

**Exploring Kazakhstani General Education Teachers' Attitudes
towards Inclusive Education**

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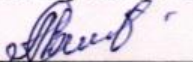
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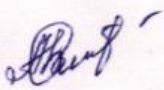
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Dear Ainura Sagandykova

This letter now confirms that your research project entitled: Exploring Kazakhstani General Education Teachers' Attitudes towards Inclusive Education has been approved by the Graduate School of Education Ethics Committee of Nazarbayev University.

You may proceed with contacting your preferred research site and commencing your participant recruitment strategy.

Yours sincerely

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May all of you stay safe and healthy during this difficult time of 2020!

**EXPLORING KAZAKHSTANI GENERAL EDUCATION TEACHERS’
ATTITUDES TOWARDS INCLUSIVE EDUCATION**

Abstract

Classroom teachers play a crucial role in educational process therefore their positive attitude towards inclusive education is the main key point in its successful implementation. The purpose of this research is to investigate general education teachers’ attitudes towards the inclusion of children with special educational needs in mainstream schools in the northern part of Kazakhstan. The study addresses two research questions: what teachers’ general attitudes towards inclusive education are and what teacher-related variables are associated with teachers’ attitudes towards inclusion. Mixed research methods were employed for the study. The quantitative data was collected via online survey with the use of the Sentiments, Attitudes and Concerns about Inclusive Education Revised (SACIE-R) Scale (Forlin, Earle, Loreman and Sharma, 2011). The qualitative data was collected in the form of one-on-one semi-structured interviews that provided detailed and context-specific data. The research revealed that overall, general education teachers’ attitudes towards inclusive education in the northern part of Kazakhstan are neutral. It means that teachers do not express a strong desire or reluctance to work with children with special educational needs. Teachers’ gender does not influence their attitudes as research showed, however their experience working with students with disabilities do play an essential role in the work making teachers more confident and promoting more positive attitudes towards inclusion. The research findings highlight the need for more in-service trainings for general education teachers. This research is relevant for university students, teachers, and scholars exploring the same topic of teachers’ attitudes towards inclusive education. The results might be beneficial for future policy guidance and useful to develop some particular strategies which can promote positive attitudes among teachers.

Keywords: inclusive education, general education teachers, attitudes, students with special educational needs, disability

СОЛТҮСТІК ҚАЗАҚСТАН ӨңІРІНДЕГІ ЖАЛПЫ БІЛІМ БЕРЕТІН МЕКТЕП МҰҒАЛІМДЕРІНІҢ ИНКЛЮЗИВТІ БІЛІМ БЕРУГЕ КӨЗҚАРАСЫ

Аңдатпа

Мұғалімдер білім беру үдерісінде маңызды рөл атқарады, сондықтан олардың инклюзивті білім беруге деген оң көзқарасы оны сәтті жүзеге асырудың негізгі көзі болып табылады. Бұл зерттеудің мақсаты – Қазақстанның солтүстік аймағындағы жалпы білім беретін мектептерде ерекше білім беру қажеттіліктері бар оқушыларды оқыту идеясына жалпы білім беретін мектеп мұғалімдерінің көзқарасын зерттеу болып табылады. Зерттеуде екі зерттеу сұрағы қарастырылады: жалпы инклюзивті білім беруге мұғалімдердің көзқарасы қандай және инклюзивті білім беруге деген мұғалімдердің көзқарасына қандай факторлар әсер етеді. Бұл жұмыста аралас зерттеу әдісі қолданылды. Сандық деректер инклюзивті білім беру бойынша сезім, көзқарас және алаңдаушылық қайта қарау шкаласын қолдану арқылы онлайн-сауалнама көмегімен жиналды (SACIE-R) (Forlin, Earle, Loreman, & Sharma, 2011). Сапалы деректер толық және мәнмәтіндік деректерді қамтитын жеке жартылай құрылымды сұхбат түрінде жиналды. Жүргізілген зерттеу жалпы алғанда Қазақстанның солтүстік аймағындағы жалпы білім беретін мектеп мұғалімдерінің инклюзивті білім беруге көзқарасы бейтарап екенін көрсетті. Бұл дегеніміз, мұғалімдер ерекше білім беру қажеттіліктері бар балалармен жұмыс істеуге қатты ниет білдірмейді. Зерттеу көрсеткендей, мұғалімдердің гендерлік факторлары олардың көзқарасына әсер етпейді, алайда ерекше білім беру қажеттіліктері бар оқушылармен жұмыс істеу тәжірибесі мұғалімдерді өзіне сенімді және инклюзияға оң көзқараста болуға ықпал ете отырып, шынымен де жұмыста маңызды рөл атқарады. Зерттеу нәтижелері орта білім беру мұғалімдерінің оқыту үдерісінен қол үзбей біліктілігін арттыру қажеттілігін растайды. Бұл зерттеу мұғалімдердің

инклюзивті білім беруге деген көзқарасын зерттейтін ЖОО студенттері, оқытушылар мен ғалымдар үшін өзекті. Алынған нәтижелер саяси басшылық үшін, сондай-ақ мұғалімдер арасында оң көзқарасты қалыптастыруға ықпал ететін арнайы стратегияларды әзірлеу үшін пайдалы болуы мүмкін.

Кілт сөздер: инклюзивті білім беру, жалпы білім беретін мектеп мұғалімдері, көзқарас, ерекше білім беру қажеттіліктері бар оқушылар, мүмкіндігі шектеулі.

**ИССЛЕДОВАНИЕ ОТНОШЕНИЯ КАЗАХСТАНСКИХ УЧИТЕЛЕЙ
ОБЩЕОБРАЗОВАТЕЛЬНЫХ ШКОЛ СЕВЕРНОГО РЕГИОНА К
ИНКЛЮЗИВНОМУ ОБРАЗОВАНИЮ**

Абстракт

Учителя играют важную роль в образовательном процессе, поэтому их положительное отношение к инклюзивному образованию является главным ключевым моментом в его успешной реализации. Целью данного исследования является изучение отношения учителей общеобразовательных школ к идее обучения учащихся с особыми образовательными потребностями в общеобразовательных школах в северном регионе Казахстана. В исследовании рассматриваются два исследовательских вопроса: какое отношение учителей к инклюзивному образованию в целом, и какие факторы влияют на отношение учителей к инклюзивному образованию. В работе использовались смешанные методы исследования. Количественные данные были собраны с помощью онлайн-опроса с использованием пересмотренной шкалы чувств, отношений и беспокойств по поводу инклюзивного образования (SACIE-R) (Forlin, Earle, Loreman, & Sharma, 2011). Качественные данные были собраны в форме индивидуального полуструктурированного интервью, которые содержали подробные и контекстуальные данные. Проведенное исследование показало, что в целом отношение учителей общеобразовательных школ к инклюзивному образованию в северной части Казахстана является нейтральным. Это означает, что учителя не выражают сильного желания или нежелания работать с детьми с особыми образовательными потребностями. Как показало исследование, гендерный фактор учителей не влияет на их отношение, однако опыт работы с учениками с особыми образовательными потребностями действительно играет существенную роль в

работе, делая учителей более уверенными в себе и способствуя положительному отношению к инклюзии. Результаты исследования подтверждают необходимость повышения квалификации учителей среднего образования без отрыва от производства. Данное исследование актуально для студентов ВУЗов, преподавателей и ученых, исследующих аналогичную тему отношения учителей к инклюзивному образованию. Полученные результаты могут быть полезны для политических руководств, а также для разработки определенных стратегий, способствующих формированию положительного отношения среди учителей.

Ключевые слова: инклюзивное образование, учителя общеобразовательных школ, отношение, учащиеся с особыми образовательными потребностями, ограниченные возможности

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Chapter 1: Introduction

1.1. Introduction

The inclusive educational system is being actively developed in many countries around the world. Accordingly, in Kazakhstan, the educational system has been following suit. Over the past few years, inclusive educational policies and practices have been gradually implemented in Kazakhstani mainstream schools. The development of this inclusive educational system is one of the priorities of the State Program of Education Development of the Republic of Kazakhstan for 2011 – 2020. Furthermore, the rights of children with disabilities to receive quality education are enshrined in the legislation of the Republic of Kazakhstan (Denivarova & Abdresheva, 2015; Unified Monitoring Framework for Inclusive Education in the Republic of Kazakhstan, 2017). The government has amended legislation and policies to create an inclusive educational system for children with disabilities and special educational needs (SEN). It has pledged to make 70% of mainstream schools inclusive by 2019 (Human Rights Watch [HRW], 2019). Educational institutions have created the necessary conditions to enable students with disabilities to receive a high quality education and remedial assistance, while educators have been provided with professional training. Internationally, inclusive education is defined as providing all children with the opportunity for equal access to education, irrespective of any differences among the student group. The overarching idea of inclusion can be seen in the various initiatives put forth by mainstream schools when addressing the diverse needs of an incoming or existing student body (Nilsen, 2010). However, for the purpose of this research, the definition of inclusive education is limited to the inclusion of children with disabilities and SEN, since this study does not seek to delve into a discussion of the precise definition of inclusive education. When it comes to inclusive education, classroom teachers play a pivotal role as they interact closely with children on a daily basis, and the entire

learning process as a whole depends on them. It is believed that the positive attitude of the teaching staff is a key factor in the successful implementation of inclusive educational policies and practices (Saloviita, 2020, p.271). For this reason, the current study is focused on educators, their attitudes towards the inclusion of children with SEN and disabilities in mainstream schools in the northern part of Kazakhstan.

1.2. Definition of Terms

When people hear the term “inclusion,” they usually associate it with individuals with disabilities or special educational needs (SEN). Initially, inclusive education was understood as teaching students with disabilities and special educational needs in separate classes, it is only afterwards that it was accepted as a broader meaning the goal which now is to guarantee the right of all children to access learning, and success in local comprehensive schools (Concept Note, 2018, p.4; Slee, 2018). Yet, Armstrong, Armstrong, and Spandagou (2011) assert that this is highly contestable as there is no clear agreement on the definition of inclusion. The term has never been precise, and the understanding and conceptualization of it depend on the national or local context. In this vein, the Law of Education of the Republic of Kazakhstan (2007) defines inclusive education as a process that ensures equal access to education for all students, taking into account special educational needs and their individual opportunities (Article 1, Item 21-7). Booth (as cited in Polat, 2011) identifies inclusion as a philosophy based on values aimed at maximizing the participation of all in society and education by minimizing the practice of exclusion and discrimination. When the concept of inclusive education is about all students, it is often criticized by being too vague. When the term “inclusion” is used as the education of people with disabilities, it implicitly addresses such issues as disabilities or special needs, which might be an obstacle to educational inclusion. Differences in interpretation can lead to differences in implementation (Concept Note, 2018, p.4).

It is worth noting that the terms “regular school” and “mainstream school” within Kazakhstani educational policies and literature contexts are used interchangeably in this work, to refer to general education schools for children aged 6-18 years provided free of charge. The term “special school” sometimes is replaced by the phrase “correctional school” since special needs education is provided by “correctional schools”, as they are called in Kazakhstan (Organization for Economic Co-operation and Development [OECD], 2014, p.34).

The next key elements in the current study are disability, impairment, and special educational needs since the issue under consideration are attitudes towards inclusive practices for children with disabilities or SEN. The definitions for these two terms, disability and impairment, will be discussed in the frame of the social model of disability in which these terms are separated. In this context, impairment is an abnormality of the body, such as a restriction or the malfunctioning of a limb (Haegele & Hodge, 2016, p.197). Lorella Terzi (2004) provides a similar definition that was retrieved from work done by Michael Oliver, a disabled scholar and a father of the social model of disability.

On the other hand, “disability is the disadvantage or restriction of activity caused by a social organization that does not take into account people who have impairments and excludes them from social life” (Terzi, 2004, p.143). Upon rereading this definition, one can realize that according to the social model, disability is not caused by impairment; rather, it is a consequence of institutional and social discrimination (Terzi, 2004). The UN Convention on the Rights of Persons with Disabilities (2006) defines persons with disabilities as “those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others” (UN Convention, 2006, p.5).

