

## **1.7 Conclusion**

Like many other nations, Kazakhstan has embraced inclusive education principles in line with the Salamanca Statement. The country has made strides in integrating students with disabilities into mainstream schools, but challenges persist, including limited availability and functionality of specialized classes. The Ministry of Education and Science has played a crucial role in driving educational reforms, such as establishing comprehensive consultations to identify specialized needs among children. Kazakhstan's ratification of the Convention on the Rights of Persons with Disabilities and subsequent amendments to the Education Law reflect the country's commitment to inclusive education. While progress has been made, hurdles remain, including resource constraints, the need for teacher training, and ensuring equal opportunities for all students.

The government's and stakeholders' dedication signals a promising future for

inclusive education in Kazakhstan. Teachers play a significant role in receiving equal educational opportunities for students with invisible disabilities. However, research suggests that teachers often experience confusion when it comes to integrating students with invisible disabilities into their classrooms. Addressing the research gap on teachers' experiences in integrating children with invisible disabilities into schools is crucial, as they are on the educational system's front lines and directly impact the classroom environment, teaching methods, and student interactions. Moreover, these disabilities, though not immediately noticeable, significantly impact individuals' daily lives, ensuring that teachers are well-informed and capable of addressing the needs of these students. In the next chapter, the literature review is presented.

## **Chapter 2 Literature Review**

### **2.1 Introduction**

The Literature Review chapter provides a critical analysis of existing literature related to inclusive education, teachers, and students with invisible disabilities. To conduct the review, a systematic and comprehensive approach was taken to identify relevant articles, journals, and books. The process involved searching online databases such as Google Scholar, and NU Library, using relevant keywords and phrases related to the study. I used terms like "inclusive education," "teachers experience "special needs," "the role of teachers," " teachers' perceptions," and "invisible disabilities," in three languages English, Kazakh or Russian and these terms were used in various combinations to conduct database searches. The study material was carefully evaluated to ensure its relevance, and only the materials that fulfilled the criteria were chosen for a more comprehensive examination. The review process involved analyzing the articles' authors, year of publication, research design, sample size, data collection methods, and key findings.

### **2.2 Theoretical Framework: Social Constructivism**

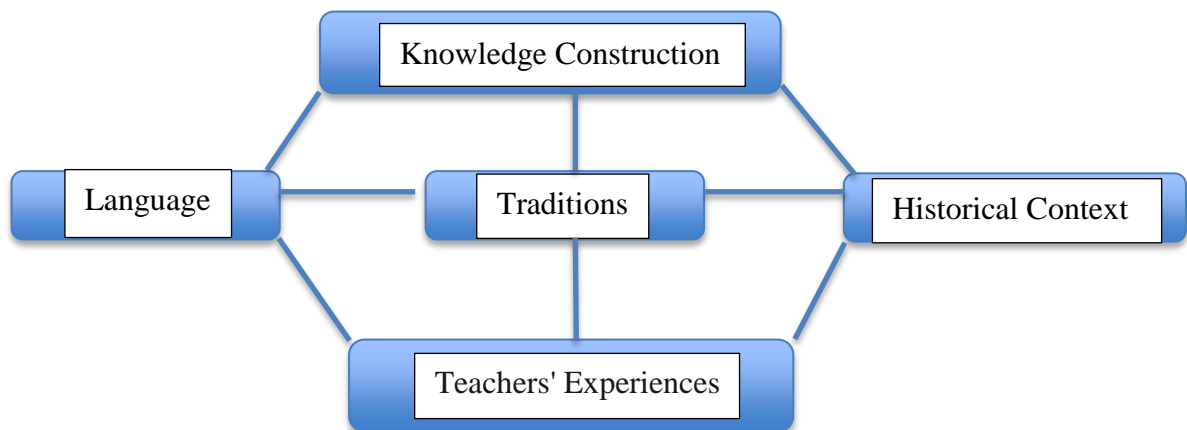
Researchers use a variety of theories to investigate different facets of inclusive education. Social constructivism is particularly apt for this study to understand teachers' experiences and perceptions of inclusion of students with invisible disabilities in schools in Kazakhstan. As Lev Vygotsky (1986) and other scholars have expounded, social constructivism provides a comprehensive lens to understand the intricate dynamics of knowledge construction, collaboration, and cultural influences within inclusive education. Vygotsky (1986) highlighted language and social interaction, which emphasizes the value of communication and construction of meanings in the context of teachers' experiences.

The present study explored how teachers' perceptions on inclusive education are shaped through dialogue with colleagues, students, and the broader educational community.

Vygotsky highlighted the significance of cultural and historical context in knowledge construction of teachers. He maintained that the cultural instruments and practices of a society have a profound impact on the mental processes of its members (Vygotsky, 1986). Applying this concept to the current study, teachers' experiences and perceptions are examined within the specific cultural context of Kazakhstan as cultural factors are integral to the understanding of how teachers construct knowledge related to inclusion and invisible disabilities. Figure 2.1. illustrate that teachers' experiences are not isolated; they are shaped by language, traditions, and historical context, and, in turn, contribute to the ongoing construction of knowledge.

**Figure 2.1**

*Factors that contribute to the construction of knowledge in teachers' experiences and the overarching framework of Social Constructivism.*



It is necessary to pay attention to the historical facts that influenced the views and knowledge of teachers. Kazakhstan was a part of the USSR until 1991 and gradually created its educational system after gaining independence (Makoelle, 2020; Yussupova &

Issabayev, 2022). Although inclusive education in Kazakhstan has advanced greatly in terms of policies, the legacy of USSR education still endures as obstacles remain in the implementation of these policies (An et al., 2020; Yussupova & Issabayev, 2022). The vocabulary and language employed in the educational system still have similarities to those from the USSR, where corrective and remediation courses, as well as medical classification, played a major role (Makoelle, 2020). This means certain aspects of Soviet education provision still impact Kazakhstani educators' perspectives, attitudes, and ideas on special education. By exploring teachers' perceptions and experiences, this study will explain how the above-mentioned factors, to varying degrees, influence the knowledge construction of the teachers in my study in Kazakhstan.

### **2.3 The role of Teachers in Students' Life**

The role of the teacher is crucial in the educational process, particularly within the realm of inclusive education, as it significantly influences the development of the next generation (Aubakirova & Mukatayeva, 2017). Teachers serve as the critical bridge between the inclusive education ideology and its practical realization within the educational system. Consequently, it becomes imperative to assess the depth of teachers' comprehension and their practical experience in catering to the needs of students with invisible disabilities in the context of Kazakhstan.

Teachers should provide emotional support to children who have disabilities (Tagawa, 2021). As teachers, it is their duty to cultivate positive traits such as integrity, self-control, and reverence in their students by integrating various subjects into their teaching methods and encouraging growth in all aspects of their lives, including cognitive, interpersonal, emotional, and moral development (Hasnah, 2017). Although the main

function of a teacher is to provide academic knowledge, the importance of emotional support from teachers cannot be underestimated (Tagawa, 2021). When describing his experience of teaching students with disabilities Tagawa (2021) noted that during an exam, a student felt emotionally depressed. When he hugged the student the student burst into tears. Later, he helped him calm down and return to the exam. This shows that teachers should prioritize emotional support alongside academic knowledge to ensure the overall well-being of their students.

Teachers have a crucial part in facilitating social connections. They establish chances for inclusive relationships between peers and encourage a sense of community among students with disabilities (Mansoor et al., 2013). In addition, the role of school principals is also pivotal in fulfilling students' diverse needs and abilities and establishing school systems and policies that indirectly but significantly impact students' learning (Khaleel et al., 2021). The study by Khaleel et al. (2021) found that teachers who participated emphasized the crucial role of principal support in creating an inclusive school environment. This support is required for regulating the curriculum, providing development and training courses, and offering mentoring for teachers.

Improving the social skills of disabled students can positively impact their ability to interact with others, display appropriate behaviour, and gain acceptance from peers and other adults (Mansoor et al., 2013). This can also aid in their independence and assist them in achieving educational and social objectives.

#### **2.4 Teachers' Expertise Regarding Invisible Disabilities and Attitude Towards Inclusion**

The introduction of inclusive education necessitates systemic reform and the active involvement of the teaching faculty (Carrington & Robinson, 2004). Numerous

empirical studies have consistently highlighted the predominant issue hindering the successful implementation of inclusive education as the inadequate qualifications of teachers (Glazzard, 2010; Gyasi et al., 2020; Movkebaieva et al., 2013). A significant majority, approximately 71 percent of teachers, experienced a mental obstacle when it came to implementing inclusive education in Semey, Kazakhstan (Movkebaieva et al., 2013). This barrier stemmed from their limited theoretical and practical expertise in the realms of instructing and assessing children with disabilities. Furthermore, Gyasi et al. (2020) stressed that inadequate knowledge and understanding of students' unique needs among teachers in Ghana can lead to ignorance and non-recognition of the needs of students with invisible disabilities. Teachers may sometimes perceive students with invisible disabilities as rebels or unreasonably lazy due to a lack of knowledge and understanding of their unique needs. They may not realize that such students' behavior is related to the fact that they need a different approach to learning. Moreover, a study involving children with dyslexia in the north of England reported that their teachers lacked an understanding that individuals with this syndrome require differentiated educational approaches (Glazzard, 2010). Additionally, the study revealed that teachers struggled to grasp the specific challenges associated with students' disabilities and became anxious when students could not complete tasks within the designated timeframes. This lack of knowledge concerning disabilities and limited experience in implementing inclusive education practices is a pervasive concern among teachers in Kazakhstan (Movkebaieva et al., 2013). According to Yussupova and Issabayev (2022), teachers' attitudes towards inclusivity are primarily influenced by methodological factors. These factors include limited knowledge of teaching methods, evaluation and differentiation techniques, curriculum fulfillment, limited learning materials for children with special educational needs, strict state educational standards, and excessive

paperwork. Moreover, according to Matthews (2009), teachers should create educational materials tailored to meet the needs of students with invisible disabilities, even if no such students are currently in the classroom. This proactive approach ensures that all students are fully included from the beginning rather than only accommodating students with invisible disabilities after they arrive in the classroom. However, teachers find it difficult to follow the general education requirements in inclusive settings, such as the types of examinations and the assessment criteria. Teachers find inclusion to be time-consuming and demanding of their patience (Yussupova & Issabayev, 2022).

