

Running head: A CASE STUDY OF TEACHERS' UNDERSTANDING AND  
PRACTICES WITH TWICE-EXCEPTIONALITY

A case study of teachers' understanding and practices with twice-exceptionality

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### **Abstract**

**Key words: inclusive Education, case Study, giftedness, twice-exceptional students**

The Inclusive education, recently introduced in Kazakhstani education system has a goal to be pioneered by 30 percent of mainstream schools by 2020. Due to this reason many teachers, practitioners and researchers are in the dilemma over how to teach students with additional needs such as twice-exceptional students. The purpose of this qualitative research is to investigate, from the perspectives of various subject teachers, the educational experience of twice-exceptional students with cerebral palsy who are currently studying in a school for gifted and talented.

This study was based on a case study method of qualitative research. The main participants of the study were twelve teachers with at least five years teaching in a school for gifted and talented who participated in semi-structured interviews, focus group discussion and were observed during their teaching to triangulate the research results. Reviewing relevant empirical research literature and conducting qualitative research, the teachers' awareness, beliefs and experience with gifted additional needs students such as twice-exceptional students and methods how twice-exceptional students are identified in the classroom were analyzed. Furthermore, the research explores the effects of labeling and non-labeling twice-exceptional students on the academic performance followed by examining the inclusive education techniques to accommodate twice-exceptional students. The results of the study revealed that twice exceptionality is a challenge in participating school. The case study research concluded that educational experience of twice-exceptional children is based on crucial factors such as teachers using a differentiated teaching

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approach as an inclusive strategy to accommodate the unique needs of gifted students with cerebral palsy.



### **Аннотация**

**Ключевые слова:** инклюзивное образование, кейс-стади, одаренность, дважды особенные ученики

Инклюзивное образование, недавно введенное в казахстанскую систему образования, планируется быть введенным в 30 процентах общеобразовательных школ к 2020 году. По этой причине многие учителя, практики и исследователи задаются вопросом о том, как учить учащихся с дополнительными потребностями, таких как дважды исключительных учащихся. Целью данного качественного исследования является изучение, с позиций различных учителей-предметников, образовательного опыта дважды исключительных учащихся с церебральным параличом, которые в настоящее время обучаются в школе для одаренных и талантливых детей.

Данное исследование базировалось на методе кейс-стади для качественных исследований. Основными участниками исследования стали двенадцать педагогов с не менее чем пятилетним стажем обучения в школе для одаренных и талантливых детей, которые участвовали в полуструктурированном интервью, фокус-групповом обсуждении и наблюдались во время их преподавания для триангуляции результатов исследования. Были проанализированы обзор соответствующей эмпирической исследовательской литературы и проведение качественных исследований, осведомленность учителей, убеждения и опыт работы с одаренными студентами с дополнительными потребностями, такими как дважды исключительные студенты и методы, как дважды исключительные студенты идентифицируются в классе. Кроме того, исследование изучает влияние маркировки и не маркировки успеваемости дважды исключительных студентов с последующим изучением методов

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инклюзивного образования для удовлетворения нужд дважды исключительных студентов. Результаты исследования показали, что дважды исключительность является проблемой в посещении школы. В исследовании case study сделан вывод о том, что образовательный опыт дважды исключительных детей основан на таких решающих факторах, как учителя, использующие дифференцированный подход к обучению в качестве инклюзивной стратегии для удовлетворения уникальных потребностей одаренных учащихся с церебральным параличом.

### Аннотация

**Түйінді сөздер:** Инклюзивті білім беру, Case study, дарындылық, екі рет ерекше студенттер

Жақында қазақстандық білім беру жүйесіне енгізілген инклюзивтік білім 2020 жылға қарай жалпы білім беретін мектептердің 30 пайызына алғашқы болып енгізуді көздейді. Осы себепті көптеген мұғалімдер, практиктер мен зерттеушілер екі есе қажеттіліктері бар оқушыларды оқыту дилеммасын кезіктіреді. Бұл сапалы зерттеудің мақсаты - дарынды және талантты балаларға арналған мектепте оқып жүрген церебральды сал ауруымен ауыратын екі есе ерекше қажеттілігі бар оқушылардың білім беру тәжірибесін әр пән мұғалімдерінің көзқарасынан зерттеу. Зерттеудің тиісті эмпирикалық әдебиеттерін талдай келе және сапалы зерттеулер жүргізу арқылы, бұл зерттеу мұғалімдердің наным-сенімдерін және білім беру барысында екі есе ерекше қажеттілігі бар дарынды оқушыларды анықтау әдістерін көрсетеді. Бұдан басқа, зерттеу екі есе ажеттілігі бар оқушышылардың айқындалуы оларды академиялық көрсеткіштеріне әсерін зерттей келе, оларды қалыпты сыныпқы қосудың әдістерін қарастырады. Бұл зерттеу сапалы зерттеудің кейсті зерттеу әдісіне негізделген. Зерттеудің негізгі қатысушылары он екі мұғалім болды, оның ішінде дарынды және талантты оқушыларға арналған мектепте кемінде бес жыл жұмыс жасаған мұғалімдер жартылай құрылымдық сұхбатқа қатысқан, фокус-топтық пікірталасқа қатысып және сабақ беру барысында бақыланған. Зерттеу нәтижелері дарынды және талантты оқушыларға арналған мектепте екі есе қажеттілігі бар оқушылардың оқытылуы мәселе болып табылатындығын анықтаған. Дарынды және талантты балаларға арналған мектеп шеңберінде өткізілген зерттеу, церебральды сал ауруымен ауыратын дарынды оқушының қажеттілігін