The next significant term is 'special educational needs' (SEN) that relates to learning difficulties (Jantan, 2007). As Jantan (2007) cites in Cox (1985) in his doctoral thesis, the term SEN is about children that struggle to acquire knowledge in comparison to the majority of their peers and whose disability prevents them from using school facilities. However, the term has been criticized and then changed over the years because it implies the segregation of children with disabilities and assumes that their needs are different from those of all other children (Jantan, 2007). The Law on Education of the Republic of Kazakhstan (2007) defines the term persons (children) with special educational needs as "persons (children) who experience permanent or temporary difficulties in receiving education due to their health, who need special, general educational programs and educational programs of additional education" (Article 1, Item 19-3).

1.3. Statement of the Problem

Key obstacles that have hindered the progress of inclusive education are the attitudes held by teachers about the approach and a lack of training to work competently with SEN students. This is crucial as teachers have a fundamental role in preparing their students for success. Further, a teacher's practice is affected by the attitudes they hold about children with SEN. For these reasons, the way teachers actually perceive inclusive education plays a key role in how it is implemented, which has led it to become a focus area for scholars in an array of contexts. (Avramidis & Norwich, 2002; Ewing, Monsen, & Kielblock, 2018; Leatherman & Niemeier, 2007; Miesera & Gebhardt, 2018; Saloviita & Schaffus, 2016). In each of these studies, teachers' attitudes towards inclusion are either positive, neutral, or negative and depend on various factors like teachers' gender, their knowledge and experience, teaching experience with SEN children, specialized training, and the type of disorder they encounter. Avramidis and Norwich (2002) noted that while teachers are positive about inclusive education, some of them may not agree with "full

inclusion” as this depends on the nature of students’ disabilities (child-related variables) or the lack of physical and human support (environment-related variables).

There is a large amount of research on the attitude of teachers to inclusion in different countries like in the United States, Finland, Turkey, Japan, China, among others. In Kazakhstan, only one study, conducted in Pavlodar, has focused on school teachers’ attitudes. A general neutral attitude of teachers towards inclusion was revealed. Our present research was also intended to define general education teachers’ attitudes towards inclusive education, but in another region of Kazakhstan. The teachers of four mainstream schools were involved as participants in the research. The teachers of these schools either fully or partially completed their in-service training program, “The Content of the Educational Environment in the Development of Inclusive Education.” Some of these teachers have experienced working with students with SEN who are either home schooled or are attending special classes within a regular school.

Thus, the current research has investigated the relationship between teachers’ attitudes and teacher background variables such as their age, gender, work experience.

1.4. Purpose of the Study

The purpose of the current study was to explore Kazakhstani general education teachers’ attitudes towards the inclusion of students with disabilities and SEN in general education classrooms. The study was also geared towards discovering the factors related to teachers’ background that affect their attitudes. The results and findings of the proposed research might be used by other students and scholars investigating the same topic. The results may also contribute to the improvement of inclusive practices in secondary education in our country. The identification of existing problems related to the attitude of regional teachers to inclusion can help alleviate difficulties in the development of inclusive

education and improve inclusive practices in Kazakhstani secondary schools. The identification of such problems can also help to determine further actions to be taken for the successful implementation of inclusion and to develop specific strategies for the formation of positive attitudes among teachers of general education.

1.5. Research Questions

Since hardly any research had been conducted on the investigation of teachers' attitudes towards inclusion of students with SEN in Kazakhstan, this study has addressed the following research questions:

1. What are general education teachers' attitudes towards the inclusion of students with special educational needs in mainstream secondary schools in the northern part of Kazakhstan?
2. What teacher-related background variables (e.g., age, gender, and educational qualifications) are associated with teachers' attitudes towards inclusion?

1.6. Significance of the Study

This research is expected to be relevant for university students, teachers, and scholars exploring the topic of teachers' attitudes to inclusive education or a similar issue. As was mentioned above, the findings might be beneficial for future policy guidance and useful for developing some specific strategies to promote positive attitudes among teachers. Hopefully, the results of the study will help to improve inclusive practices in secondary school settings in Kazakhstan.

1.7. Summary

School teachers are primary stakeholders in the implementation of inclusive education, therefore, their beliefs and attitudes matter. The success in implementing effective inclusive education is contingent on teachers' positive attitudes, and hence the

academic achievement of students. After exploring the issue of teachers' attitudes, the potential contribution to the educational field of Kazakhstan might be the identification of possible ways to improve teachers' understanding of inclusive education.

The next chapter of the literature review provides a thorough analysis of previous studies on the research problem. The methodology chapter explains the research design, data collection procedure, and the methods of its analysis that were applied to pursue the current research. The findings chapter presents the data collected through an online survey and one-on-one semi-structured interviews. Then, the results of the collected data are discussed with a relation to the literature review in Chapter 5. The last chapter summarizes the results and implications of the present research.

Chapter 2: Literature Review

2.1. Introduction

As was mentioned in the previous chapter, inclusive education is a worldwide reform strategy which is aimed at including absolutely all children in mainstream schools no matter what abilities or disabilities they have. The successful implementation of inclusive education depends on the primary stakeholders' support, i.e., teachers' positive attitudes towards the model of inclusive teaching and disability as a whole (Ahmmed, Sharma, & Deppeler, 2012). This chapter examines the conceptual framework of the key elements of the research, the importance of teachers' positive attitudes and the factors affecting them, the existing literature on teachers' perception of inclusion around the world as well as Kazakhstani studies on the topic.

2.2. Conceptual Framework

In the field of social psychology, attitude is considered to be one of the main psychological experiences. Social psychology studies different definitions and models of attitudes. Attitudes are believed to directly influence behavior (Jain, 2014). Teachers' behavioral dispositions, consisting of their social attitude and personality traits, will explain the reasons for their behavior. Likewise, teachers' attitudes have an impact on their practices. The term attitude includes such concepts as feelings, emotions, beliefs, opinions, and intentions. The concepts of feelings and beliefs are going to be scrutinized in this work. Jung (as cited in Jain, 2014) explains that the broad definition of attitude is the readiness of the psyche to act or react in a certain way. Here, the connection can be made with inclusive education. Considering this, teachers' certain reaction to this philosophy leads to action or inaction. Thus, a positive or negative attitude towards an object (inclusive education, in this case) arises.

In order to better understand the attitudes teachers hold towards inclusive education, it is essential to make sense of the concept of “attitudes” from the perspective of dictionary definitions. According to an online dictionary, attitude is an expression of the favorable or unfavorable evaluation of a person, place, thing, or event. There are differing opinions on what attitude is, as many scholars, such as Gordon Allport, Si P. Robbins, and Frank Freeman, have already researched the concept (Online dictionary). Generally, the definitions they provide are interrelated and interchangeable. However, in this case, with teachers’ attitudes, it is a teacher’s reaction, be it positive, neutral, or negative, to the philosophy of inclusion. Boer, Pijl, and Minnaert (2011) highlighted the following three components of attitudes: cognitive, affective, and behavioral. The cognitive component is comprised of a person’s knowledge and beliefs about an object or event. A teacher’s knowledge and beliefs that children with disabilities should learn in inclusive classrooms could be a vivid example of this component. Their feelings about the object or event belong to the next component which is the affective one. In an inclusive setting, this component can be reflected in teachers’ feelings about the placement of a child with special needs in a mainstream school. For instance, they may feel that a child with behavioral problems tends to disrupt the classroom. The behavioral component is about an individual’s predisposition to act in a certain way. This refers to a teacher’s viewpoint on how to behave toward children with special educational needs (SEN). For example, a teacher in an inclusive classroom may refuse to provide extra support to a disabled student (Boer, Pijl, & Minnaert, 2011; Leatherman & Niemeyer, 2005).

Consequently, these three attitudinal components form an individual’s perception of an object, place, or event. However, one should bear in mind that it is not necessary that all three components form the situation. Attitudes can consist of only one of these three components (Jantan, 2007). For instance, a teacher may have a positive attitude towards

the inclusion of students with SEN (i.e. their behavioral predisposition towards these children) but may not accommodate them for various reasons; most of the time they may not have the relevant skills or knowledge to do so (i.e. cognition). Alternatively, teachers may have positive attitudes towards the inclusion of children with SEN, simply because they think this is politically correct (without any of the feelings, moods, sympathies or emotions that people might have in relation to the object).

2.3. The Importance of Teachers' Attitudes

In 1994, the UNESCO Salamanca Statement was a key driving force in the development of inclusive education. Prior to that, people with disabilities were not perceived, and, as a consequence, they were mostly segregated since the society of that time (even still nowadays) was characterized as having different stereotypes, prejudices, stigma and misconceptions (Waligore, 2002). However, after the launch of the, then, brand new concept of “inclusive education”, people’s perceptions of individuals with disabilities changed substantially (Saloviita & Schaffus, 2016). Since then, societies started to welcome people with disabilities, thus gradually changing their attitudes towards them.

As stated earlier, inclusive education is being developed all over the world. The main facilitators of its implementation are resources, policies, finances, senior management team of school, students, and teachers. Among all these, the latter play a significant role in both the teaching process and the successful implementation of inclusive programmes (Miesera & Gebhardt, 2018). In addition to sound knowledge of their subject, of great importance is the attitude of teachers towards inclusive practices. That is why it has become the subject of numerous studies (e.g., Avramidis & Norwich, 2002; Leatherman & Niemeyer, 2005; Leatherman, 2007; Saloviita & Schaffus, 2016; Ewing, Monsen, & Kielblock, 2018).

Regarding teachers, it should be noted that their attitude towards their work matters to the inclusive learning process. According to Gyimah, Ackah, and Yarquah (2010), the quality of this type of education is contingent on teachers' attitudes towards children with disabilities. Then, the teachers' attitudes to such children form teacher-student interactions; this refers to not only the relationship between teachers and students with disabilities but also between these children and their typically developing peers and the attitudes of the latter. Different studies conducted across the world report teachers' perception of inclusion as being either positive or negative. This depends on various factors which are discussed in the next part of this chapter. Now it is important to stress that if teachers are positive, this facilitates the implementation of policies that promote the child's right to education in regular classes (Waligore, 2002). Leatherman (2007) also reported that teachers with positive views included children with disabilities in all aspects of the class. Moreover, the teacher's positive attitude affects the student's motivation and feelings about school and learning in general.

Unfortunately, as studies have revealed and practice has shown, teachers may have a negative perception of children with disabilities or SEN. Because of this, the process whereby inclusive education is implemented is decelerated, caused by a negative attitude that is a strong barrier to overcome. A negative attitude towards inclusion is associated with a less inclusive learning environment in the classroom. Feedback from teachers show that educators with a negative attitude toward inclusion leads to students with less satisfaction and cohesion in the classroom, and more friction, competition, and difficulties prevail between students (Ewing, Monsen, & Kielblock, 2018). Therefore, it is very important to foster teachers' welcoming attitude towards children with disabilities and inclusion overall. However, in their study, Avramidis and Norwich (2002) assume that teachers' negative or neutral attitude may change over time as all the aspects of inclusion

develop within this period, that is to say, the more teachers deal with students with SEN, the more confident they become in their work.

In view of this, teachers' attitudes towards the implementation of inclusive policy, either positive, negative, or neutral, determines the success of the inclusive classroom (Jenson, 2018). Their attitudes also have an impact on students with special needs, their adaptation in a regular school environment, and their school life in general. Thus, teachers are pivotal figures in the effectiveness of inclusive classrooms because inclusion fundamentally depends on their willingness to contribute to its development and to meet the needs of all students.

2.4. Factors Influencing Teachers' Attitudes to Inclusion

The literature on the subject has revealed that teachers' attitudes towards inclusive education vary across the field of education according to subjects taught and grade level. Teachers' perceptions, whether positive or negative, are mainly shaped by various factors such as children's abilities and disabilities, and available support in the classroom (Leatherman, 2007). Avramidis and Norwich (2002) and Jenson (2018) point out that there are numerous factors that affect teachers' attitudes towards inclusion and they group these under three broad categories: teacher-related, child-related, and school-related variables. Primarily, this typology was developed by Salvia and Munson in 1986 (Avramidis & Norwich, 2002). Interestingly, within the Bangladesh context, Ahmmed, Sharma, and Deppeler (2012) divide such variables into different categories: demographic, contact, training, success, and perceived support variables. Nonetheless, this subsection will explore most of these factors and the ways they influence the attitudes in the context of the conducted research studies.