Several papers have emphasized the importance of teachers' solid moral values and positive attitudes toward students with disabilities. However, this can be challenging when teachers need more motivation and harbor concerns about insufficient knowledge (Mahlo, 2017; Movkebaieva et al., 2013;). For example, Movkebaieva et al. (2013) surveyed teachers' attitudes toward students with disabilities and their preparedness for inclusive education in Semey, Kazakhstan. More than half of the participants exhibited adverse reactions towards inclusive education, primarily due to their fear of increased workload and responsibility and their lack of knowledge on effectively teaching these students.

Teachers expressed apprehension about their ability to adequately cater to the diverse needs of all students as they struggled to diagnose specific needs and identify appropriate adaptation approaches (Abdina et al., 2018). An interview showed that most teachers are young and need more experience working with students with disabilities (Abdina et al., 2018). Moreover, subject teachers need to evaluate students with additional needs since most students are not evaluated on the exam, but most want to pass the exams. Furthermore, the research of Park and Chitiyo (2011) emphasized that various factors influenced teachers' perceptions of children with autism, including

gender, age, school level, and workshop attendance in a small town in the Midwest in the United States. Notably, female teachers demonstrated a more favorable outlook towards children with autism when compared to their male colleagues. However, Agaveyana et al. (2020) suggest a gender disparity in perceptions towards inclusivity among teachers and reported that male teachers are more optimistic about inclusivity than their female counterparts. Age was also a significant determinant, as teachers above the age of 56 reported lower attitude scores than those aged between 20-35 and 46-55 (Park & Chitiyo, 2011).

Moreover, elementary school teachers generally exhibited more positive attitudes than their counterparts teaching in middle schools (Park & Chitiyo, 2011). Another essential discovery pertained to the impact of workshop experience; teachers who had attended multiple autism workshops exhibited notably higher attitude scores than those who had never participated in workshops or had only attended one. These findings highlight the significance of understanding the factors that influence teachers' attitudes toward children with autism and underscore the potential benefits of providing targeted training and workshops to foster positive attitudes and inclusivity within educational environments. Promoting a more inclusive and supportive educational setting for children with autism is essential for their academic and social development, and equipping teachers with the necessary knowledge and tools can contribute significantly to their success in the classroom. By recognizing the role of various factors in shaping teachers' perceptions, educational institutions can tailor professional development programs to address specific needs and enhance overall inclusivity.

Fostering a positive and accepting attitude towards students with invisible disabilities benefits their academic progress and contributes to a more compassionate and inclusive society (Kelly et al., 2023). Encouraging open dialogue and providing

ongoing support for teachers can create an environment where all students are treated with respect and understanding regardless their abilities (Kelly et al., 2023).

Previous research has consistently demonstrated that teachers recognize the significance of receiving specialized training to integrate students with disabilities into mainstream classrooms effectively. Chorna and Yakovenko (2019) surveyed teachers in Ukraine, revealing that a considerable number of participants (77 teachers) expressed a strong desire to acquire knowledge specifically in speech therapy. Remarkably, these teachers recognized the importance of gaining new knowledge and indicated their willingness to bear the financial costs associated with such training personally. However, it is essential to highlight that while Seilkhanov (2020) argues that the Kazakh government acknowledges the necessity of enhancing teachers' skills and knowledge in working with students with special educational needs, an important aspect needs to be addressed. Specifically, some Kazakh teachers do not perceive teaching children with special educational needs (children with invisible disabilities also belong to the category with special educational needs) as a direct obligation and feel they need to be adequately supported by the state in pursuing additional education (Seilkhanov, 2020).

## **2.5 Perception of Teachers Depending on Location and Religious Views**

Geographical location, religious beliefs, and local traditions can influence teachers' attitudes toward teaching children with disabilities. For instance, a study conducted by Page et al. (2019) in the Cook Islands found that teachers generally treated children with disabilities positively, often referring to their religious beliefs and the notion of equality before God. However, a noteworthy finding was that teachers with more than twenty years of experience believed that these children were somehow paying for the sins of their parents. Such negative beliefs held by certain teachers can lead to

shame among parents of students with special needs, making them hesitant to allow their children to participate fully in the community and education. Furthermore, parents' limited knowledge and understanding regarding disabilities present a significant barrier to the social adaptation of children. Cohen's (2012) study in Kenya revealed that parents exhibited an inadequate understanding of autism as a diagnosis. Instead, autism was often perceived as a condition linked to witchcraft or supernatural forces. This misperception led parents to refrain from seeking professional help and support for their children for an extended period. As a result, children with autism were brought to teachers at a late stage of their development, posing challenges for teachers to effectively adapt and accommodate these children within a regular classroom setting.

Schneider's (2017) research conducted in Roatan, a small island in Honduras, highlighted the significant impact of six ethnic groups on teachers' perspectives regarding disability. Despite Western cultural influence on the island, the residents, including teachers, firmly adhere to traditional beliefs about disability. Teachers emphasized that certain types of disabilities are associated with specific practices during pregnancy, such as abstaining from drinking certain teas, avoiding being outside during the full moon, refraining from scaring certain animals or fearing punishment for showing disrespect towards disabled individuals. These deeply ingrained ethnic beliefs also make parents ashamed of their children with disabilities, leading them to seclude them from society. Moreover, cultural beliefs shape teachers' opinions, leading them to believe that children with disabilities should be educated in specialized classes or schools.

Expanding on the topic, it is essential to recognize the profound impact of cultural beliefs and traditions on attitudes toward disability. In many societies, including Roatan, cultural beliefs and practices heavily influence perceptions of disability, often contributing to stigma, discrimination, and the marginalization of individuals with

disabilities. Such beliefs can create barriers to inclusive education, as parents may be reluctant to send their children with disabilities to mainstream schools due to the fear of judgment and exclusion. Consequently, providing inclusive education may face resistance from teachers and parents, perpetuating a cycle of exclusion and limiting opportunities for children with disabilities to access quality education. To address this issue, it is crucial to foster greater awareness and understanding of disability within the community. Education and awareness campaigns can help challenge negative stereotypes and misconceptions about disabilities, promoting a more accepting and inclusive environment.

## **2.6 Experience of Teachers with a Sense of Isolation of Students**

When it comes to students with invisible disabilities, the educational process becomes complex due to the concealment of their diagnosis (Matthews, 2009). Doyle and Robson (2002) consider that students with concealed disabilities or learning difficulties often face apprehension and resistance when disclosing their condition due to concerns regarding stigma and negative perceptions of their disability in the UK. They may hesitate to acknowledge their challenges as learning difficulties as they fear the potential consequences of being labeled with terms like "learning difficulty" or "disability" (Doyle & Robson, 2002). Moreover, Parents in Kazakhstan are also concerned that their children with disabilities may face stigmatization or discrimination if their condition is disclosed to others (An et al., 2020). This fear of self-disclosure emerges from how others, including peers and teachers, will perceive them. For instance, if a student receives a diagnosis of dyslexia, they may be hesitant to embrace this label and reveal their condition, fearing potential discrimination, social exclusion, or differential treatment. The perceived stigma surrounding disabilities and learning

difficulties further intensifies their apprehension, creating significant barriers to seeking support and accommodations. Consequently, students may silently struggle without accessing the resources and assistance that could significantly enhance their educational experiences and academic success. Addressing these concerns and fostering an inclusive and supportive environment that encourages open dialogue, understanding, and acceptance of diverse learning needs is crucial.

Despite the progress towards inclusive education, mainstream schools still face persistent societal barriers that hinder the full inclusion of children with disabilities in the USA. Instances of bullying and the psychological challenges encountered by students with special educational needs contribute to this issue (Pivik et al., 2002). Research indicates that American middle and high school students without disabilities can inflict psychological and physiological trauma upon their peers with disabilities (Rose et al., 2009). Consequently, efforts to integrate children with special educational needs into regular classrooms can fall short, as Pavri and Luftig (2001) argue that they often remain marginalized and overlooked by their classmates.

Koster et al. (2010) highlighted persistent issues concerning social interaction among students with special educational needs in the Netherlands. Their research demonstrated a low rate of interactions between students with disabilities and their peers and teachers. This suggests that students with special educational needs encounter challenges establishing social connections and engaging in meaningful interactions within the school environment.

Additionally, Glazzard (2010) argued that children with invisible disabilities experience complexity as they compare themselves with their non-disabled peers. This comparison often leads to disappointment and low self-esteem, as children with invisible disabilities perceive their limitations in performing tasks at the same level as their peers.

Furthermore, the author claimed that teachers do not provide the necessary support for children with invisible disabilities, exacerbating their feelings of disappointment and low self-esteem.