2.4.1. Teacher-related variables. Teachers' characteristics such as gender, age, years of teaching experience, training and qualifications, and other personality factors that might influence their attitudes towards inclusion are referred to as teacher-related variables.

Avramidis and Norwich (2002) made the assertion that numerous studies report controversial results about the influence of gender on teachers' attitudes. While some studies have found gender has no impact on attitudes towards children with special needs, there also exists research that indicates that female teachers have a greater level of tolerance for special needs students than their male counterparts. Research done by Saloviita and Schaffus (2016) showed that female Finnish teachers, when compared to their male counterparts, had higher levels of positive regard for special needs students. That being said, only Germany reported statistics of significance in relation to female teachers having more tolerant attitudes. Spect et al. (2016) then added that while female teachers may regard special needs students more favorably, male teachers have a stronger belief in those students' levels of self-efficacy. In contradiction to these studies, Misera and Gebhart (2018) found no correlation among self-efficacy levels, the sex of the teacher and their attitudes toward special needs students in Canada and Germany. Looking at age or generational differences, Finland found no such correlation while studies done in Germany have found that younger teachers may hold more favorable views toward special needs students when compared with older teachers (Saloviita & Schaffus, 2016). In accordance with Jenson (2018), the data presented in his study did not provide any information on the age range of the participants, so the age whereby teachers have more positive or negative perceptions was unknown, but the research findings certainly do prove that age is a factor.

Some research indicates that levels of teaching experience and age contribute to how inclusion is accepted, while other studies assert that little to no correlation exists among these factors. This can be seen in Forlin's (1995) research which came to the conclusion that younger, less-experienced teachers are more in favor of inclusion efforts than more-experienced ones. Other studies (Avramidis & Norwich, 2002), however, indicate that teacher attitudes are affected neither by years of teaching experience nor age. A second factor is the physical educational environment, inclusive of the working conditions of school staff members. This could mean that regular education classroom teachers may need more support, whether from a special needs teacher, administrators or physical classroom space and resources. Looking through the Kazakhstani lens and how to support our students with disabilities, it is important to fully investigate teachers' professional needs so as to allow for successful and sustainable implementation of inclusive practices.

Teacher training is a predominant factor which impacts teachers' attitude (Gyimah et al., 2010). It has been found that training in special or inclusive education has consistently influenced educators' attitudes. A study by Gyimah et al. (2010) has demonstrated a positive correlation between such training and positive attitudes. Untrained teachers feel they are not ready enough to encounter the hardships of inclusive education. Some scholars have stated that teachers feel positively towards the general philosophy of inclusive education, while others have argued that teachers have serious reservations about the practices involved in inclusive education (Boer, Pijl & Minnaert, 2011). In this light, teachers have expressed the necessity of in-service training and workshops for them to better meet the needs of children who have special needs (Leatherman, 2007). When teachers receive such assistance in the form of education and self-development training, they feel more confident when working in inclusive settings, thus increasing their level of

self-efficacy. The results of another study have also stressed the influence teacher education courses have on attitudes and self-efficacy (Miesera & Gebhardt, 2018).

Closely related to teacher training is the factor of background knowledge, either theoretical or practical, on inclusive education. When teachers are aware of the concepts of inclusion and inclusive practices, they have the main base, which similarly to what was explained in the previous passage about teacher education, gives them more confidence and the motivation to work in an inclusive environment (Jenson, 2018).

Research findings about teaching experience by Avramidis and Norwich (2002) and Leyser, Kapperman, and Keller (1994) have shown that teachers with the most experience express a more positive attitude towards inclusive education. The reason for this might be their more frequent contact (in both a professional or personal setting) with children with different needs. This could be why they are more supportive of an inclusive classroom and of children with disabilities.

Teachers find the class, or grade, they teach to be as important as the other previously mentioned factors. Research observations have revealed that it is much easier to work with secondary or high school SEN students, whereas to do so with primary school learners is more difficult. The reason for this is that children with SEN or disabilities lack the necessary social skills, thus causing problems for teachers. Hence, teachers are not willing to work with these students, and this develops their unfavorable attitudes (Gyimah et al., 2010).

2.4.2. Child-related variables. These variables play an important role in teachers' varying attitudes as well. The majority of mainstream school teachers prefer to teach students with mild or moderate disabilities rather than working with children with severe disabilities (Gyimah et al., 2010). In fact, teachers would rather accept students with more

moderate disabilities such as hearing, visual, learning, and physical impairments since students with these disabilities do not disturb the classroom, and it is easier for them to adapt to the learning environments as well as the teaching methods (Jenson, 2018). Avramidis and Norwich (2002) highlighted that generally, teachers would rather include children with physical and sensory impairments than those with emotional-behavioral difficulties in their classroom.

2.4.3. School-related factors. School-related factors relate to class size, school facilities, extra resources, and family support. The size of a class is a significant factor in shaping the attitudes of educators. In large classes, teachers refuse to accept students with SEN explaining this as being due to their inability to interact with each child and provide their holistic support to them all (Jenson, 2018). Hence, the smaller the class, the more effective the inclusive teaching and learning process becomes.

Adequate school supplies and supplementary resources are also paramount factors as they include the physical structure of the school (ramps, elevators, appropriate bathrooms) and the classroom materials necessary to support students with special needs. All these things affect teachers' attitudes because their absence complicates the task of implementing inclusive education (Jenson, 2018).

Teacher support services is another essential factor that accounts for a positive perception of inclusion by educators. This includes the presence of special education teachers, school psychologists, therapists, and teacher assistants. The provision of adequate support by these professionals helps to reduce teachers' level of fear, anxiety, and stress (Gyimah et al., 2010). If teachers lack support, this will inevitably lead to negative attitudes (Ewing, Monsen & Kielblock, 2018). According to Jenson (2018), support from family members and society is also significant in inclusion. With reference to this, teachers

working in inclusive classes require support from school administration with allowing them some autonomy in the classroom and communication with other related persons and students' families because the overall success of inclusion can only be achieved with the aggregate of internal and external support.

All things considered, it can be concluded that all factors can be interrelated. Nevertheless, in order to foster teachers' positive attitudes towards inclusive education in the frame of all the factors considered above, authorities and policy-makers should include in-service and pre-service training courses and workshops for teachers in their action plan. Additionally, they should engage those educators who have previous experience working with children with SEN and disabilities in inclusive schools; carefully consider and orchestrate all necessary and appropriate school policies to implement inclusive education; reduce the number of students in each class, if possible; provide comprehensive support to teachers and parents; and create all the necessary conditions for the effective implementation of inclusive education.

In their study, Ahmed et al. (2012) have noticed that although many scholars have researched the issue of teachers' attitudes in different countries, there are still some variables on which the research is quite limited. These are the perceived school support for inclusive teaching practices and teachers' previous successes in teaching children with a disability. Therefore, the current study considered these variables, along with those described earlier.

2.5. Global and Kazakhstani Studies on Attitudes

There is a great number of international studies on teachers' attitudes towards inclusive education. The topic is attracting the interest of researchers because teachers are recognized as key persons for implementing inclusive education. Boer, Pijl, and Minnaert

(2011) conducted a systematic literature review which included studies examining teachers' attitudes that were conducted in 26 countries. The results of this literature review demonstrated that the majority of general primary school teachers hold negative or neutral attitudes towards the inclusion of children with SEN. No studies reported significant positive results. Variables such as teacher training, experience working in an inclusive environment, and the type of disability have been found to relate to teachers' attitudes.

Another rigorous review of previous research that was conducted by Avramidis and Norwich (2002) revealed slightly different results. They reviewed the works that were published from 1980 to 2000. Their findings indicated that the teachers held positive attitudes, though there was no evidence of a complete rejection or a total acceptance of inclusion. According to the study, teachers' attitudes are greatly influenced by the nature of a child's disability (child-related variables) and the provision of physical and human support (environment-related variables). In contrast, teacher-related variables have the least impact on attitudes.

Administrators, like principals and lead teachers, have also had their perceptions explored in terms of their attitudes toward inclusion. It was stated in the review that staff members further removed from the learning process, like those working in offices and physically distant from everyday classroom routines, have higher levels of approval toward inclusive education initiatives when compared to those who work more closely with students. Further, when compared with regular education teachers, special education teachers approve more strongly of inclusive education programs and initiatives.

Leyser, Kapperman, and Keller's (1994) research was conducted across six nations, the USA, Germany, Israel, Ghana, Taiwan, and the Philippines, and discovered that teachers' attitudes do differ due to the cultural characteristics and national peculiarities of

their respective country. The limitation of educational opportunities for children with SEN can promote teachers' negative attitudes. This might be explained by the fact that teachers' naturally have negative predispositions if the authorities of the country are not able to provide them with the teacher training or inclusion-support services needed for their educational context. The study concluded that it is rather difficult to work with students with disabilities when no legislation on inclusive educational requirements exists within a country, or when a large number of students with SEN are educated in special segregated schools. Still, in this work, there also were some instances where these negative perceptions were mitigated.

Taking into consideration all the findings obtained from international studies (though only some of these have been described above), it can be concluded that the factors influencing teachers' attitudes are unique for each country. It would thus be unreasonable to draw firm generalizations about these variables as teachers' attitudes towards the inclusion of children with disabilities are formed due to the country's cultural and national peculiarities.

In Kazakhstan, the issue of inclusive education is beginning to acquire relevance, since inclusive education is one of the priorities of the state educational program of the country. In comparison with the global research studies, Kazakhstan lacks such research, particularly that of the attitudes of different stakeholders towards inclusion. One of the major studies on inclusive education in Kazakhstan is the Review of the OECD national education policy "Kazakhstan, Kyrgyz Republic and Tajikistan 2009: Students with Special Needs and Disabilities". It presents a policy analysis for children with SEN as well as factors that ensure the construction of an inclusive educational system (Unified Monitoring Framework for Inclusive Education in the Republic of Kazakhstan, 2017).

There are also other OECD research publications with their recommendations for the development of inclusive education in the country and implications for further national studies.

Among the national research in the field of inclusive education over the last decade, the most significant ones should be noted. They include “Family Problems: Causes and Prevention” conducted by the Committee for the Protection of Children’s Rights of the Ministry of Education along with the Research Center “Sandzh” in 2009, “Access to Quality Education for Children from Socially Vulnerable Groups: the Analysis of the Current Situation” done by “Sandzh” and the Fund Soros-Kazakhstan in 2011, “Realization of the Right to Higher Education for People with Disabilities in the Republic of Kazakhstan” by the Project of the Fund Soros-Kazakhstan in 2016. As one can witness, there are few studies on the topic of attitudes. One study by Aigerim Shaikheslyamova from Nazarbayev University titles “Faculty Attitudes toward Disability–inclusive Education at One National University in Kazakhstan” (2018) focuses on the problems of students who are underrepresented at universities. Her findings revealed that the general faculty attitude was positive towards students with various disabilities. However, when it came to the students with mental and intellectual disabilities in their class, they expressed contrasting views. Along with that, female faculty members turned out to be more welcoming than their male counterparts.

A similar theme of student-teachers’ attitudes towards inclusive education was investigated by two academics from Pavlodar, Aubakirova and Mukatayeva (2017). The purpose of their research was to define future teachers’ attitudes using the SACIE-R scale. In 2020, Aubakirova continued her research on the same topic, but this time with a group of other colleagues (Agavelyan, Aubakirova, Burdina, & Zhomartova, 2020) on the attitudes of practicing urban and rural teachers towards inclusive education. The results of

both studies revealed neutral attitudes towards inclusion. The second research (2020) underscored how the experience of interaction between teachers and people with SEN does not contribute to the formation of a positive attitude towards inclusion on the part of teachers.

2.6. Summary

As indicated earlier, the topic of teachers' acceptance of inclusive education is of interest to numerous scholars and investigators all over the globe because teachers are seen to be the main actors in the implementation of inclusive education. In different countries, different factors affect their attitude, which mainly depend on the country's peculiarities, and its cultural, political, and economic circumstances. In Kazakhstan, the issue of attitudes has not been thoroughly investigated yet, which forms a gap in the development of inclusive education.

Chapter 3: Methodology

3.1. Introduction and Research Design

A large number of scientists and researchers from different countries are interested in the problem of school teachers' attitudes towards inclusive education. The predominant question that was addressed in this study is to identify the attitudes Kazakhstani general education teachers hold towards inclusive education. The study focused on two research questions: teachers' attitudes towards the inclusion of students with special educational needs in mainstream schools in the northern part of Kazakhstan and teacher-related background variables associated with teachers' attitudes towards inclusion.

To address the research questions, this study employed mixed research methods. In more exact terms, we used an explanatory sequential mixed method that involves a two-phase project (Creswell, 2014). First, the researcher collected quantitative data and analyzed the results, and then used the results to build the second qualitative phase which was the interview.

The quantitative data was collected via an online survey with the use of the Sentiments, Attitudes, and Concerns about Inclusive Education Revised (SACIE-R) Scale (Forlin, Earle, Loreman, and Sharma, 2011). This type of online survey questionnaire is widely used for data collection, providing structured numerical data, and is often comparatively straightforward to analyze (Wilson & McLean, 1994). Since the scale is publicly available, permission from the authors is not required. The qualitative data was collected in the form of one-on-one semi-structured interviews that provided detailed and context-specific data. The one-on-one interview is a data collection process in which one respondent takes part in answering a researcher's questions; the researcher, in their turn, records the answers (Creswell, 2012).

The mixed methods research design was chosen as it provides a better understanding of the research problem and question than a mere quantitative or qualitative method. It enables the researcher to obtain more detailed, specific information than can be gained from the results of statistical tests (Creswell, 2012).

3.2. Data Collection Instruments

The quantitative data was collected through Qualtrics software, a tool for creating and analyzing web-based surveys for academic research, teaching, and administrative needs. The survey for this research consisted of an informed consent form and two sections. The consent form provided some brief information about the study and measures taken to ensure confidentiality. The first section of the survey contained questions to obtain the participants' demographic information such as their age, gender, level of education, and teaching experience. The second section was the SACIE-R scale developed by Forlin et al. in 2011 to measure pre-service teachers' beliefs about inclusion. It is comprised of three psychometric constructs: sentiments, attitudes, and concerns. In the frame of this scale, sentiments are understood as teachers' feelings when interacting with people with disabilities, attitudes purport the acceptance of students with different learning needs by their teachers, and concerns refer to teachers' concerns about inclusive education.

Even if the SACIE-R scale was originally designed for student-teachers, a number of academic studies (Montgomery, 2013; Yada, 2015) have successfully used it to measure the attitudes of practicing teachers. The authors of the scale (Forlin et al., 2011) also suggested that this scale is suitable for testing other groups of the population, such as in-service teachers. A similar study with in-service teachers was conducted in Pavlodar City, in Kazakhstan (Agavelyan et al., 2020).

There are 15 statements in the survey which is based on a four-point Likert-type rating scale ranging between “strongly disagree” and “strongly agree.” The Likert scale is one of the measurement methods that is used to estimate attitudes towards different objects or phenomena (Thomas, 2011). This instrument requires a forced-choice answer “strongly agree” or “agree” or “disagree” or “strongly disagree” without a neutral midpoint response (Forlin et al., 2011). Two sub-scales Sentiments and Concerns were reverse coded since their statements were formulated negatively (e.g., I am concerned that my workload will increase if I have students with disabilities in my class). To assess the internal consistency of the survey items, Cronbach’s alpha, a measure of reliability, was used. Its details are described in the Results chapter.

The survey is in English and has been translated into the two state languages, Kazakh and Russian, as among the participants, there have been teachers of subjects other than English. Both translations were double-checked by various Russian and Kazakh language teachers for their correctness and correspondence to the culture and local terminology.

The one-on-one semi-structured interview consisted of open-ended questions, which enabled participants to respond in their own words. According to Johnson and Christensen (2012), open-ended questions help a researcher obtain rich information and accurate data about the topic under study. They are part of the qualitative research method, the goal of which is “to understand participants’ inner worlds in their natural languages” (p.169). In this vein, the second phase of the study enriched the current work by providing five teachers’ perspectives on inclusive education.

3.3. Data Collection Procedure

Several procedures needed to be followed before the beginning of the data collection (Creswell, 2012). Prior to the study, ethics approval was received from the NUGSE Ethical Review Committee. Once done, access to the research site was obtained from the local City Educational Department and the school principals. After that, a meeting with the school principals was scheduled for the researcher to provide detailed information about the aims of the study and to get their assistance in the process of conducting the survey. The school principals and their assistants helped to share a link to the survey among the school teachers. The process of data collection via the survey took place in January 2020, and via the interview between February and March 2020.

3.4. Research Site and Participants

The research took place in the Akmola region in North Kazakhstan. Four local comprehensive schools participated in the study. Two of them have been implementing an inclusive system of education for two or three years, and the majority of their teachers took in-service courses on inclusive education. The other two schools are beginning to implement inclusive education, and there are from three to six teachers that were trained on inclusion. All of them are ordinary mainstream schools.

The target population of the present research was general education teachers of those four mainstream schools. Teachers of different subjects were involved in the survey: teaching languages, science, and additional subjects like physical training, art, and elective courses. There were 391 teachers in the schools; out of that number, 236 completed the survey. Of this number, two responses were deleted because of incompleteness. The response rate turned out to be 61%.

One teacher from each school was then invited to take part in an in-depth face-to-face semi-structured interview. A speech-language therapist from one school expressed the desire to participate in the research; consequently, overall, five teachers participated in the

second phase of the research. The questions for the interviews were composed based on the survey results.

3.5. Data Analysis Methods

The data collection phase was followed by the data analysis. In the present research, the purpose of data analysis was to critically analyze the responses of the teachers of four mainstream schools and measure their attitudes towards inclusive education. Data from the survey was analyzed using IBM Statistical Package for the Social Sciences (SPSS) software, version 26.

The two hypotheses of the study were tested through univariate and bivariate types of analyses. The variables of the current research fall under nominal (e.g., gender) and ordinal (allowing for the ordering of the values – strongly agree, agree, etc.) groups of non-parametric variables (Muijs, 2004). Descriptive statistics with a frequency distribution of variables were applied to find out how many females or males represent the attitudes of teachers towards inclusion across gender. Cross-tabulation and Chi-square of bivariate analysis were applied to calculate the p-value, i.e., to identify relationship between the variables (two nominal ones, and nominal and ordinal variables). For instance, the relationship between one of the items in the Attitudes sub-test “Students who have difficulty expressing their thoughts verbally should be in regular classes” was analyzed across gender. Spearman’s rho (two ordinal variables) was used to measure the strengths of the relationship between two ordinal variables. For example, if we take one of the statements about teachers’ concerns or sentiments: “I am concerned that I will be more stressed if I have students with disabilities in my class” and “I find it difficult to overcome my initial shock when meeting people with severe physical disabilities,” we identified a perfect positive/ negative or no correlation between the variables. One more statistic was

used - multivariate analysis – using multiple linear regression to look at the relationship between several predictors and one dependent variable (Muijs, 2004).

The quantified responses were coded from 1 to 4, representing the least positive to the most positive views of the scale statements. The items of the subscales of sentiments and concerns were reverse coded so that the opposite was true (i.e., 1=strongly agree and 4=strongly disagree). In this way, the mathematical mean of the 1-4 Likert scale is 2.5, reflecting a neutral viewpoint as the measure of teachers' attitudes towards inclusive education. Therefore, a mean score from 1 to 2 express a negative view, from 3 to 4 – a positive attitude to inclusion.

The qualitative responses were recorded during the interviews, and then transcribed onto a computer. All the interviewees were assigned pseudonyms (P1 to P5) to protect their privacy. The phases of data analysis were iterative by reading through the data, coding it, and returning for more information to fill in the gaps. This was followed by the creation of thematic categories which then were linked to develop a more general picture of the data (Creswell, 2014).

The quantitative and qualitative analysis helped to gain a better understanding of Kazakhstani teachers' beliefs and attitudes towards inclusion and children with SEN. The interpretation of the results is described and discussed in the following chapters.

3.6. Ethical Concerns and Risks of Research

Since the research plan was to conduct a quantitative study and collect primary data, it was necessary to ensure the confidentiality and anonymity of the research participants. The research Ethics Approval process consisted of several procedures. The first step was to obtain full ethical approval from the Nazarbayev University Research Ethics Committee of the School of Education. This approval was obtained before the

beginning of the research process. The next stage was to gain permission to conduct the study from the principals of two regular schools. Together with the supervisor of this research, we wrote a letter to inform the principal of the school about the purposes of the study and to ask for permission to gain access to the participants and the site. Then the survey questionnaire with a cover letter with information about the aims and approximate time needed for the data collection, and some brief information about inclusion was sent to the participants as respondents should be aware of how the results of a study they participate in would be used and to whom they would be reported (Creswell, 2012).

To address the ethical aspects of the research, the questions were planned to sound neutral and only focused on the research topic. The survey was conducted on a confidential basis without specifying the name of any respondents. The voluntary participation of respondents in the research was important. Moreover, they had the right to withdraw from the study at any stage if they wished to do so.

However, there was one potential risk while conducting the survey – the school teachers might have spent their working hours responding to the questions of the survey. To avoid this issue, it was recommended that teachers complete the survey in their free time.

3.7. Limitations

The first limitation of this research is the number of participants. Although four schools were involved, a certain number of teachers were not able to take part in it for various reasons or refused to answer the questions. In ideal circumstances, I would have liked to include the total population of secondary school teachers in the city but due to the limited time allotted for data collection that became impossible, which is the second limitation of the current research. These two limitations do not allow for the making of

generalizations about all Kazakhstani teachers' attitudes towards including students with disabilities or special needs in regular classroom settings.

3.8. Summary

This chapter gives information about the research methods and research procedures. The research was conducted in two phases: during the first one data was collected through the online survey from secondary school teachers, then five of the teachers who participated in the survey were invited to the interview, which was the second part of the study. Quantitative data analysis was performed in SPSS software. The results helped to formulate open-ended questions for the interviews. The researcher audiotaped the conversations and transcribed the information for the analysis. The qualitative data was coded producing broad themes and categories for data analysis. All the obtained results are presented in the following chapter.

Chapter 4: Results

4.1. Introduction

The chapter reports the data obtained from the research and presents its analysis. The study used mixed methods research. Data were collected through an online survey and the one-on-one semi-structured interviews to identify teachers' attitudes towards the inclusion of children with special educational needs (SEN) in mainstream schools in the northern part of Kazakhstan. The study has addressed the two research questions:

1. What are general education teachers' attitudes towards the inclusion of students with special educational needs in mainstream schools in the northern part of Kazakhstan?
2. What teacher-related background variables (e.g., age, gender, and educational qualifications) are associated with teachers' attitudes towards inclusion?

The survey link was sent to teachers of four mainstream schools. Overall, 236 teachers completed the survey out of 391 since the participation nature was voluntary. Of this number (236), two responses were deleted because of incompleteness. The response rate turned out to be 61%. Afterwards, four teachers were recruited to participate in the interviews.

4.2. Demographic Results

The sample consists of mostly females, with a ratio of 10 females to each male respondent. This may be explained by the fact that there are more women teachers than men. Moreover, females are more responsible for completing all sorts of surveys than males. More than half of the sample is over the age of 36 (Table 1).

The majority of educators indicated that they have a bachelor (lasts 4 years) or specialist degrees (lasts 5 years; gets deeper knowledge of the chosen profile), 49% and

42%, respectively. Almost one-third of the sample indicated more than 21 years of experience as a teacher. The remaining 70% has almost been evenly distributed between the years of experience (32, 35, 31, 33, and 32).

The most interesting finding was that 57% of general education teachers have never been trained in educating students with SEN and disabilities. However, in practice, the picture is different, where 43% of teachers have some experience teaching students with SEN, and 23% of them have extensive experience (30 days) of working with these children. According to the teachers' responses, the level of knowledge of local legislation and policies regarding children with disabilities is average. In this regard, the level of confidence in teaching students with SEN for most educators (64%) is also average, while for others, it is either high (15%) or low (15%). Only 6% of teachers have a very low confidence level.