## **2.7. Conclusion**

The literature review highlights various gaps that need to be addressed in the context of inclusive education. The notable gap highlighted in the literature review process is the impact of cultural beliefs and traditions on attitudes toward disability. In many societies, cultural beliefs and practices heavily influence perceptions of disability, often contributing to stigma, discrimination, and the marginalization of individuals with disabilities. Such beliefs can create barriers to inclusive education, as parents may be reluctant to send their children with disabilities to mainstream schools due to the fear of judgment and exclusion.

The literature review also highlights the issue of students with invisible disabilities feeling isolated due to the concealment of their diagnosis. This fear of self-disclosure emerges from concerns about how others, including peers and teachers, will perceive them. Consequently, students may silently struggle without accessing the resources and assistance that could significantly enhance their educational experiences and academic success.

By exploring teachers' comprehension and practical experience in catering to the needs of these students and examining the impact of cultural beliefs and traditions on attitudes toward disability, this study aims to foster greater awareness and understanding of disability within the community. Additionally, by encouraging open dialogue and providing ongoing support for teachers, this study aims to create an environment where all students are treated with respect and understanding regardless of their abilities. In the next chapter, the methodology is presented.



## **Chapter 3 Methodology**

### **3.1 Introduction**

This section discusses the methodology that informs this study of how teachers perceive and experience the inclusion of students with invisible disabilities in classrooms in Astana, Kazakhstan. The methodology chapter has four sections. The first section looks at research design and this is followed by sections on research sites and data collection procedures, and lastly, the chapter concludes with a section on ethical concerns.

### **3.2 Research Design**

The study design was based on a qualitative approach. Phenomenological research design enabled a thorough exploration of experiences, which could be overly simplified or entirely overlooked in quantitative research. Qualitative research allowed for the exploration of multiple perspectives, focusing specifically on teachers in this case, to gain a holistic view of the issue mentioned earlier (Creswell, 2014). It helped identify how cultural, societal, and educational factors unique to Kazakhstan might have shaped views on inclusive education for students with invisible disabilities. This method allowed for an in-depth exploration of the subjective opinions and experiences of the participating teachers.

### **3.3 Research Site**

I conducted a study among middle and high school teachers in Astana and selected one public school for this purpose. To make data collection convenient for participants, I

arranged face-to-face meetings at a neutral location outside of the school. Eight teachers from this public school participated in the study.

### **3.4. Data Collection Procedures**

My data collection tool was in-depth interviews. I used semi-structured questions to explore teachers' experiences and perceptions of inclusion of students with invisible disabilities in schools in Kazakhstan. Before the interview, I asked participants to choose the language of their choice between three English, Russian and Kazakh and I conducted the interviews in their preferred language. To do this, I had prepared a list of questions and translated them into the three languages.

The approximate number of my key interview questions was about ten, which were all connected to my research questions. However, the structure of the questions varied depending on the participants' responses to the probing questions. Moreover, the number of questions decreased or increased if the participant wanted to give a more extensive answer to the questions asked.

Upon receiving approval from GSE IREC to initiate data collection, I requested an official invitation letter from Nazarbayev University which indicated that I was a student at this university and had the permission to conduct research. After obtaining permission of the school leadership to conduct a study among the teachers at this school, I asked the schools' leadership to send out information about the research to all teachers through their corporate mail. I also asked permission to talk about my study to all teachers at the teachers' assembly and invited volunteers to participate in my study, after which I left my contact details for those who were interested in participating in the study. I provided an information sheet which explained the purpose of my research along with,

the provision of confidentiality and safety of all participants, and described the advantages of my research. My contact information was provided at the end of my information sheet so those who wished to participate could contact me. I got in contact with the teachers who showed interest and I used snowballing approach by asking my initial contacts if they could refer me to their colleagues who might be interested but had not received information about the study. Since the study utilized face-to-face interviews, I arranged for a safe and neutral space outside the school that worked for both parties e.g. coffee shops, or other workspaces. Each interview was expected to last between 45 to 60 minutes. Voice recording was used to capture audio during face-to-face, which was used to transcribe each participant's responses after the interview. The interviews were conducted within two months.

### **3.5 Data Analysis**

Data analysis was the method by which research issues or questions were addressed (Merriam & Tisdell, 2016). As the research concerned comprehending the experiences and perspectives of teachers, which were inherently qualitative, employing thematic analysis provided a structured method to systematically analyze and interpret the abundant qualitative data that might have arisen from interviews. Moreover, theoretical analysis was a more approachable type of analysis, especially for individuals just starting out in the field of qualitative research (Braun & Clarke, 2006). The interviews were recorded on audio and listened to many times before transcription. No personal data was included in the written report form to preserve the confidentiality of the participants. The data was reviewed multiple times to gain familiarity with it. The coding process began by identifying and labeling relevant data segments with short codes. Subsequently, these codes were organized into potential themes, reflecting

patterns and recurring ideas within the dataset (Merriam & Tisdell, 2016). A table was created where transcripts, codes, categories, and themes were entered manually for convenience. The analysis was reviewed continuously to verify that themes aligned with the research question and accurately represented the data.

### **3.6 Ethical Considerations**

In the information form, I left my contact information so those who wished to participate in the study could initiate contact with me. To avoid any pressure or bias from the school administration or colleagues, the personal information of the teachers in the study was not disclosed to the school principals. Participants' names were not recorded or linked to their answers in any way. To ensure that participants could better understand the content of the study, I provided the consent form and interview schedules in three different languages. The information was sent via email for review before the interview.

Before the interview, I explained the details of the study and emphasized that it was voluntary to participate in the study, and individuals had the option to exit the study at any point. To alleviate emotional distress, I made sure to inform participants about the study's nature and the potential emotional impact of discussing sensitive topics during the informed consent process. I also gave them the chance to ask questions and provide their consent voluntarily. The interviews were conducted in an impartial location which was not within the school premises to allow teachers to express themselves fully.

I took measures to make sure that participant information, such as interview transcripts and audio recordings, were kept private and safe. The information was kept on secure equipment and solely accessible by me. All information obtained during the

interview process was stored in a password-protected computer and will be deleted after three years.

When reporting, participants' responses were linked to a pseudonym to ensure anonymity and privacy. Pseudonyms will be used in all data, publications, reports, and other research output. In addition to using pseudonyms to safeguard the identities of the participants, I was cautious to exclude details that could potentially disclose their identities while reporting the research findings. Even the school's name and other identifiers were removed in reporting to protect participants' identities.

Participants did not receive any direct benefit from the study. However, their responses provided an opportunity to understand the situation related to the experience and perception of teachers in the inclusion of students with invisible disabilities. At the end of the interview, I bought a cup of coffee as a token of appreciation for a face-to-face meeting or made a money transfer equivalent to the cost of a cup of coffee.

The original schedule the data collection coincided with the months when there were most public holidays when teachers focused on preparing for holidays and grading students' work before the holidays. Thus, December was not a very convenient month for many teachers to participate in the study. For this reason, I adjusted my schedule to the teachers' schedule as much as possible. Most interviews took place in February after the holidays. For face-to-face interviews, I selected a place in a calm, quiet, and neutral location to reduce the security risk for both the study participant and me.

### **3.6 Conclusion**

This chapter has presented the methodology that will be used to study the perception and experience of teachers regarding the integration of students with invisible

disabilities in classrooms in Astana, Kazakhstan. The study was conducted using a qualitative research approach, which will allow for an in-depth exploration of the subjective opinions and experiences of teachers. The research design section discussed the importance of qualitative research and how it enabled a thorough exploration of the experiences of teachers. The section explaining the research site highlighted that teachers from one public school in Astana were selected for data collection. Data collection procedures discussed the use of in-depth interviews to explore participants' experiences and perceptions. Ethical concerns were also addressed, including the importance of anonymity and privacy, the need for informed consent, and the provision of a token of appreciation for participants. Overall, this methodology ensured that the study was conducted in an ethical and rigorous manner, providing valuable insights into the experiences of teachers regarding the integration of students with invisible disabilities in classrooms in Kazakhstan. In the next chapter, the findings of the research is presented.

## Chapter 4 Findings

### 4.1 Introduction

The purpose of this research was to explore teachers' experiences and perceptions in Kazakhstan, regarding the inclusion of students with invisible disabilities in schools. The study also aimed to identify teachers' obstacles while teaching students with invisible disabilities and provide recommendations for an effective learning process for them. To obtain the data in-depth interviews were conducted with eight teachers at one Kazakh lyceum school. The research sought to answer four main research questions:

- How do teachers conceptualise invisible disabilities?
- How do teachers perceive and experience the inclusion of students with invisible disabilities in classrooms?
- What are the enablers and challenges teachers face in attending to the needs of students with invisible disabilities in Kazakhstan schools?
- What are the implications of the findings for policy, research, and practice?

### 4.2 Participants' Profiles

Eight teachers were interviewed to learn about their experience and perceptions regarding the inclusion of students with invisible disabilities in schools. Majority of the participants were female. Half of the participants had less than ten years of work experience, while three of the participants had more than twenty years of experience (Table 4.1)

#### Table 4.1

*Participants' Profiles*

<b>Participant</b>	<b>Gender</b>	<b>Years of professional experience</b>
T1	Female	5
T2	Female	16
T3	Female	25
T4	Male	7
T5	Female	23
T6	Female	6
T7	Female	4
T8	Female	29

### **4.3 Conceptualisation of Invisible Disabilities**

The study began by investigating how teachers understand "invisible disabilities." To achieve this, the teachers were asked to describe their understanding of the term and how they perceived it as teachers. Almost all participants did not comprehend the concept. They further claimed that they had yet to encounter students with invisible disabilities. However, after explaining that this disability is not pronounced outwardly and affects a person's mental health, the teachers shared their definitions and points of view. However, it should be noted that teachers do not have a clear understanding of the invisible disability, and their definitions are more similar to a student who is not interested in the lesson.

For instance, one participant (T5) mentioned, "There are many such children. They are impulsive and hyperactive, who cannot sit for 45 minutes in class." In a similar vein, T8 added, "Such children are different from ordinary children. They get tired quickly and cannot perform general tasks, so I give them easy tasks such as drawing." In addition, T6 stated:

Probably, this is the person who just sits in class and brings his books. He just looks at one point and does not show any activity like other children. I try to look at them and ask in my lesson and pay attention to them. When I don't pay attention, they already switch from the lesson and do nothing. (T6)

In addition, T4 claimed to be well acquainted with invisible disabilities since his little sister has Down syndrome. However, it is essential to note that Down syndrome is a visible disability and not an invisible one. This indicates that T4 does not have an accurate understanding of the difference between an invisible disability and a visible one; this could potentially result in inadequate addressing of the educational needs of students with invisible disabilities.

#### **4.4 Experiences Engaging with, and Teaching Students with Invisible Disabilities and Attitudes Toward Their Inclusion**

Participants' experience working with students with invisible disabilities and their attitude toward these children was examined. Almost all participants faced the challenge of identifying students with invisible disabilities and developed their teaching methods to ensure that each student's unique needs were met. When talking about their experiences, T1 mentioned, "There is a 13-year-old girl in the seventh grade, but her development is younger than six years. I teach labor course, and when all the girls are doing embroidery, I give this girl a task to draw pictures." Additionally, T2 said, "Treat them exactly like other children, not separate them from the class, but give them separate tasks. To allocate special attention so students with invisible disabilities do not lag the class." Two other teachers T4 and T6 also stated their experiences.

I teach on an equal basis with other children in the class. I ask and give tasks but evaluate them according to their level. During the verification work, I give easier tasks. I will adapt the program myself for a child with an invisible disability. (T4)

We teach children in a typical classroom, but we create an individual program specifically for the child. For example, if there is a child's development at the fifth-grade level and he studies in the seventh grade, then we add elements of the seventh grade but adhere to the fifth-grade program. (T6)

Although T2 had no experience teaching children with invisible disabilities, she is optimistic that they must be included in a comprehensive school. Four participants maintain a positive outlook on the inclusion of children with invisible disabilities. This suggests that some teachers have an inclusive attitude towards these students. For instance, T1 shared, “We can say that they are now a part of our society, and it is better to teach them to adapt, give them support and motivation. Because they have their own dreams and desires.” Moreover, T4, T6, and T8 shared their perspectives as well:

I believe that it is not necessary to divide people according to their disabilities but to treat everyone as equal. I believe that in our society, we accept such children, and we must educate them. I saw a video on YouTube where a child with an invisible disability was told that he was healthy, that he was no different, and they gave him support and believed in him. Everything worked out for this child, and he developed like all normal children. I believe that we should also teach children with invisible disabilities in this way. (T4)

The current generation (of Kazakhstan) has a positive attitude towards children with invisible disabilities, and I understand that these children need support and do not see a big difference between themselves. Also, teachers are already fine with teaching children with invisible disabilities. (T6)

Children in the classroom perceive children with invisible disabilities normally, but children with invisible disabilities themselves do not have contact with their classmates in our school. Although children who are home-schooled are very closed and do not make contact, when they are in the general class, their behavior already changes for the better. (T8)

Only T3 indicated her negative attitude towards the inclusion of children with invisible disabilities in her class, pointing out that previously, children with such a diagnosis had studied in specialized schools. Education of children with such a diagnosis in mainstream schools should take place only on the condition that the student has a mild degree of disability.

Two participants were neutral regarding teaching children with invisible disabilities in mainstream classrooms. However, T5 expressed concern that the post-Soviet teaching method still influences the perception of society that children with invisible disabilities must study separately. In her opinion, teachers are not sufficiently prepared for inclusion, and the transition to its implementation seems abrupt for teachers.

T7 mentioned that she maintains a neutral attitude towards teaching children with invisible disabilities. However, she also admitted that she experiences feelings of dislike towards them at times due to the fact that the student with the diagnosis used force and insulted her. Nevertheless, she emphasized that she does not let these feelings affect her work as a professional and does not dwell on them after classes.

#### **4.5 Training in Inclusive Education**

Only two participants received a special course on inclusive education while studying at the university. However, T7 claimed that it was a short course based only on theory and that the practical part needed to be included. While T3, T5, T6 have received

inclusive education training at advanced training courses and seminars, they expressed a need for more than just theoretical knowledge. Specifically, they identified a need for more practical experience to help them effectively implement inclusive education in their classrooms.

I had a course on inclusive education for teacher training courses where they explained to us what types of disabilities exist from a medical point of view. What documentation goes to the PMPC, and how it can be used at work. What tasks should be given. Learn to identify their inclinations. I did not take such a course for a bachelor's degree. However, special courses are still needed from specialized institutions. (T6)

Three participants did not receive any formal training related to teaching students with invisible disabilities. To teach students in their class, T8 uses information sources from the Internet and the help of colleagues: "I have not received any special education, but I want to get training to work with children with invisible disabilities. Currently, I am watching videos on the internet and asking people who work with children with invisible disabilities." In addition, T4 did not take specialized courses but relied on his life experience: "No, I did not receive special education for teaching children with invisible disabilities. However, I have my own life experience. Since my sister has a disability, I relied on my experience."

All participants emphasized the importance of taking practical courses to teach children with invisible disabilities, regardless of whether they had taken specialized courses. Teachers must have the necessary skills and knowledge to provide quality education to students with invisible disabilities and ensure they receive the support they need.

#### **4.6 Disclosing Disabilities and Official Supporting Evidence**

One of the challenges faced by teachers in providing effective educational interventions is related to the lack of official supporting evidence as well as and parental reluctance to disclose their child's invisible disability. Two participants (T1 and T5) pointed out that it is the parents who hide their child's diagnosis, not wanting to identify their children as having invisible disabilities.

But many children with invisible disabilities do not have documents or parents hide and do not want to show the child's disability. In this case, we ask the class teacher if there are students with disabilities in the classroom. The class teacher points out to us that there is such a child in the class and asks us to give him a little attention.

(T1)

I am faced with the fact some parents do not want to show that their child has an invisible disability and do seek help from specialists. As a result, some children does not have any official paper about their diagnosis. (T5)

According to two participants, some students do not have an official confirmation of their invisible disabilities. This puts teachers in a difficult position of having to adjust the teaching program without knowing the exact diagnosis of the student's condition. For instance, T7 pointed out, "Many of them (students with invisible disabilities) do not have confirmation of their invisible disability, but their psychological characteristics are visible." In addition, T4 stated:

I believe that even if it is an invisible disability, it is still revealed during teaching and when talking to such a child. In any case, such a child is different... I adapt the program by myself for a child with an invisible disability. (T4)

#### **4.7 Challenge with Balancing Individualized Support and Curriculum Requirements**

In today's inclusive classrooms, teachers are required to provide individualized support to students with invisible disabilities while also adhering to the standardized curriculum. This can be challenging for teachers in Kazakhstan since they have to independently adapt the curriculum to meet the needs of students with diagnoses, who can sometimes disrupt the classroom environment.

When I was working in another city, the situation was completely different. No tutor was provided for the child. Moreover, a child with an invisible disability could scream, yell, and leave the classroom. As a teacher, it was tough for me to teach a lesson or to deal only with this student. (T1)

Sometimes there are problems in teaching children with invisible disabilities in the sense that it is difficult to control their behavior. It can be difficult to cope with behavior with ordinary children, and then when a child with an invisible disability appears in class, it becomes even more difficult. (T4)

When teaching a child with autism, I was faced with the fact that physical force was used on me by the child. He attacked me and scratched me, and I was scared and did not know how to react. (T7)

There are often problems due to behavior; they scream in class and make sounds that distract from the lesson. This violates discipline in the classroom and worsens concentration in the lesson. Because of this, other children cannot concentrate on the lesson and complete tasks. (T8)

The teachers at this school have implemented a system to balance individualized support and curriculum requirements. They create a simplified program drawing mainly on the topic they have studied and work with the students for 10-15 minutes. After that, the

tutor takes over and works with the student separately, provided the child has an official confirmation of the diagnosis. This way, teachers can focus on delivering the curriculum to the rest of the class while ensuring that students with invisible disabilities receive the necessary support. T1 pointed out, “It maintains a balance in teaching, thanks to tutors. They help a lot because we give a separate task to the student, and they do it with their tutor.” In addition, T3, T7, and T8 also provided the following details.

Such children have their own program, which is more simplified. For example, they draw pictures if we go through a certain topic. We also give good grades to motivate them, so they feel they are participating in the lesson. The estimates are simplified to their level. (T3)

The tutor helps a lot in this matter. I study for 10-15 minutes, and then the tutor takes this child to a separate class and studies with him. We have our own rating scale. I give good grades for motivation. (T7)

Children with invisible disabilities do not sit in class for long; I work with them for 10-15 minutes and give them a task. Then, their tutor works with them, picks them up after 15 minutes of class, and performs tasks with them. However, it is still hard to create a separate program for children. (T8)

#### **4.8 Recommendations From the Participants**

Based on their experience and knowledge, participants recommended improving the implementation and education of children with invisible disabilities. Almost every teacher stressed that teachers need moral support from the school administration and experienced specialists due to the psychological burden. T8 stated, “Teachers need help from psychologists to explain how to work with children with invisible disabilities. They

advised the first lessons. We also need courses for teachers to teach children with invisible disabilities.”