Table 1: Personal and professional characteristics of the sample

Grouping variable		No.	Total
Gender	Male	21 (9%)	234
	Female	213 (91%)	
Age	25 years or below	39 (16%)	234
	26-35 years	58 (25%)	
	36-45 years	67 (29%)	
	46 years or above	70 (30%)	
Level of education	Bachelor's degree	115 (49%)	234
	Specialist degree	98 (42%)	
	Master's degree	17 (7%)	
	Secondary specialized	4 (2%)	
Years of teaching	0-2 years	32 (14%)	234
	3-5 years	35 (15%)	
	6-10 years	31 (13%)	
	11-15 years	33 (14%)	
	16-20 years	32 (14%)	
	21+ years	71 (30%)	
Level of training	None	134 (57%)	234
	Some	52 (22%)	
	High (at least 40 hrs)	48 (21%)	
Level of experience teaching a student with	Nil	79 (34%)	234
	Some	100 (43%)	

SEN	High (at least 30 full days)	55 (23%)	
Knowledge of the local legislation	None	16 (7%)	234
	Poor	30 (13%)	
	Average	140 (60%)	
	Good	46 (19%)	
	Very good	2 (1%)	
Level of confidence in teaching students with SEN	Very low	14 (6%)	234
	Low	36 (15%)	
	Average	148 (64%)	
	High	36 (15%)	
	Very high	0	

4.3. The results of the SACIE-R scale

Overall, 234 teachers completed the survey, and 4 of them participated in the interview.

In order to identify general education teachers' attitudes towards inclusive education, "The Sentiments, Attitudes, and Concerns about Inclusive Education Revised (SACIE-R) Scale" (Forlin et al., 2011) was applied. It consists of 15 statements or items in three constructs of inclusive education: sentiments, attitudes, and concerns. It is a four-point Likert scale without a neutral midpoint response (1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree). The reverse coding was applied for the Sentiments and Concerns scales to ensure that for all questions, the most positive response coincides with a positive attitude to inclusion. Cronbach's alpha (α) was employed to measure the reliability of the scale and the internal consistency of the survey items (Table 2). Taber (2018) pointed to the wide range of values indicated by descriptors (moderate, reasonable) in studies, which means that there is no clear consensus on the most appropriate labels to describe the values obtained when calculating alpha (α). Thus, in many studies, $\alpha \leq .5$ is considered an acceptable or sufficient value. The overall scale has a reliability of $r = .60$, which is a satisfactory value (Taber, 2018).

Table 2: Cronbach's alpha results for the SACIE-R factors

Scale factors	Cronbach's alpha	Interpretation
Sentiments	.57	Acceptable
Attitudes	.44	Sufficient
Concerns	.52	Acceptable
Overall	.60	Acceptable

4.3.1. Exploratory Factor Analysis (EFA)

A principal component analysis (PCA) with oblimin rotation was performed to preliminary explore the internal structure of the SACIE-R scale and identify underlying components using SPSS version 26. The Barlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) test of sampling adequacy were used to determine the appropriateness of the data for principal component analysis in the SACIE-R scale. The KMO value was .676, and Barlett's test was significant ($X^2 = 462.661$; $df = 105$; $p < .001$), suggesting that the data was appropriate for principal component analysis. The analysis yielded 5 components with an eigenvalue greater than 1.0, which accounted for 54.89% of the total variance.

Table 3 presents the factor loadings of the five-component solution, together with the eigenvalues and the variance explained by each component. Not all items loaded in the expected component. The items of the two subscales (Sentiments and Attitudes) were divided into two separate factors, thus creating five factors. This can be explained by a slight difference in the meanings of these items. The two items ("I dread the thought that I could eventually end up with a disability" and "I would feel terrible if I had a disability") ask respondents to consider their feelings by imagining themselves being disabled. The other three items describe sentiments towards interaction with individuals with disabilities. A similar situation was observed in the research by Savolainen (2012). The attitudes scale was also divided into two factors. The two of them refer to the attitudes towards students

with intellectual disabilities, and the remaining three items refer to students with physical disabilities.

Based on the item loadings, components were interpreted as sentiments towards people with disabilities (component 1), attitudes towards students with physical disabilities (component 2), attitudes towards students with intellectual disabilities (component 3), sentiments towards themselves if they (respondents) become disabled (component 4), and concerns (component 5).

Total scores were then computed for each of the 5 components. Mean scores, standard deviations, internal consistency coefficients, and intercorrelations among subscales are presented in Table 4. The correlations were found between sentiments and concerns ($r = .35$; $r = .30$), then between attitudes and concerns ($r = .14$).

Table 3: Pattern Matrix^a

	Component				
	1	2	3	4	5
I am afraid to look directly at a person with a disability.	.793				
I tend to make contacts with people with disabilities brief and I finish them as quickly as possible.	.698				
I find it difficult to overcome my initial shock when meeting people with severe physical disabilities.	.604				
I am concerned that I will be more stressed if I have students with disabilities in my class.	.464				
Students who require communicative technologies (e.g., Braille/sign language) should be in regular classes.		.738			
Students who have difficulty expressing their thoughts verbally should be in regular classes.		.657			
Students who need an individualized academic program should be in regular classes.		.472			
Students who frequently fail exams should be in regular classes.			.831		

Students who are inattentive should be in regular classes.					.734
I dread the thought that I could eventually end up with a disability.					.834
I am concerned that students with disabilities will not be accepted by the rest of the class.					.665
I would feel terrible if I had a disability.					.637
I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom.					.602
I am concerned that I do not have the knowledge and skills required to teach students with disabilities.					.578
I am concerned that my workload will increase if I have students with disabilities in my class.					-.520
Eigenvalue	2.83	1.66	1.44	1.21	1.07
Total variance explained (%)	18.89	11.11	9.65	8.10	7.12
Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization. a. Rotation converged in 25 iterations.					

Table 4: Mean scores, standard deviations, internal consistency coefficients, and component correlation matrix for the SACIE-R five-factor solution of the original SACIE-R Scale

	Items	M	SD	α	1	2	3	4	5
1. Sentiments towards people with disabilities	4	11.37	1.51	.63	-				
2. Attitudes towards students with physical disabilities	3	7.41	1.17	.44	.00	-			
3. Attitudes towards students with intellectual disabilities	2	5.19	0.98	.51	-.09	.11	-		
4. Sentiments towards themselves if they become	3	7.44	1.53	.56	.29**	.08	-.08	-	

disabled									
5. Concerns	3	7.16	1.20	.45	.35**	.14*	-.09	.30**	-

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

4.3.2. Descriptive Analysis

The participants’ responses are divided into three categories: sentiments, attitudes, and concerns. They are presented in the following tables 3, 4, and 5, respectively. The naked eye can see that generally, teachers’ attitude towards inclusive education is neutral, although some points need to be paid attention to.

Table 5 includes the results of participants’ responses about their sentiments in regard to students with SEN. The highest indexes (M=2.97, SD=0.56; M=2.90, SD=0.51; M=2.84, SD=0.51) are for the statements “I tend to make contacts with people with disabilities brief and I finish them as quickly as possible”, “I am afraid to look directly at a person with a disability”, and “I find it difficult to overcome my initial shock when meeting people with severe physical disabilities.” The majority of the participants (67.9%, 74.4%, and 73.5%) disagreed with these statements. It is very encouraging since it means that teachers are not afraid of dealing with students with a disability. Most of the respondents agreed with the two items concerning the individual himself “I dread the thought that I could eventually end up with a disability” and “I would feel terrible if I had a disability”, with 47% and 50.9% respectively, but almost half of them disagreed 36.8% and 42.3% with the idea. The mean of these items (M=2.42, SD=0.75, and M=2.41, SD=0.61) shows that teachers are somewhere in the middle, between disagree and agree, so some of them are still afraid of being disabled.

Table 5: Participants’ responses related to their sentiments toward inclusive education

	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Agree</i>	<i>Strongly agree</i>	
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No.	Items	Frequency		Frequency		Frequency		Frequency		M	SD
2	I dread the thought that I could eventually end up with a disability.	17	7.3%	86	36.8%	110	47%	21	9%	2.42	0.75
5	I tend to make contacts with people with disabilities brief and I finish them as quickly as possible.	34	14.5%	159	67.9%	41	17.5%	0	0%	2.97	0.56
9	I would feel terrible if I had a disability.	5	2.1%	99	42.3%	119	50.9%	11	4.7%	2.41	0.61
11	I am afraid to look directly at a person with a disability.	19	8.1%	174	74.4%	40	17.1%	1	0.4%	2.90	0.51
13	I find it difficult to overcome my initial shock when meeting people with severe physical disabilities.	14	6%	172	73.5%	46	19.7%	2	0.9%	2.84	0.51

Table 6 presents the results of respondents' answers about their attitudes towards children with disabilities. More than half of the participants agreed with items 3 (56%), 6 (59.4%), and 12 (54.7%). These items are about students who have difficulty expressing their thoughts verbally, who are inattentive, and frequently fail exams. Thus, teachers are more likely to want to see these students in their classes. Interestingly, the statement about students requiring communicative technologies did not reveal a positive attitude among the participants, since most of them, 61.5% ($M=2.31$, $SD=0.57$) disagreed with it. As for item 15, teachers might be confused about what to do with the students who need an individualized academic program, as almost half of them (47%), disagreed or strongly disagreed and more than half (52%) agreed or strongly agreed with the idea of including these children in mainstream schools.

Table 6: Participants' responses related to their attitudes toward inclusive education

	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Agree</i>	<i>Strongly agree</i>	
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No.	Items	Frequency		Frequency		Frequency		Frequency		M	SD
3	Students who have difficulty expressing their thoughts verbally should be in regular classes.	6	2.6%	91	38.9%	131	56%	6	2.6%	2.58	0.58
6	Students who are inattentive should be in regular classes.	6	2.6%	82	35%	139	59.4%	7	3%	2.62	0.58
8	Students who require communicative technologies (e.g. Braille/sign language) should be in regular classes.	10	4.3%	144	61.5%	77	32.9%	3	1.3%	2.31	0.57
12	Students who frequently fail exams should be in regular classes.	8	3.4%	92	39.3%	128	54.7%	6	2.6%	2.56	0.60
15	Students who need an individualized academic program should be in regular classes.	4	1.7%	108	46.2%	120	51.3%	2	0.9%	2.51	0.54

The following Table 7 reflects the results of educators' responses about their concerns toward including children with SEN in regular classes. More than half of the participants (58.5% and 52.1%) are concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom and that their workload will increase if they have students with disabilities in their class. Most of the teachers strongly disagreed (9.4%) and disagreed (45.7%) with item 1 (I am concerned that students with disabilities will not be accepted by the rest of the class). Similarly, a high percentage of respondents strongly disagreed (4.3%) and disagreed (59%) with the statement about being stressed if they have students with disabilities in their class. These results are already encouraging that our teachers are ready to work in inclusive classrooms. Almost two-thirds of the participants (62.4%) agreed and strongly agreed with the last statement (I am concerned

that I do not have the knowledge and skills required to teach students with disabilities). This result is not surprising since the majority of teachers need training, and that will be presented in the forthcoming sections of the chapter.

Table 7: Participants' responses related to their concerns toward inclusive education

No.	Items	<i>Strongly disagree</i>		<i>Disagree</i>		<i>Agree</i>		<i>Strongly agree</i>		M	SD
		Frequency		Frequency		Frequency		Frequency			
1	I am concerned that students with disabilities will not be accepted by the rest of the class.	22	9.4%	107	45.7%	96	41%	9	3.8%	2.60	0.71
4	I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom.	6	2.6%	79	33.8%	137	58.5%	12	5.1%	2.33	0.61
7	I am concerned that my workload will increase if I have students with disabilities in my class.	8	3.4%	99	42.3%	122	52.1%	5	2.1%	2.47	0.60
10	I am concerned that I will be more stressed if I have students with disabilities in my class.	10	4.3%	138	59%	82	35%	4	1.7%	2.66	0.58
14	I am concerned that I do not have the knowledge and skills required to teach students with disabilities.	3	1.3%	85	36.3%	138	59%	8	3.4%	2.35	0.57

Overall, general education teachers' attitudes towards inclusive education in the northern part of Kazakhstan are neutral ($M=2.57$, $SD=0.23$), being slightly above the neutral midpoint of 2.5 on a scale from 1 to 4. It means that teachers do not express a strong desire or reluctance to work with children with SEN. They have the most positive attitudes towards the interaction with students with disabilities ($M=2.71$, $SD=0.36$)

compared to their concerns and attitudes. Teachers' attitudes towards the inclusion of students with SEN in mainstream schools and their fears about working in an inclusive classroom are close to the neutral position, with $M=2.52$ ($SD=0.32$) and $M=2.48$ ($SD=0.36$) respectively.

Table 8: Means and standard deviations for scores of the SACIE-R scale and its subscales

	Mean	Standard deviation
The Sentiments Subscale	2.71	0.36
The Attitudes Subscale	2.52	0.32
The Concerns Subscale	2.48	0.36
Total SACIE-R	2.57	0.23

4.3.3. Bivariate Analysis: Spearman's Rho

In order to answer the second research question, the bivariate relationships between the predictor variables and the SACIE-R subscales were explored using Spearman's correlation (Table 9). There was a significant negative correlation between teachers' age and the Sentiments subscale ($r = -.145$, $p < 0.05$). There was no relationship between gender, level of education, total teaching experience, level of training, and 3 SACIE-R subscales. Though there was a perfect positive correlation between teachers' experience working with students with disabilities ($r = .195$, $p < 0.05$), level of confidence ($r = .281$, $p < 0.01$), and the Concerns subscale. A significant positive correlation was also observed between the knowledge of local policy and teachers' attitudes ($r = .155$, $p < 0.05$) and concerns ($r = .256$, $p < 0.01$). However, the interrelation degree between teacher-related factors and teachers' perception of inclusion was unknown. For this purpose, a multiple regression analysis was conducted.

4.3.4. Multiple Regression Analysis

The multiple regression (MR) analysis was carried out using the Enter method to

Table 9: Spearman's correlation between predictor variables and SACIE-R subscales

	Variable	1	2	3	4	5	6	7	8	9	10	11
1	Age	1.000										
2	Gender	.100	1.000									
3	Education	.341**	.058	1.000								
4	Teaching experience	.824**	.124	.263**	1.000							
5	Training	-.034	-.007	.031	-.091	1.000						
6	Experience with students with SEN	-.002	.018	.054	-.026	.545**	1.000					
7	Knowledge of legislation	-.011	.007	.022	.001	.403**	.453**	1.000				
8	Level of confidence	.080	-.014	.060	.125	.313**	.488**	.597**	1.000			
9	Sentiments	-.145*	-.103	-.034	-.084	.017	.060	.112	.128	1.000		
10	Attitudes	.079	-.035	-.044	.072	.083	.013	.155*	.116	-.004	1.000	
11	Concerns	-.118	-.007	-.084	-.042	.051	.195**	.256**	.281**	.481**	.021	1.000

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

investigate which independent variables are associated with each subscale and overall scale. The results are summarized in Table 10.

The analysis revealed that there are no significant predictors of attitudes subscale. There is also no common predictor observed in all three models. However, age has a statistically significant correlation with the sentiments, $F(1.23)=5.01$; $p<.05$, and the level of confidence is statistically significant in teachers' concerns, $F(1.23)=18.5$; $p<.001$. Three independent variables are significant predictors of the whole SACIE-R scale, $F(3.23)=15.7$. They are teachers' level of experience working with students with SEN ($p<.05$), their knowledge of local policies ($p<.001$), and the confidence in teaching children with SEN ($p<.001$). The Adjusted R square values indicate that predictor variables accounted for 13%, 11%, and 17% of the variance in Sentiments, Concerns, and total SACIE-R scale, respectively.

Table 10: The results of Multiple Regression Analysis

Variable	df	F	Adjusted R ²	Predictors	β	Significance
Sentiments	1	5.01	.13	Age	-.145	.026
Attitudes	-	-	-	-	-	-
Concerns	1	18.5	.11	Level of confidence	.272	.000
SACIE-R	3	15.7	.17	Level of experience teaching a student with SEN	.131	.045
				Knowledge of the local legislation and policy	.230	.000
				Level of confidence	.252	.000

4.3.5. Descriptive Analysis: Cross-tabulation

After the identification of statistically significant predictor variables, a series of cross-tabulations were performed. The results are summarized in Table 11. It should be noted here that EFA divided Sentiments sub-scale into two parts: sentiments towards students with SEN and sentiments towards themselves if being disabled. Cross-tabulation vividly shows the difference in teachers' responses. The majority of educators disagreed with the statements that refer to sentiments towards students with SEN, whereas the opposite picture was formed with the two remaining statements referring to sentiments towards themselves. More mature teachers disagreed or strongly disagreed with the three statements about feelings towards students with disabilities. For instance, 47.8% of all respondents are teachers over the age of 36 who either disagreed or strongly disagreed with the statement "I am afraid to look directly at a person with a disability." With statements "I would feel terrible if I had a disability" and "I dread the thought that I could eventually end up with a disability", the adult generation of teachers (older than 46 years old) also showed themselves more active, giving a positive response, 18% for both items.

Table 11: The results of descriptive analysis: cross-tabulation

	25 years or below	26-35 years	36-45 years	46 years or above	Total	The most common response
1. I would feel terrible if I had a disability	8.1%	14.9%	14.5%	18%	55.6%	Agree or strongly agree
2. I dread the thought that I could eventually end up with a disability	9.8%	13.2%	14.9%	18%	56%	Agree or strongly agree
3. I am afraid to look directly at a person with a disability	14.1%	20.5%	24.8%	23%	82.5%	Disagree or strongly disagree
4. I tend to make contacts with people with disabilities brief and I finish them as quickly as possible	14.5%	22.7%	22.6%	22.6%	82.4%	Disagree or strongly disagree
5. I find it difficult to overcome my initial shock when meeting people with severe physical disabilities	14.1%	21.8%	22.3%	21.4%	79.5%	Disagree or strongly disagree

4.4. The results of the interview

Once the preliminary analysis of quantitative data has been finished, one teacher from each school was recruited to take part in a one-on-one semi-structured interview. Overall, five interviews were conducted in the period of the end of February and March 2020. All qualitative data were coded. Table 12 presents some background information about the participants. It should be noted that all of them are female teachers. Participants 3 and 4 are teachers working in one school, where Participant 4 is a special education teacher who expressed a desire to take part in the interview together with her colleague as they work at one school. Participant 5 is a young teacher who did not take any training and has never worked with children with SEN. Her general work experience is only for 2 years. As it is seen, four teachers have close interaction with students with SEN. They work in special classes where the majority of children have intellectual disabilities (mental retardation). “There are more children with autism spectrum disorder”, says P3, which refers to a developmental disorder. The teachers subjectively measure their students’ academic success. For some of them, success consists of small daily victories, such as building a simple sentence and expressing their thoughts, while instilling them with basic cultural skills. For others, the measure of success is the placement of a student with SEN in a general education class based on the results of the decision of the PMPC.

Table 12: Interview participants’ background information

	Participant 1 (P1)	Participant 2 (P2)	Participant 3 (P3)	Participant 4 (P4)	Participant 5 (P5)
Age	53 years	40 years	53 years	51 years	24
Teaching experience	34 years	18 years	34 years	17 years	2 years
Subject	Primary school teacher	Kazakh and Kazakh literature	Primary school teacher	Speech therapist/ logopedist	Mathematics
In-service training in inclusive education	Yes	No	Yes	Yes	No
Experience	Yes	Yes	Yes	Yes	No

working with children with SEN					
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Challenges. While working with students with SEN, almost all teachers mentioned the complexity in the organization of the educational process, except for one, P2. This teacher indicated having no problems at work. She explained that for each student, subject teachers conduct their classes according to a special program. Therefore no difficulties are observed. Talking about challenges, educators relate to the nature of children's disabilities. Based on this, everyone needs their own approach. P1 shares her experience:

“Children of this category (intellectual disability) are characterized by short-term memory, forgetfulness, rapid fatigue, difficulty in switching attention, short temper, intemperance, and sometimes aggression. There is a child with attention deficit hyperactivity disorder (ADHD), who attracts the attention of the entire class to himself at any cost.”

Along with that, P3 claims that at the initial stage of education, children with different diagnoses differ both in their studies and in their behavior in the classroom. In the course of study, differences are smoothed out: children begin to communicate, respond more confidently in the class, and learn the learning material, each at their own level. She refers to “a huge work of teachers, speech therapists, defectologists, and psychologists.”

Another participant, P4, expects help from parents in case of difficulties.

“Parents do not always help, especially with homework. They believe that only educators should work with a child. There are, of course, parents who are very active in helping to overcome difficulties in the development of children, and these children have much better dynamics in their development.”

Concerns. Contrary to the results of quantitative analysis, during the interview, teachers did not mention any concerns about the inclusion of children with SEN in ordinary schools. P1 proposed to have an assistant or “tutor” if there is a child with a

disability. In general, they noted that they have no concerns. However, P5, who has never been trained and worked with individuals with disabilities, expressed some concerns:

“There is a fear in working with such children, as I do not have sufficient knowledge, work experience, and additionally, I am not psychologically ready.”

Attitudes. According to the law on the rights of the child, absolutely all children have the right to receive a quality education. P2:

“A student with disabilities has the right to study in a mainstream class. I support as a teacher.”

P1 also agrees with the opinion that students with SEN (with preserved intelligence, as she noticed) should study in a class with a general education program.

“It seems to me that the desire to learn from children with health problems can serve as a positive example for typically developing peers. Issues of humanism and tolerance also play an important role in children's relationships.”

While three teachers share the same opinion, one participant, P3, believes that it is not quite correct, taking into consideration the current situation with a large class size. Moreover, in a standard class, students with SEN are often left without appropriate attention.

“With all the desire of the teacher to create comfortable conditions for these children, it often does not work. In a special class for children with a disability in a mainstream school, this work can be organized effectively, but in a general education class, it is more difficult.”

P5 has a negative attitude towards the inclusion of children with disabilities in mainstream classes, explaining this as high demand for attention on the part of students with SEN.

To the question of what associations, thoughts, or feelings teachers have when they hear the phrase “inclusive education”, the respondents’ share the same opinion. They claim that children with disabilities need education in a friendly environment. Then they mention the possibility of obtaining education for different categories of children with SEN in a

secondary school at the place of residence. P1 associates the term of inclusive education as follows:

“The definition of inclusive education implies an individual approach to each student with special educational needs. When I see a child who requires special treatment, I immediately begin to understand that this child is included in the category “not like anyone else,” so I will have to study his psychological characteristics, the level of emotional and volitional sphere, temper, disposition, speech, general performance, communication skills, etc. The idea that he needs help, and I can help him comes to my mind.”

P3 simply replied that there are many conversations and publications on this topic. She even called it a “fashionable” theme. “In theory, it seems that everything is clear and understandable. In practice, it is very difficult – there are many intricacies.” The fifth participant associates inclusive education with a correctional class.

Thus, teachers’ attitudes towards students with SEN and their inclusion in regular classes differ. Some of them are positive, some are somewhere in the middle, and some of them are quite against this trend. The teachers’ attitudes are influenced by certain factors described earlier in the literature review chapter. Four teachers unanimously mentioned the severity of the disability and the nature of students’ needs, but a young teacher, P5, highlighted the “diagnosis of the disease.” Apart from this, P1 named a number of other factors that affect her attitude to inclusion.

“I believe that there should be children with the same diagnoses in the class. The number of children should not exceed 10 (our school allows 12). Other factors like the provision of methodological assistance, conduction of training seminars with tutorials, creation of technical equipment, correctional rooms, and the cost of the course of training play an important role.”

The teachers’ responses to the question “how students with SEN help or hinder the learning process for other students” distinguished. Three participants, P1, P2, and P4, believe that it is necessary to organize the teaching and learning process so that all categories of students can successfully learn. P1 and P2 claim that students with SEN

cannot interfere with their typically developing peers during the educational process because they are engaged on an equal basis with other peers, and the success and instilling interest in the subject depend on a teacher. Moreover, students in the class quickly build relationships.

However, P3 and P5 think otherwise. From the lesson observations, the young teacher claims that students with SEN mainly distract other students from the educational process, because the teacher pays more attention to such children. P3 argues that:

“Children with behavioral disorders can very much interfere with the normal educational process; I know this from my own experience and the experience of the class in which my son studied.”