Yes, it is a moral burden. Therefore, teachers must be morally and positively attuned to the education of children with invisible disabilities. Moral support and the creation of conditions for learning are needed from the state and the school administration. And also, when teaching children with invisible disabilities. (T3)

On the part of the state, I cannot say anything. Nevertheless, on the part of the school administration, if a child with an invisible disability appears in the classroom, then the school administration should be in the first lessons and see from which side it can support the teacher. Suppose a teacher in some area needs help understanding how to teach a child. In that case, the school administration should give advice, invite a specialist, or send them to another school to visually see how they work with children with invisible disabilities. More practice because we get theory in the courses, but we want more practical information. (T4)

We need to reduce paperwork as it takes up a lot of time. For example, one teacher makes 12 documents for one class. For a child with an invisible disability, it is additionally necessary to make a report to the class teacher and the school administration about his behavior and academic performance. This documentation kills all desire to work with children with invisible disabilities. Special courses are needed specifically from specialized institutions with special teachers to see how they work with children. Moreover, teachers need to support such children and not be indifferent. (T6)

We need the help of a specialist or an experienced teacher who has encountered teaching students with an invisible disability to show how to work with documents and make an individual plan for a child with this diagnosis. In particular, this help

is needed for young professionals to avoid being afraid of the situation when teaching a child with a diagnosis. Create master classes for teachers. (T7)

Three participants mentioned that financial support is needed to raise motivation and create classroom conditions for teaching children with invisible disabilities. T5 pointed out, “Financial assistance is needed to prepare the classroom with the necessary equipment and materials for teaching children with invisible disabilities. However, we are now fully engaged in the training and organization of the educational process.”

Teachers should be given a reward, or a salary increase when teaching children with invisible disabilities to increase motivation. Furthermore, financial support will provide everything necessary to educate students with invisible disabilities. It is necessary to send teachers abroad for internships or additional courses where inclusive education is promoted to see and learn new things, such as art therapy or music therapy. (T1)

We need financial support to create conditions for learning. Also, financial reward for teachers is needed when teaching children with invisible disabilities; for teachers, it is an energy-consuming process and requires much effort to teach a child with an invisible disability. It is difficult with ordinary children, but here, it is also necessary to consider the characteristics of a child with an invisible disability. (T3)

In addition, T7 highlighted that it is not a purpose for her motivation.

All teachers gave their recommendations indicating that it is necessary to improve the implementation of inclusion in their classrooms. Almost every teacher pointed out the importance of support from the school administration in reducing paperwork and the help of an experienced or special teacher from special educational institutions. The need to motivate teachers through financial rewards was also mentioned.

## 4.9 Conclusion

This chapter provided the findings from interviews with teachers, which explored teachers' experiences and perceptions regarding the inclusion of students with invisible disabilities in schools in Kazakhstan. All participants were teachers of the same school. When asked how participants understand the term “invisible disability,” there was no clear definition of this term. Almost all teachers have experience working with students with special educational needs. Moreover, more than half of the participants had a positive attitude toward the fact that students with an invisible disability would study in their classes. However, all teachers stressed the need for practical knowledge related to the education of children with invisible disabilities.

There were also common problems with the fact that the diagnosis of students is hidden or has no official confirmation, which aggravates the learning process. In addition, teachers have to maintain a balance between the general curriculum and an individual approach to students with a diagnosis.

Almost all teachers stressed needing moral support from the school administration or specialized teachers. Moreover, it was proposed that teachers be given special training in particular institutions or internships abroad to learn how to meet the educational needs of students with invisible disabilities. Financial support was viewed as an effective way to increase motivation among teachers. In the next chapter, a discussion of these findings will be provided.

## **Chapter 5 Discussion**

### **5.1 Introduction**

In this chapter, the study's findings regarding teachers' experiences and perceptions of the inclusion of students with invisible disabilities in Kazakhstan schools are discussed. The study aimed to explore how teachers conceptualize invisible disabilities, the enablers and challenges they face in attending to the needs of students with invisible disabilities, the implications of the findings for policy, research, and practice, and the participants' own experiences working with these students.

This chapter comprises six sections, each exploring crucial aspects of teachers' experiences and perceptions regarding including students with invisible disabilities. Beginning with "Understanding Invisible Disabilities," the chapter delves into participants' comprehension of these conditions. It then navigates through "Attitudes Toward Inclusion of Students with Invisible Disabilities," examining teachers' perspectives on inclusive practices. The subsequent section, "Special Training," delves into the necessity and efficacy of specialized education for teachers in this context. Following this, "Disclosing Disabilities and Official Supporting Evidence" sheds light on the challenges and implications associated with disclosing disabilities and the availability of official supporting evidence. Moving forward, "Support for Teachers" discusses the support structures and resources needed to facilitate effective teaching in inclusive classrooms. Finally, the chapter culminates in a comprehensive "Conclusion," synthesizing key findings.

### **5.2 Understanding "Invisible Disabilities"**

One notable finding from this study is that the participants, despite their experience in education, demonstrated a lack of understanding regarding invisible disabilities. For

instance, when asked about their conceptualization of invisible disabilities, some participants provided descriptions that primarily focused on visible physical impairments or conditions, such as Down syndrome. Moreover, some participants expressed uncertainty or ambiguity in their responses, indicating lack of knowledge regarding the nature and characteristics of invisible disabilities. This suggests a narrow interpretation of the term, overlooking the diverse range of conditions encompassed by the umbrella term 'invisible disabilities'. According to Gyasi et al. (2020), research has shown that when teachers lack sufficient knowledge and understanding of the unique needs of students, it can result in the needs of students with invisible disabilities being ignored and unrecognized. This finding underscores the need for further education and awareness-raising initiatives among teachers to enhance their understanding and conceptualization of various types of invisible disabilities. In addition, the teachers in the interview provided definitions that were more aligned with those of students who were not interested in the lesson than with individuals with invisible disabilities. The participants believed that such children were impulsive and hyperactive and found sitting for an extended period in class challenging. They also mentioned that these children get tired quickly and need help to perform general tasks. As a result, the teachers tend to assign them more manageable tasks such as drawing. This can have a significant impact on the way students with invisible disabilities are perceived and treated in the classroom.

In conclusion, while the participants in this study demonstrated varying levels of understanding regarding the conceptualization of invisible disabilities, there is a clear need for ongoing education and professional development initiatives to enhance educators' knowledge and awareness in this area. By promoting a more comprehensive understanding of invisible disabilities, educators can better support the inclusion and success of students with invisible disabilities in the educational setting.

### **5.3 Attitudes Toward Inclusion of Students with Invisible Disabilities**

This study's findings reveal teachers' experiences working with students with invisible disabilities and their attitudes toward these children. Agavelyana et al. (2020) found that teachers often hesitate to embrace the concept of inclusion as they may need more preparation to accommodate the needs of children who require an individualized curriculum or have complex disorders. However, it was encouraging to note that some participants had a positive outlook toward inclusion and believed that students with invisible disabilities have equal opportunity to be educated in mainstream schools. According to Agavelyana et al. (2020), male teachers are more optimistic than their female counterparts regarding attitudes toward inclusion. Although the man also had a positive attitude towards teaching students with invisible disabilities in this study, this cannot be an evidentiary factor since he was the only male participant. To thoroughly compare the effect of gender on the perception of students with an invisible disability, further studies with more male participants is needed.

Some participants also had negative attitudes towards inclusion, and few teachers were neutral. Although some participants expressed a neutral attitude toward the inclusion of students with an invisible disability, their responses were more similar to negative ones, referring to the fact that previously, students with a diagnosis studied separately. The negative beliefs confirm findings from another study conducted in Almaty, Kazakhstan, where teachers believed that students should be included in general education classes depending on the degree of disability, and most often, children with invisible disabilities should study in specialized classes or specialized schools (Yussupova & Issabayev, 2022). The post-Soviet teaching methods in Kazakhstan influence teachers' attitudes toward inclusion, emphasizing separate institutions for children with disabilities (Makoelle &

Somerton, 2021; Yussupova & Issabayev, 2022). According to Vygotsky's theory (1986), teachers' perceptions are influenced by culture and history. Vygotsky (1986) believed that cultural and historical factors shape individuals' thinking. It is essential to note that while the history of post-Soviet education still impacts it, cultural factors do not seem to have a negative influence. Additionally, this study contrasts with research conducted in Cook Island, where some teachers believed that children could have an invisible disability as punishment for their parents' actions (Page et al., 2019).

Teachers' beliefs and attitudes about education, students, and teaching methods are all influenced by the culture and history in which they live and work. Addressing the negative attitudes towards inclusion and preparing teachers for the transition is crucial to ensuring a smooth implementation. Therefore, it is essential to educate society about invisible disabilities and their impact on students' learning to promote inclusive attitudes.

#### **5.4 Special Training**

It is inspiring to see teachers go above and beyond to create inclusive learning environments that benefit all students. Teachers have attempted to create individual programs for students with invisible disabilities without professional knowledge solely based on their observations. However, teachers should develop and provide educational materials designed to cater to the needs of students with invisible disabilities, regardless of whether there are currently students with such needs in the classroom (Matthews, 2009). This means that educational materials should be prepared in advance to ensure full inclusion from the outset rather than solely reacting to the arrival of students with invisible disabilities. This proactive approach acknowledges that the actual needs of students may only sometimes be immediately apparent and can remain hidden or emerge throughout the learning process. By implementing this requirement, schools create an inclusive

environment that anticipates and addresses the diverse educational needs of all students, fostering equal opportunities for learning and promoting a supportive and accommodating educational experience.