Generally, teachers support the idea of the implementation of inclusive education in Kazakhstan for the children’s future. Concurrently, they made a point that Kazakhstan does not have such a long experience in this direction. This is why teachers have a lot of questions that they cannot always find answers to. “Inclusive education is being actively implemented. Much attention is paid to it. It can be successful under certain conditions,” “At this stage, inclusive education in Kazakhstan requires constant improvement of quality, changes in the attitude of teachers and society towards individuals with disabilities,” “I think this education should be introduced gradually, so that our modern society is ready for this psychologically and morally.”

Teachers’ Competence and Confidence. In accordance with the results of interviews, teachers with experience working with children who have SEN indicated that they feel quite competent and confident. “I think so. I have been working with them for nine years now. There are some successes,” “Yes, since I have special education. I try to help my fellow teachers,” “I feel quite competent in working with children of this category, as they are ordinary children, only requiring much more attention and individual approach. Each of them is waiting for a warm word, smile, and approval. They are even kinder and

more affectionate than children from general education classes. They always pay attention when someone is absent in class or someone is in a bad mood.”

The fifth participant frankly admitted that she does not feel competent and confident, as she does not have the proper skills in this area.

Support and Resources. Each school provides methodological support by conducting seminars, courses, training; teachers attend each other’s demonstrative lessons. P1 shared that their “school has a psychological and pedagogical support service, a psychologist’s office, a psychological relief office, a parent counseling center, and a reconciliation school. Methodical correction literature is issued.” P3 highlighted resources in terms of visibility – “students with SEN often need to rely on visibility.” Talking about this issue, the fourth interviewee (speech therapist) said: “On the part of teachers, it is necessary to treat children with SEN and their parents in a humane way. On the part of parents, their help in the development of children is necessary.”

At the end of the interviews, the educators were asked whether they had additional comments. The second interviewee pointed out that all children have equal rights, “therefore, the child must learn, despite the limited opportunities.” One more teacher, P4, wished the development of special training programs across specific categories of SEN. The fifth participant formulated a wish for more information about inclusive education, as well as visual aids and video lessons.

4.5. Summary

Chapter four reports the results obtained through the online survey and face-to-face semi-structured interviews. The final results on the teachers’ attitudes towards inclusive education and students with SEN are controversial. According to the survey results, teachers’ attitudes are neutral towards inclusion, while according to the interviews, teachers are more inclined to teach students with disabilities and SEN. Along with their

positive attitudes, teachers highlighted the challenges they encounter and concerns they have in relation to the education of children with SEN. The participants also indicated a number of factors that influence teachers' overall attitude towards the inclusion of students with disabilities and SEN in secondary schools. The discussion of these findings is presented in the next chapter.

Chapter 5: Discussion

The present research aimed to explore Kazakhstani general education teachers' attitudes towards inclusive education and discover which factors related to teachers' background affect their attitudes. Overall, 234 general education teachers took part in the survey, and five of them were then interviewed. The analysis of the survey detected the teachers' neutral attitudes towards the inclusion of children with SEN in mainstream schools. At the same time, the results of the interviews demonstrated teachers' positive attitudes putting forward certain conditions.

From these findings, one can notice that teachers in mainstream schools work with diverse students irrespective of the fact they have been trained or not. State schools cannot immediately send all teachers for in-service training, they do it in portions. When allocating teaching hours, they take into consideration teachers' qualifications as much as possible; however, there is a shortage of trained personnel.

This might influence the overall teachers' perception of inclusion. Montgomery (2013) holds the view that the more hours teachers are trained, the more confident they become, thus holding more positive attitudes towards children with disabilities.

Another important finding was that there are a lot of teachers of pre-retirement age in schools, perhaps because young specialists refuse to work in their specialty, but this is a completely different topic of a low teacher retention rate.

5.1. Kazakhstani Teachers' Attitudes towards Inclusion

The quantitative part of the research revealed that general education teachers hold a neutral disposition towards inclusive education. Along with that, their interactions with students who have SEN positively influence their attitudes. The longer their experience working with such students, the more positive they become towards them. Additionally,

the knowledge of policy and level of confidence influence their concerns. It means that if teachers have a very good knowledge of local (maybe international as well) policies and legislation, they would be more confident, and thus their concerns will go down.

The previous research (Avramidis & Norwich, 2002) indicates that teachers' neutral attitudes at the beginning of inclusive education implementation may change over time and become more positive. It is worth noting that the schools under study are at the beginning of this path – 2 or 3 years. Moreover, Avramidis and Norwich (2002) asserted that teachers who had been implementing inclusive programmes for some years held more positive attitudes than those who had no such experience. This is justified by the results of qualitative analysis where four participants have had experience working with children with disabilities, and one teacher was inexperienced. Experienced teachers had a positive attitude to inclusive education in one way or another, in contrast to a teacher who had no experience working with children with SEN. She explained her negative attitude by much more time and attention that had to be paid to children with disabilities. De Boer et al.'s (2011) findings echoed this finding that teachers with experience in inclusive education demonstrated significantly more positive attitudes towards children with SEN than those with less or no experience in inclusive education (p. 348).

The qualitative part of the study was conducted to identify teachers' attitudes through their perception of inclusive classrooms and children with SEN. In fact, general education teachers have the right understanding of the notion of inclusive education. However, their perception of children with SEN from a medical point of view can be traced. This tendency can be explained by the fact that the work in the Republic of Kazakhstan has been established for a long time, which passes through the Psychological-Medical-Pedagogical Consultations (PMPC) and such words as “diagnosis,” “health problems,” “correctional classes,” pronounced by the interviewees, only prove this. Human

Rights Watch (2019) reports Kazakhstan's slow progress towards inclusive education, and one of the main barriers to the successful implementation of inclusive education is PMPC commissions. Agavelyan et al. (2020) also mentioned a slow development of inclusive education in Kazakhstan due to the lack of teachers' training and changes in teacher education. In view of all these, general education teachers do not feel confident teaching children with SEN.

Considering the findings of this research from the three components of attitudes (Boer, Pijl, & Minnaert, 2011), the following picture was revealed. The results suggested that secondary school teachers hold neutral attitudes towards inclusive education in terms of their knowledge and training, which refers to the cognitive component of attitudes. Teachers' sentiments or feelings are neutral as well referring to the affective component of attitudes. However, teachers expressed their intentions (the behavioral component of attitudes) to teach students with disabilities and SEN, which signified that they tend to implement inclusion into practice, thus demonstrating their positive attitudes. Moreover, a critical review of Ewing et al. (2018) proved that the SACIE-R scale addresses all the three attitudinal components: interactions with students with SEN pertain to behavioral aspect; teachers' concerns have relation to affective component, and their knowledge and skills are about cognitive aspect of attitudes.

5.2. Factors Affecting Teachers' Attitudes

Spearman's correlation between predictor variables and SACIE-R subscales did not reveal any correlations between training and teachers' attitudes. However, according to this analysis, training positively influences teachers' experience working with students with SEN, their knowledge of policies, and level of confidence (.545, .403, .313). Then, these three factors affect the attitudes of teachers. Thus, training is one of the most important factors in fostering positive attitudes towards inclusion. Combining quantitative results

with qualitative ones, one can witness the teachers' need in training along with direct experience working with children with disabilities. Such teachers have more positive attitudes toward inclusive education. These views are supported by Leatherman and Niemeyer (2005), who concluded that specific strategies for working with children with disabilities and fieldwork in inclusive programs influence pre-service teachers' attitudes towards inclusion (p.33). Similar conclusions can be drawn in relation to practicing teachers.

According to multiple regression analysis, teachers' age was found to be statistically significant in relation to their sentiments. Cross-tabulation revealed that older teachers are not afraid of interacting with students with SEN, thus showing their positive attitudes towards inclusive education. When it came to feelings about themselves, imagining themselves in place of people with disabilities, teachers span a negative attitude towards inclusion. Jenson (2018) claimed that age contributed to teachers' attitudes towards inclusion of students with SEN. He explained that older teachers (especially over 55) had more experience teaching students with different educational needs and thus being more competent in an educational setting.

As for the SACIE-R scale, indicating teachers' overall attitudes, multiple regression identified the following variables to be statistically significant: teachers' previous experience teaching students with SEN, their level of knowledge of local policies, and the level of confidence in working with children with disabilities. Ahmed et al. (2012) confirmed that teachers' who had experience working with students with disabilities (he called this process as "contact") held more positive attitudes towards inclusion than those teachers who did not have this experience. This finding is consistent with the research conducted earlier by Jantan (2007), which suggested that regular contact with children with SEN favorably impacted teachers' attitudes towards these students. In that way, teachers become more sensitive, hence more supporting the philosophy of inclusive education.

Other research works (Leyser, Kapperman, and Keller, 1994; Boer, Pijl & Minnaert, 2011) also reported that teachers with previous experience working with disabled students had more favorable attitudes towards inclusion in comparison with those educators having less or no experience. In contrast to these studies, Avramidis and Norwich (2002) found that those teachers who had previous work experience with children with SEN were stressed out. Therefore such kind of experience promoted unfavorable acceptance for inclusion. This difference of opinion was also observed in the conducted interviews. Three out of five teachers were positive about including children with SEN in general education classes. One teacher having had experience teaching students with SEN expressed insufficient agreement with the statement about the inclusion of students with SEN in mainstream. As a reason, she mentioned the large class size, in which students with SEN are often left without proper attention from the teacher. The fifth teacher without any experience had a negative attitude towards inclusion, also referring to the lack of teacher's attention. Thus, the majority of the literature claims that teacher's experience working with students with SEN is one of the main predictors of educators' positive acceptance of inclusive education.

The findings of the present study also showed the correlation between teachers' level of confidence and their overall attitudes towards inclusive education demonstrated by Spearman's rho and multiple regression analyses (MR: $p < 0.001$). Teachers' confidence or self-efficacy is on an average level with 63.2% of total responses. The reviewed literature supports the belief that teachers' confidence is connected to attitudes (Savolainen, 2012, p.65). The more confident educator, the more positive they are. When teachers believe they can implement inclusive education strategies into practice, their attitudes towards the inclusion of children with SEN in mainstream schools by default become more positive.

With a neutral perception of inclusive education, general education teachers recognize the need for knowledge of local policies and legislation related to people with disabilities. The survey revealed just over half of the respondents (60%) have an average

level of knowledge of state legislation on people with special needs. It is noteworthy that only two persons know the local laws at a very good level. One can assume that any knowledge entails confidence, and therefore a positive attitude. In research about faculty's attitudes towards university students with disabilities, all the participants agreed that it was crucially important to be aware of the legislation (Shaikheslyamova, 2018). However, along with that, university teachers were reluctant to attend special courses of inclusive education. This can be accounted for teachers being overloaded at work. Because of it they simply do not have enough time acquiring knowledge, which will possibly never be useful to them if they do not teach students with SEN.

5.3. Summary

The chapter has discussed the main findings obtained during the research. It was investigated that general education teachers in the Northern region of Kazakhstan are neutral about inclusion. This is due to the fact that inclusive practices in the schools under consideration are being introduced relatively recently and not all the staff of these schools have been trained. On the other hand, qualitative data showed positive results of teachers' attitudes which is due to their close interaction with students with disabilities. Some major findings suggested that regular school teachers would have positive views on inclusive education if the whole population of mainstream schools receives the specialized training in the area of inclusive education, if teachers have extensive experience working with children with disabilities, and if their level of knowledge of local policies increases. As Avramidis and Norwich (2002) argued, since the introduction of inclusive practices in schools, it should take a certain amount of time for teachers to develop a positive attitude towards inclusion. Furthermore, in contrast to gender, age was identified as a factor affecting teachers' perceptions of inclusion. The older the age of the teacher, the more favorable they are to students with SEN or disabilities. The last but not least is teachers'

confidence, depending on their sound knowledge of inclusive strategies as well as local policies. Thus, the more confident the teacher is, the more positive they are.

Chapter 6: Conclusion

The purpose of the current research was to explore Kazakhstani general education teachers' attitudes towards inclusion of students with SEN in mainstream schools. The two research questions were set for this work, and they were responded through the conduction of a series of quantitative analyses and interview data.