The lack of knowledge has led to a growing desire among all participants to take practical courses to ensure an inclusive educational process for students with invisible disabilities. This study confirmed a study conducted by Seilkhanov (2020) on the importance of conducting specialized courses for teachers. However, the participants stressed that they needed practical courses either in specialized educational institutions or from narrow specialists since the courses provided at the university or advanced training were superficial and very short, which, in their opinion, needed to be improved in practice. In a study by Yusupova and Issabayev (2022), it was also revealed that teachers in Almaty schools claimed that the knowledge they received was theoretical and they needed more practical courses. Consequently, there is a pressing need for specialists with expertise in invisible disabilities to aid in the identification and understanding of students' unique requirements. Besides, teachers express concerns about needing specialists who can provide valuable advice and guidance in effectively teaching children with special needs.

### **5.5 Disclosing Disabilities and Official Supporting Evidence**

The participants' findings highlight the challenges they faced while identifying students with invisible disabilities because of the lack of official supporting evidence of documents of diagnoses and parental reluctance to disclose their child's invisible disability. Some parents may feel embarrassed or ashamed of their child's disability and may worry about how others will perceive their child or their family (Page et al., 2019). They may also fear that their child will be stigmatized or discriminated against if others know about their disability (An et al., 2020).

Kazakhstan's history as part of the Soviet Union, has impacted the treatment of children with disabilities, which also confirms Vygotsky's theory about the influence of historical factors on perceptions of humans. Unfortunately, in the past, children with disabilities were often viewed as a burden and were not given the same opportunities as other children. It was believed that they had fixed or limited potential, which was a harmful and unfair stereotype (An et al., 2020).

There have been efforts in recent years to change negative perception of people with disabilities in Kazakhstan and provide more support and resources for children with invisible disabilities. As a result, there has been improvement in the detection of autism spectrum disorder (ASD) in children. The number of registered cases of children with ASD in Kazakhstan has risen from 77 in 2003 to nearly 3820 in 2018 (An et al., 2020). This increase in reported cases is a positive development as it indicates that more children are getting diagnosed and receiving the support they need to thrive. It is encouraging to see that recent progress has been made in developing healthcare services provision for autistic children in Kazakhstan. A roadmap for 2019-2020 has been introduced to advance healthcare provision for ASD children. This roadmap addresses the creation of a Republican Resource ASD Center, analyzing current laws and enactments regulating health service delivery for children with autism, training on early diagnostic screening methods, and others.

The importance of early diagnosis in children with invisible disabilities is highlighted in a Cohen (2012) study conducted at the Lutheran Church Special School for the Mentally Handicapped in Kisumu, Kenya. A noteworthy concern within the school pertains to the age at which students join this educational institution, typically at nine. This late enrollment adversely affects the early diagnosis of students with autism and further extends the duration required for them to adapt to social environments successfully. As a

result, these factors may hinder the student's ability to develop essential social skills and experience meaningful inclusion within broader society. To foster more compelling educational experiences for students with invisible disabilities, it is imperative to address these issues and implement strategies that promote early diagnosis and social integration from an early age. All these steps are significant as they raise awareness about invisible disabilities and help identify it in early stages.

### **5.6 Support for Teachers**

The study's findings shed light on the participants' recommendations for improving the implementation and education of children with invisible disabilities. One key theme that emerged from their experiences and knowledge was the need for adequate support and resources to facilitate effective teaching practices. In particular, all participants stressed that they needed help from school principals. The study by Khaleel et al. (2021) also stated that principals play a crucial role in education since they ensure that schools operate efficiently. They are essential to managing administrative functions, implementing educational policies, and representing the school in the community. Moreover, principals mentor teachers and other staff members, promoting ethical and professional growth (Khaleel et al., 2021).

The need for the presence of school principals in the first classes of teachers and assistance with advice was expressed by participants whose work experience is less than ten years. This shows that it is essential for young teachers to be accompanied and supported by school principals in the first stages. It is imperative to acknowledge the role of initial teacher training at pedagogical universities in preparing educators for inclusive education practices. Pedagogical universities should prioritize training all teachers on inclusive education practices to ensure they are well-equipped to create inclusive

environments right from the start of their careers. The findings of Yusupova and Issabayev (2022) study underscore the importance of integrating comprehensive training modules on inclusive education within the curriculum of pedagogical universities. Such training should encompass various topics, including understanding invisible disabilities, implementing inclusive teaching strategies, creating inclusive classroom environments, and supporting students with diverse learning needs.

The findings of this study revealed that participants expressed their concerns about the excessive paperwork and administrative tasks associated with teaching children with invisible disabilities. Teachers expressed the same point of view in a study by Yusupova and Issabayev (2022). They emphasized that these tasks often divert their attention from focusing on the quality of education they provide. In this regard, they urged for streamlined processes and reduced administrative burdens to enable teachers to dedicate more time and energy to supporting their students' learning needs. These results highlight the need to address administrative challenges faced by teachers so that they can fully concentrate on their primary teaching responsibilities, which is to provide quality education to their students.

Additionally, participants stressed the importance of financial support in creating conducive classroom environments and providing necessary materials and equipment for teaching children with invisible disabilities. Regarding financial support, some participants considered increased motivation through monetary rewards. This may change the opinion of many teachers taken from the Seilkhanov (2020) study that Kazakhstan teachers do not consider it their direct responsibility to teach students with invisible disabilities. While some participants in the interview suggested that monetary rewards could increase teacher motivation, it is essential to note that this should not be the only solution. Instead, it is important to address the root causes of the problem, such as the lack of necessary materials

and resources for teaching students with invisible disabilities. Still, due to the lack of financial support and resources, teachers have to develop improvised materials to create inclusive methods, which can also reduce their motivation to work with students with invisible disabilities. Yussupova and Issabayev (2022) also confirmed the problem of the lack of educational materials, which further emphasizes the need for increased financial support and resources in this area.

Addressing the challenges that teachers face in educating children with invisible disabilities requires a multidimensional approach that includes providing adequate support, resources, and financial incentives. School principals play a crucial role in facilitating effective teaching practices while addressing administrative challenges teachers face, which is vital to enable them to provide quality education to their students. Increasing financial support and resources is essential to creating inclusive and conducive classroom environments for children with invisible disabilities.

## **5.7 Conclusion**

This chapter has discussed key findings related to the education of students with invisible disabilities. Firstly, insufficient knowledge was noted among participants, which can significantly impact the quality of education for students with invisible disabilities. Consequently, all participants expressed interest in taking specialized courses that focus more on the practical side of the education of students with invisible disabilities.

This study reveals the importance of Vygotsky's theory in understanding people's experiences and perceptions. For example, participants with a negative attitude toward including students with invisible disabilities can be connected to the historical trajectories of the Soviet era. However, the influence of culture has not been well pronounced in this study; perhaps further studies with a cultural perspective are required.

One of the obstacles highlighted by teachers is the lack of support from parents, who sometimes hide their child's disability, which can contribute to the inadequate education of such students. This happens because parents may worry that disclosing their child's disability would result in their child being treated differently or unfairly by teachers, classmates, or the broader community. They may also lack trust in the education system's ability to adequately accommodate and support their child's needs, especially if they have had negative experiences or heard stories of discrimination against students with disabilities. It is essential to note that official supporting evidence and documentation of diagnoses can help overcome this obstacle.

Finally, an essential factor for the success of the education of students with invisible disabilities is the necessary support from school management. School administrators must provide support and resources to teachers to ensure they can create inclusive learning environments that meet the needs of all students, including those with invisible disabilities. In the next chapter, the conclusion is presented.

## Chapter 6 Conclusion

### 6.1 Introduction

This chapter discusses the study's conclusion titled "Teachers' Experiences and Perceptions of Inclusion of Students with Invisible Disabilities in Schools in Kazakhstan." The chapter consists of five parts, with the first section covering the study's limitations and the second section explaining policy implications. The third section discusses the implications for practice, while the fourth section focuses solely on the implications for research. The final part of the chapter concludes the entire research study.

This study aimed to investigate the experiences and perceptions of teachers regarding the inclusion of such students and explore their conceptualizations, experiences, enablers, and challenges in attending to their needs. The study used a qualitative research design, and data were collected through semi-structured interviews with eight teachers from a mainstream school in Astana in February 2024. The research sought to answer four main research questions:

- How do teachers conceptualise invisible disabilities?
- How do teachers perceive and experience the inclusion of students with invisible disabilities in classrooms?
- What are the enablers and challenges teachers face in attending to the needs of students with invisible disabilities in Kazakhstan schools?
- What are the implications of the findings for policy, research, and practice?

Thematic analysis was used to analyze the data collected from the interviews. There were five key findings. Firstly, the study found that despite having teaching experience in education, some participants demonstrated a lack of complete understanding regarding the conceptualization of invisible disabilities.

Secondly, the study found that some participants had positive attitudes towards including children with invisible disabilities in mainstream schools and believed in treating them equally while supporting and motivating them. However, few participants were negative towards inclusion, while others remained neutral.

Theoretically, the study found that Vygotsky's theory on the impact of history important in explaining some participants' negative attitudes towards including students with invisible disabilities. The influence of culture, however, was not confirmed in this study. Nonetheless, cultural and historical factors may not significantly affect teachers' attitudes toward inclusion.

Thirdly, the challenges faced by participants in providing effective educational interventions are related to the lack of official supporting evidence of documents of diagnoses and parental reluctance to disclose their child's invisible disability.

Fourth, almost every participant in the study revealed a desire to obtain practical knowledge and courses related to the education of students with invisible disabilities. Finally, all participants pointed out the importance of support from the school administration. Moreover, the need to motivate teachers to teach children with invisible disabilities through financial rewards was also mentioned. By addressing the gaps and challenges identified in this study, we can promote more inclusive education practices in Kazakhstan.

In reviewing the research questions posed at the outset of this study, it is evident that each question has been thoroughly examined and addressed through the data collected and analyzed. The study successfully investigated how teachers conceptualize invisible disabilities, explored their perceptions and experiences regarding the inclusion of students with invisible disabilities, identified the enablers and challenges teachers face in attending to the needs of these students, and finally, explored the implications of the findings for

policy, research, and practice. Therefore, the study has effectively fulfilled its aims by providing comprehensive insights into the experiences and perceptions of teachers regarding the inclusion of students with invisible disabilities in schools in Kazakhstan. In the next section, the study limitations are presented.

## **6.2 Limitations**

It should be noted that the interviews were initially conducted in Kazakh and Russian before being translated into English; hence, there is a possibility of translation errors. Nevertheless, the primary ideas have been conveyed accurately. To mitigate the risk of translation errors, the essential concepts were translated back into Kazakh or Russian again for verification. Additionally, While the study aimed to provide comprehensive insights into teachers' experiences and perceptions of inclusion of students with invisible disabilities, it is essential to acknowledge the time constraints inherent in the research process. The scope of the study was limited by the timeframe imposed by the Master's program, which may have impacted the depth of analysis and exploration possible within the research. As a result, certain aspects of the topic may have yet to be thoroughly examined or explored in as much detail as desired.

While the time constraints of the Master's program and potential translation errors pose limitations, the study still provides crucial insights into an often overlooked issue. It highlights the challenges teachers face and the importance of addressing them to ensure the well-being and academic success of students with invisible disabilities. Moreover, by focusing on teachers' perspectives, this research offers a unique viewpoint that can complement existing literature and enrich discussions on inclusive education practices. The findings of this study underscore the need for further exploration and the development of targeted interventions to support teachers and enhance inclusive educational environments..

### **6.3 Implications and Recommendations for Policy**

The findings of this study have significant implications for policy, practice, and research. Regarding policy, the study's findings reveal the importance of developing targeted training programs, professional development initiatives, and teacher support systems. Proactively improving teachers' knowledge at the initial stage of university education aligns with broader policy goals of promoting inclusive education. This means it is crucial to improve teachers' knowledge at the initial teacher training stage of the university so that they are well-equipped to create inclusive conditions right from the start. By incorporating inclusive education courses into teacher training curricula, policymakers can ensure that future teachers have the knowledge and skills to create inclusive learning environments. This can contribute to the overall goal of fostering a more supportive and inclusive educational system for all students, regardless of their abilities or disabilities.

### **6.4 Implications and Recommendations for Practice**

In terms of practice, the study highlights the need for increased awareness and understanding of invisible disabilities among teachers, as teachers play a pivotal role in supporting students with invisible disabilities in the classroom. A more nuanced understanding of invisible disabilities is essential for teachers to effectively address the diverse needs of these students and provide appropriate accommodations and support. Integrating inclusive education courses into teacher training curricula, whether at the university level or through professional training programs, would directly impact positively teachers' knowledge and skills in supporting students with invisible disabilities. By receiving specialized education in inclusive education, teachers can better identify and educate students grappling with invisible disabilities. This would lead to more effective support and accommodations for students with invisible disabilities in the classroom. It can

help improve the quality of inclusive education practices, enhance the educational outcomes and experiences of children with invisible disabilities, and ensure they receive the support they need to succeed.

### **6.5 Implications and Recommendations for Research**

In terms of research, the study suggests that further research is needed to explore the experiences and perceptions of teachers in rural areas regarding invisible disabilities since the study was conducted in the capital city of the country, and the results of the study in the other parts of the country might be different, and provide further rich insights into the issue.

Vygotsky's theory was useful in understanding of factors shaping experiences and perceptions of teachers regarding students with invisible disabilities. Further studies need to explore theories and frameworks that helps us not only to understand, but to find context specific solutions to disability and inclusive education related challenges.

### **6.6 Conclusion**

The primary objective of this study has been accomplished, as the research investigated the inclusion of students with invisible disabilities by teachers and provided answers to four main research questions. The discussion chapter thoroughly describes the five main findings that were revealed during the study. The research questions were convincingly answered. Furthermore, at personal level, this research has positively impacted my professional skills, specifically in the areas of information retrieval and processing. Additionally, the research has highlighted the significant importance of the issue concerning the inclusion of students with invisible disabilities. Despite encountering minor limitations, this study has significantly contributed to establishing a solid foundation for future research in inclusive education.



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## Appendix A



**Thesis Title:** Teachers' Experiences and Perceptions of Inclusion of Students with Invisible Disabilities in Schools in Kazakhstan  
**Appendix \_\_ – Declaration of the Use of Generative AI**

I hereby declare that I have read and understood NUGSE's policy concerning appropriate use of AI and composed this work independently (please check one):

- with the use of artificial intelligence tools, or  
 without the use of artificial intelligence tools.

(If you have used AI tools as defined in the GSE policy document, please complete the rest of this form.)

During the preparation of this thesis/examination, I used Grammarly, ChatGPT [NAME OF TOOL] to brainstorm ideas, paraphrase, check grammar, find synonyms, [REASON]

I also declare that I

- am aware of the capabilities and limitations of AI tool(s),  
 have verified that the content generated by AI systems and adopted by me is factually correct,  
 am aware that as the author of this thesis I bear full responsibility for the statements and assertions made in it,  
 have submitted complete and accurate information about my use of AI tools in this work, and  
 acknowledge that there may be disciplinary consequences if I have not followed NUGSE's guidelines regarding AI appropriate use.

Name: Zhulduz Tergekussizova  
Date: 19.04.24

Signature: [Signature]

<sup>1</sup> Examples of REASON: brainstorm ideas / find or select sources on a topic / paraphrase / structure and organize the written text / edit the text for clarity and grammar / ask for tips to improve coherence / cite and reference sources

## Appendix B

### Consent Form

#### CONSENT FORM

**Teachers' experiences and perceptions of inclusion of students with invisible disabilities  
in schools in Kazakhstan.**

I hereby agree to participate in research on teachers' experiences and perceptions of inclusion of students with invisible disabilities in schools in Astana, Kazakhstan. I understand that I am participating freely and without being forced in any way to do so. I also understand that I can stop participating at any point should I not want to continue, and that this decision will not in any way affect me negatively. I understand that this is a research project whose purpose is not necessarily to benefit me personally in the immediate or short term. I understand that my participation will remain confidential. I also agree to the audio recording of my participation. I understand that I might be requested to be interviewed again during the last round of the data collection process. I understand that the information that I provide will be stored on a USB stick and will be used for research purposes now or at a later stage.

**Signature of participant**

.....

**Date:.....**

## КЕЛІСІМ

**Қазақстан мектептерінде мүгедектігі көрінбейтін студенттерді қосу бойынша  
мұғалімдердің тәжірибесі мен қабылдауы.**

Төменде қол қойған мен Астана, Қазақстан мектептерінде мүгедектігі көрінбейтін студенттерді қосу бойынша мұғалімдердің тәжірибесі мен қабылдауын зерттеуге қатысуға келісемін. Мен өз еркіммен және ешқандай қысымға ұшырамай қатысатынымды түсінемін. Сондай-ақ, егер мен жалғастырғым келмесе, кез келген уақытта қатысуды тоқтата алатынымды және бұл менің шешуші еркім маған теріс әсер етпейтінін түсінемін. Мен бұл ғылыми жоба екенін түсінемін, оның мақсаты дереу немесе қысқа мерзімді негізде менің жеке пайдам емес. Менің қатысуым құпия болып қала беретінін түсінемін. Мен сондай-ақ қатысуымның аудиожазбасына келісемін. Мен деректерді жинаудың соңғы кезеңінде сұхбатқа тағы бір рет шақырыла алатынымды түсінемін. Сондай-ақ, Мен берген ақпарат USB флэш-дискісінде сақталатынын және қазіргі уақытта немесе болашақта зерттеу мақсатында пайдаланылатынын түсінемін.

Қатысушының қолы.....

Күні: .....

## СОГЛАШЕНИЕ

**Опыт и восприятие учителей по включению студентов с невидимыми  
инвалидностями в школах Казахстан.**

Я, нижеподписавшийся, соглашаюсь участвовать в исследовании опыта и восприятия учителей по включению студентов с невидимыми инвалидностями в школах Астаны, Казахстан. Я понимаю, что участвую добровольно и никаким образом не подвергаясь давлению. Я также понимаю, что могу прекратить участие в любой момент, если не захочу продолжать, и что эта моя решающая воля никаким образом не повлияет на меня негативно. Я осознаю, что это исследовательский проект, цель которого не обязательно заключается в моей личной выгоде на немедленной или краткосрочной основе. Я понимаю, что мое участие будет оставаться конфиденциальным. Я также соглашаюсь на аудиозапись моего участия. Я понимаю, что могу быть приглашен(-а) для интервью еще раз в последний этап сбора данных. Я также понимаю, что предоставленная мной информация будет сохранена на USB-накопителе и будет использоваться в исследовательских целях в настоящее время или в будущем.

Подпись участника.....

Дата:.....

## Appendix C

### Interview Schedule

**Name:** Zhulduz Tergeussizova

**Study:** Teachers' experiences and perceptions of inclusion of students with invisible disabilities in schools in Astana, Kazakhstan

**Program:** M.Sc. Ed. Leadership in Inclusive Education

The inquiries enumerated below will act as a framework for my interviews. It's essential to recognize that the order and precise phrasing of these inquiries may differ among various interviews in accordance with the adaptable nature of qualitative research.