1. What are general education teachers' attitudes towards inclusion of students with special educational needs in mainstream secondary schools in the northern part of Kazakhstan?
2. What teacher-related background variables (e.g., age, gender, and educational qualifications) are associated with teachers' attitudes towards inclusion?

6.1. The Summary of Findings and Discussion Chapters

Although inclusive education has been developing in Kazakhstan for a relatively long time, the pace of development is quite slow. This might affect the attitude of teachers to inclusion and children with SEN. In this regard, the quantitative data analyses have demonstrated that secondary school teachers have a neutral attitude to inclusive education. The results of the qualitative analysis revealed teachers' positive attitudes towards inclusion, but these educators currently teach children with SEN and have previous experience working with them. These results indicate that social contact *per se* with students with SEN encourages teachers to have a positive attitude towards children with disabilities, and therefore to inclusive education. As Leatherman and Niemeyer (2005) proposed in their research, for in-service and pre-service teachers who are in training to provide with the practice for working with children with SEN along the way. This work will positively influence students' and teachers' attitudes towards inclusion.

The present research discovered that the following teacher-related variables are significant in the formation of Kazakhstani general education teachers' attitudes. They are teachers' age, experience with students with SEN, knowledge of local policies, and the

level of their confidence. Despite the fact that local schools have a large number of teachers aged 36 and over, there is nothing anyone can do about it. It only remains for education authorities to attract young professionals to teach. In pedagogical universities, it is necessary to introduce a course of inclusive education with the possibility of practical training in schools that implement inclusive education.

During the one-on-one interviews, and then the process of qualitative data analysis, the most of the teachers interviewed were inclined towards medical model of disability. Local educators often apply medical terminology which might be explained by the way inclusive education is being implemented in the country. The existence of special schools, PMPC, correctional classes inside inclusive schools, all these affect the overall perception and understanding of inclusion by teachers. More precisely, local teachers comprehend correctly what inclusive education is, they do not quite correctly perceive children with SEN. It might be appropriate for further studies to focus on content analysis of current pre- and in-service teacher training programs. In the frame of training programs, local legislation and policies about people with disabilities should be included, since the level of teachers' knowledge leaves room for improvement (being at an average level).

The research did not find gender, educational qualifications, and general teaching experience to be associated with teachers' attitudes towards inclusive education.

All things considered, it is worth noting that factors influencing teachers' attitudes are distinctive for one country, or even for one region within the country, since in Pavlodar gender had an impact on teachers' attitudes. Still, in the northern part of Kazakhstan, there was no correlation between teachers' gender and their attitudes towards inclusion.

6.2. Implications and Recommendations for Further Research

The main implication of the research is to provide the whole teacher population with comprehensive training on inclusion which incorporates teaching practices with

students with SEN and disabilities. Training specialists in the field of inclusive education is the fundamental condition for the successful implementation of inclusive education.

Although there are myriads of studies on teachers' attitudes towards inclusion, some other factors still need to be thoroughly investigated. For instance, future research might focus on the content of training programs on inclusive education for mainstream teachers with the use of observations and field notes, or other qualitative research methods. In addition, the study can be conducted in several regions of the country, so that the data obtained can be then compared.

6.3. Limitations

The present research has a few limitations. The first limitation is the number of participants in both phases of the study. In the survey four general education schools were engaged with the total 234 teachers. Theoretically, the inclusion of the total population of secondary school teachers in the city would have been ideal; however it was not possible due to the time constraints. During the second phase, only 5 teachers were interviewed. Four of them have had experience of teaching students with SEN while one had no experience. Despite this, the data provided sound information on attitudes of teachers towards pupils with SEN and inclusive education.

Another limitation is a lower coefficient of Cronbach's alpha. Instead of acceptable level of 0.7, the current research revealed 0.6 reliability coefficient, which is considered minimally acceptable (Taber, 2018). This indicator slightly limited getting full results. It might be that the reason of getting different results than other studies is that the sample of the present research is in some systematic manner different from samples used in other studies.

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Appendices

Appendix A

INFORMED CONSENT FORM (Survey)

Exploring Kazakhstani General Education Teachers' Attitudes towards Inclusive Education

DESCRIPTION: You are invited to participate in a research study entitled “Exploring Kazakhstani General Education Teachers’ Attitudes towards Inclusive Education”.

TIME INVOLVEMENT: This survey will take approximately 10-12 minutes to complete 25 questions (10 demographic questions and 15 statements of the SACIE-R scale). You will be asked questions about your sentiments, attitudes and concerns towards inclusive education. If you do not wish to answer any of the questions included in the survey, you may skip them and move on to the next question.

RISKS: The potential risk of participating in this study is that you may spend your working hours to respond the questions of the survey. To avoid this issue, you are recommended to complete the survey in your free time. Your name will not be included on the survey, so you will not be linked to any information you provide.

BENEFITS: The benefits which may reasonably be expected to result from this study are that policy makers, educators, and scholars investigating the same topic of teachers’ attitudes or similar to it can find the results and findings to be relevant and useful for future policies and studies.

PARTICIPANT’S RIGHTS: If you have read this form and have decided to participate in this project, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. The alternative is not to participate. You have the right to refuse to answer particular questions. The results of this research study may be presented at scientific or professional meetings or published in scientific journals.

CONTACT INFORMATION: It is understood that should any questions or comments arise regarding this project, or a research related injury is received, the Principal Investigator, [Name], at [email] should be contacted. Any other questions or concerns may be addressed to NUGSE Research Committee at gse_researchcommittee@nu.edu.kz

Statement of Consent

By clicking “I agree” below you are indicating that you are at least 18 years old, have read and understood this consent form and agree to participate in this research study:

I agree

I disagree

Appendix B**Survey Questions***Section 1*

1. The school you work at is Nr. ____
2. What is your age?
 - 25 years or below
 - 26-35 years
 - 36-45 years
 - 46 years or above
3. Indicate your gender
 - Male
 - Female
4. Your highest level of education completed is:
 - Bachelor Degree
 - Specialist Degree
 - Master Degree
 - Doctoral Degree (Doctor of Science or Ph.D)
 - Other, please specify _____
5. What is your total teaching experience?
 - 0-2 years
 - 3-5 years
 - 6-10 years
 - 11-15 years
 - 16-20 years
 - 21+ years
6. What grade level do you teach?
 - Primary school
 - Secondary school
 - High school
7. You have had the following level of training on educating students with disabilities:
 - None
 - Some
 - High (at least 40 hrs)
8. Your level of experience teaching a student with a disability is:
 - Nil
 - Some
 - High (at least 30 full days)
9. Your knowledge of the local legislation or policy as it pertains to children with disabilities is:
 - None
 - Poor
 - Average
 - Good

- Very Good
10. Your level of confidence in teaching students with disabilities is:
- Very Low
 - Low
 - Average
 - High
 - Very High

Section 2

The following statements pertain to inclusive education which involves students from a wide range of diverse backgrounds and abilities learning with their peers in regular schools that adapt and change the way they work in order to meet the needs of all.

Please circle the response which best applies to you.

SD	D	A	SA
Strongly disagree	Disagree	Agree	Strongly agree

Sentiments					
1	I am concerned that students with disabilities will not be accepted by the rest of the class.	SD	D	A	SA
2	I dread the thought that I could eventually end up with a disability.	SD	D	A	SA
3	Students who have difficulty expressing their thoughts verbally should be in regular classes.	SD	D	A	SA
4	I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom.	SD	D	A	SA
5	I tend to make contacts with people with disabilities brief and I finish them as quickly as possible.	SD	D	A	SA
Attitudes					
6	Students who are inattentive should be in regular classes.	SD	D	A	SA
7	I am concerned that my workload will increase if I have students with disabilities in my class.	SD	D	A	SA
8	Students who require communicative technologies (e.g. Braille/sign language) should be in regular classes.	SD	D	A	SA
9	I would feel terrible if I had a disability.	SD	D	A	SA
10	I am concerned that I will be more stressed if I have students with disabilities in my class.	SD	D	A	SA
Concerns					
11	I am afraid to look directly at a person with a disability.	SD	D	A	SA
12	Students who frequently fail exams should be in regular classes.	SD	D	A	SA
13	I find it difficult to overcome my initial shock when meeting people with severe physical disabilities.	SD	D	A	SA
14	I am concerned that I do not have the knowledge and skills required to teach students with disabilities.	SD	D	A	SA
15	Students who need an individualized academic program should be in regular classes.	SD	D	A	SA

Appendix C

CONSENT FORM (Interview)

Exploring Kazakhstani General Education Teachers' Attitudes towards Inclusive Education

DESCRIPTION: You are invited to participate in a research study entitled “Exploring Kazakhstani General Education Teachers’ Attitudes towards Inclusive Education”. As part of the study, you will be asked to participate in a semi-structured one-on-one interview. If it is possible the interviews will be audio recorded with your permission. The tapes will be used only for data analysis purposes. The recorded audio files will be destroyed after transcribing the data. If you do not wish to answer any of the questions during the interview, you may say so and the interviewer will move on to the next question. No one will use your name in reports, so your privacy will be protected. The results of the study will be used for scholarly purposes only.

TIME INVOLVEMENT: Your participation will take approximately 35-40 minutes.

RISKS AND BENEFITS: There are no risks to participants associated with the present study. Pseudonyms will be used to protect your identity. The benefits which may reasonably be expected to result from this study are that policy makers, educators, and scholars investigating the same topic of teachers’ attitudes or similar to it can find the results and findings to be relevant and useful for future policies and studies. Your decision whether or not to participate in this study will not affect you negatively in any ways.

PARTICIPANT’S RIGHTS: If you have read this form and have decided to participate in this project, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. The alternative is not to participate. You have the right to refuse to answer particular questions. The results of this research study may be presented at scientific or professional meetings or published in scientific journals.

CONTACT INFORMATION:

Questions: If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, contact the Master’s Thesis Supervisor for this student work, [Name], [telephone], [email].

Independent Contact: If you are not satisfied with how this study is being conducted, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact the NUGSE Research Committee to speak to someone independent of the research team. You can also write an email to the NUGSE Research Committee at gse_researchcommittee@nu.edu.kz

Please sign this consent form if you agree to participate in this study.

- I have carefully read the information provided;
- I have been given full information regarding the purpose and procedures of the study;

- I understand how the data collected will be used, and that any confidential information will be seen only by the researchers and will not be revealed to anyone else;
- I understand that I am free to withdraw from the study at any time without giving a reason;
- With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

Signature: _____

Date: _____

Appendix D

Interview Protocol

Time of interview:

Date:

Place:

Interviewer:

Interviewee:

Gender:

Duration:

-Description of the research

-Signing the consent form

-Testing a phone recorder

Questions:

Note:

SEN – special educational needs

1. How old are you?
2. What is your teaching experience?
3. What is your speciality / what subject do you teach?
4. Have you ever taken any professional development courses/trainings/sessions on inclusive education? If yes, which ones (the name of the course, number of hours).
5. When you hear the expression “Inclusive education” what associations, thoughts, or feelings do you have?

6. Do you have students with SEN/disabilities in your classroom?
 In case YES: **6 a)** What is his/her/their diagnosis?
 6 b) What challenges do/did you face while working with them?
 6 c) What are the academic achievements of this/these student(s)?
7. Do you agree with the following statement and why?
 “Students with SEN/disabilities should learn in mainstream schools.”
8. Do you have any concerns if students with SEN or disabilities learn in mainstream schools (stress, heavy workload, insufficient level of knowledge and skills, difficulties to give appropriate attention)?
9. Do you feel qualified to teach students with SEN? Explain why?
10. Do you feel confident planning lessons and teaching a child with SEN?
11. What factors do you think impact your attitude towards inclusive education (class size, support, resources, the severity of the disease, nature of need, etc.)?
12. Are there any resources that you feel would help to implement successful inclusive education?

- 13.** What support does the school provide to you in teaching children with SEN?
- 14.** How do students with SEN (would) help or hinder the education process for other students?
- 15.** What is your attitude towards the implementation of inclusive education in Kazakhstan and its success in the future?

Alternatively:

- 16.** Is there anything we haven't talked about that you would like to add or talk about regarding inclusion?