#### **1. How do teachers perceive invisible disabilities?**

- a. Can you describe your understanding of invisible disabilities and how you perceive them as a teacher?
- b. What types of invisible disabilities do you believe are most prevalent among your students, and why?
- c. Have you received any formal training or professional development related to supporting students with invisible disabilities? If so, how has this training shaped your perception and practices?
- d. Can you share an example of a situation where you had to adjust your teaching methods or classroom environment to accommodate a student with an invisible disability? What did you learn from that experience?

#### **2. What are the enablers and challenges that teachers face in attending to the needs of students with invisible disabilities in Kazakhstan schools?**

- a. What are some common challenges that teachers encounter when it comes to identifying students with invisible disabilities in

Kazakhstan schools?

- b. Are there any cultural or societal factors in Kazakhstan that may influence how teachers perceive and attend to the needs of students with invisible disabilities?
- c. How do teachers navigate the balance between individualized support for students with invisible disabilities and the requirements of the standardized curriculum in Kazakhstan?

### **3. Recommendations and suggestions**

- a. Based on your expertise, what are your top recommendations for promoting the inclusion of students with invisible disabilities in educational settings?
- b. How can schools and educational institutions better prepare teachers and staff to work with students with invisible disabilities? What training and professional development initiatives do you recommend?
- c. Can you provide specific suggestions for teachers and school administrators on how to create a more inclusive classroom environment for students with invisible disabilities?

## Расписание интервью

**Имя:** Жулдуз Тергеусизова

**Исследование:** Опыт и восприятие учителей по включению студентов с невидимыми инвалидностями в школах Астаны, Казахстан

**Программа:** Магистр наук в области руководства в инклюзивном образовании

Перечисленные ниже вопросы будут служить основой для моих интервью. Важно учитывать, что порядок и точная формулировка этих вопросов могут различаться в разных интервью, с учетом гибкой природы качественного исследования.

### 1. Как учителя воспринимают невидимые инвалидности?

- a. Можете ли вы описать свое понимание невидимых инвалидностей и как вы, как учитель, их воспринимаете?
- b. Какие виды невидимых инвалидностей, по вашему мнению, наиболее распространены среди ваших учеников, и почему?
- c. Получали ли вы формальное обучение или профессиональное развитие, связанное с поддержкой студентов с невидимыми инвалидностями? Если да, как это обучение повлияло на ваше восприятие и практику?
- d. Можете ли поделиться примером ситуации, когда вам пришлось адаптировать методы обучения или обстановку в классе, чтобы удовлетворить потребности студента с невидимой инвалидностью? Что вы извлекли из этого опыта?

### 2. Какие возможности и проблемы сталкиваются учителя при

**удовлетворении потребностей студентов с невидимыми  
инвалидностями в школах Казахстана?**

- a. Какие общие вызовы возникают у учителей в процессе выявления студентов с невидимыми инвалидностями в школах Казахстана?
- b. Существуют ли культурные или общественные факторы в Казахстане, которые могут влиять на то, как учителя воспринимают и уделяют внимание потребностям студентов с невидимыми инвалидностями?
- c. Как учителя находят баланс между индивидуальной поддержкой студентов с невидимыми инвалидностями и требованиями стандартизированной программы в Казахстане?

**3. Рекомендации и предложения**

- 1) На основе вашего опыта, какие рекомендации вы даете для продвижения инклюзии студентов с невидимыми инвалидностями в образовательных учреждениях?
- 2) Как школы и образовательные учреждения могут лучше подготовить учителей и персонал к работе со студентами с невидимыми инвалидностями? Какие программы обучения и профессионального развития вы рекомендуете?
- 3) Можете ли предоставить конкретные рекомендации для учителей и администраторов школ по созданию более инклюзивной образовательной среды для студентов с невидимыми инвалидностями?

## Сұхбат кестесі

**Аты:** Жулдуз Тергеусизова

**Зерттеу:** Астана, Қазақстан мектептерінде мүгедектігі көрінбейтін студенттерді қосу бойынша мұғалімдердің тәжірибесі мен қабылдауы

**Бағдарлама:** Инклюзивті білім берудегі көшбасшылық саласындағы ғылым магистрі

Төмендегі сұрақтар менің сұхбаттарыма негіз болады. Бұл сұрақтардың тәртібі мен нақты тұжырымы сапалы зерттеудің икемді сипатын ескере отырып, әртүрлі сұхбаттарда әртүрлі болуы мүмкін екенін ескеру маңызды.

### 1) Мұғалімдер көрінбейтін мүгедектікті қалай қабылдайды?

- a) Сіз көрінбейтін мүгедектік туралы түсінігіңізді және мұғалім ретінде оларды қалай қабылдайтыныңызды сипаттай аласыз ба?
- b) Сіздің оқушыларыңыз арасында көрінбейтін мүгедектіктің қандай түрлері жиі кездеседі деп ойлайсыз және неге?
- c) Сіз мүгедектігі көрінбейтін студенттерді қолдауға байланысты ресми білім алдыңыз ба немесе кәсіби дамыдыңыз ба? Олай болса, бұл оқыту сіздің қабылдауыңыз бен тәжірибеңізге қалай әсер етті?
- d) Көрінбейтін мүгедектігі бар студенттің қажеттіліктерін қанағаттандыру үшін оқу әдістерін немесе сынып ортасын бейімдеуге тура келген жағдайдың мысалымен бөлісе аласыз ба? Сіз бұл тәжірибеден не білдіңіз?

**2) Қазақстан мектептерінде көрінбейтін мүгедектігі бар студенттердің қажеттіліктерін қанағаттандыру кезінде мұғалімдер қандай мүмкіндіктер мен проблемаларға тап болады?**

- a) Қазақстан мектептерінде көрінбейтін мүгедектігі бар студенттерді анықтау процесінде мұғалімдерде қандай жалпы сын-қатерлер туындайды?
- b) Қазақстанда мұғалімдердің көрінбейтін мүгедектігі бар студенттердің қажеттіліктерін қабылдауына және оларға назар аударуына әсер ететін мәдени немесе қоғамдық факторлар бар ма?
- c) мұғалімдер мүгедектігі көрінбейтін студенттерді жеке қолдау мен Қазақстанда стандартталған бағдарламаның талаптары арасындағы тепе-теңдікті қалай табады?

**3) Ұсыныстар мен ұсыныстар**

- a) сіздің тәжірибеңізге сүйене отырып, білім беру мекемелерінде көрінбейтін мүгедектігі бар студенттерді қосуды ілгерілету үшін қандай ұсыныстар бересіз?
- b) мектептер мен білім беру мекемелері мүгедектігі көрінбейтін студенттермен жұмыс істеуге мұғалімдер мен қызметкерлерді қалай жақсы дайындай алады? Сіз қандай оқыту және кәсіби даму бағдарламаларын ұсынасыз?
- c) мүгедектігі көрінбейтін студенттер үшін неғұрлым инклюзивті білім беру ортасын құру үшін мұғалімдер мен мектеп әкімшілеріне нақты ұсыныстар бере аласыз ба?



<p><i>disabilities and the requirements of the standardized curriculum in Kazakhstan?</i></p> <p>- Such children have their own program, which is more simplified. For example, if we go through a certain topic, they draw pictures on that topic. We give grades that are good for their motivation so that they feel that they are participating in the lesson. The grades are simplified for their level.</p> <p><i>Are there any cultural or societal factors in Kazakhstan that may influence how teachers perceive and attend to the needs of students with invisible disabilities?</i></p> <p>- Of course, it all depends on society. Some schools accept these children on an equal basis; some do not. However, if children have mild forms of disabilities I believe that they should study in the same class, but if children have severe forms, then they should not be in a regular</p>	<p>Modification and Simplification of Curriculum</p> <p>Motivational Strategies</p> <p>Assessment and Grading</p> <p>Societal Attitudes</p> <p>Own Attitude</p>	<p>Teaching Methods</p> <p>Attitude</p>
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<p>school.</p> <p>Previously, children with disabilities were educated in specialized schools; that is, separately, I think it was right. It is tough to teach children with disabilities. Therefore, what happened before was correct.</p> <p><i>Have you received any formal training or professional development related to supporting students with invisible disabilities? If so, how has this training shaped your perception and practices?</i></p> <p>- I did not receive special education in teaching children with invisible disabilities. However, at seminars, we were given some information about children with disabilities, how to teach them, and what types of mild disabilities exist.</p> <p><i>Based on your expertise, what are your top recommendations for promoting the inclusion of students with invisible disabilities</i></p>	<p>Comparison of Traditional Special Education Practices with Modern Inclusive Approaches:</p> <p>Attitude</p> <p>Do not receive special education</p> <p>Professional Development</p>	<p>Old approach</p> <p>Training</p>
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<p><i>in educational settings?</i></p> <p>- This is a moral burden, so teachers must be morally and positively attuned to teaching children with invisible disabilities. Moral support needs to be obtained from school administration and the creation of learning conditions.</p> <p>Also, when teaching children with invisible disabilities, teachers should be financially rewarded because it is energy-consuming and requires much effort in order to teach a child with an invisible disability. It is difficult with ordinary children, but here, it is also necessary to take into account the characteristics of a child with an invisible disability.</p>	<p>Emotional Support</p> <p>Recommendations for Cultivating Positive Teacher Attitudes</p> <p>financially rewarded</p> <p>Challenges in Classroom Management</p>	<p>Recommendations</p> <p>Challenges in teaching</p>
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