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қанағаттандыру үшін кешенді стратегия ретінде оқытудағы дифференциалық әдіс тәсілдерді қолдану мұғалімдер үшін маңызды фактор болып табылатынын анықтады.

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## **Chapter 1: Introduction**

This research investigates using a gifted curriculum with twice-exceptional students in a southern Kazakhstani school for gifted and talented from teachers' perspectives. The research highlights whether teachers focus more on twice-exceptional students' disability or their giftedness. The phenomenon of twice-exceptional students is highly significant to research for practitioners because it is related within inclusive education policy presented in Kazakhstan's 2020 Educational Reform (Monobayeva & Howard, 2015).

Many scholars have already started research on the effective strategies and methods of teaching twice-exceptional students, but little research has been conducted on the effect of teachers' assumptions and convictions about twice-exceptional students in Kazakhstan. There is a dearth of research on the use of a gifted curriculum with twice-exceptional students in this context.

Twice-exceptional students may own exceptional ability and disability, which are demonstrated in a unique set of circumstances. Their giftedness and disability may mask each other so that neither is recognized or addressed (Nicpon, Allmon, Siek & Steinsen, 2011).

Although parents welcome the idea that experts conclude twice-exceptional children should be included in the gifted program regardless of their learning difficulties, teachers consider teaching twice-exceptional students fairly challenging. Numerous teachers are afraid to decelerate their gifted instruction or avail it to their students with learning issues. However, accommodations and modifications can remove learning barriers of such students (Schumaker & Lenz, 1999).

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### **Background of the study**

The topic of twice-exceptionality can be discussed from two angles. In Kazakhstan, students are either identified as gifted or with disabilities because the concept of twice-exceptionality does not exist in Kazakhstani education system; therefore, the giftedness of twice-exceptional students may conceal their additional educational needs in a way that they are unidentified in the Kazakhstani schools. Most teachers consider gifted students do not need extra guidance because they are good enough to navigate their own educational journey (Moon, 2009). Additionally, Moon (2009) highlighted that advanced students may not be successful in their academic and daily lives despite their learning readiness. This was supported by research studying on the underachievement of gifted students (Bell & Roach, 2001; Renzulli & Shultz, 2002), where 'the disability' is claimed to serve as one of the many reasons for underperformance of gifted and talented students.

Students' giftedness coupled with special needs exacerbates the challenge in providing adequate instruction. Teachers should always keep in mind that it is their responsibility to develop students' potential, skill and competence. When the additional needs deflate both achievement and standardized test performance, gifted students are often unrecognized (Baum, 1990). As a result, twice-exceptional students may experience discrepancies between strengths and weaknesses in their study, and they may even struggle with social, emotional and behavioral problems (King, 2005).

Current education indicates the quality of the future workforce. Students' academic achievement will directly affect a country's development. As a result, educators should gain practical knowledge of twice-exceptional students and instruct them accordingly. Due to the lack of awareness that students can be gifted and disabled simultaneously, the school system has yet to establish a policy to compensate the needs of these students. Two

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significant obstacles exist to instructing twice-exceptional students: 1) twice-exceptional students are usually not identified, and 2) the lack of related teaching experience in this unique area (Assouline, Nicpon & Huber, 2006).

Like all other developing countries the government of Kazakhstan has taken decisive actions to implement the inclusive education in all mainstream schools and ensure equal access to educational opportunities for all. Kazakhstan signed international documents, such as the Salamanca Statement (UNESCO, 1994), The UN Convention of Rights of Persons with disability (CPRD, 2006), The Convention against Discrimination in Education (UNESCO, 1961), which 'makes Kazakhstan obligatory to provide quality education for all school-aged learners including those with learning disabilities' (Makoelle, 2015, p.11).

To have all schools inclusive is one of the set goals of the State Programme 2011-2020 (SPED, 2010). Currently, the number of kindergartens and schools where inclusion is promoted and welcomed is increasing, though the process is slow.

As an experiential platform, schools for gifted and talented also possess the policy on inclusion and this document states that 'needs of different individuals must be positively addressed instead of being a cause for marginalization' (Policy on Inclusive Education, 2014, p. 2). As an experienced English teacher working at a school for gifted and talented learners, my colleagues and I have been facing the fact that teaching twice-exceptional learners is twice challenging. Beckley (1998) indicated that twice-exceptional students have never been identified, recognized and addressed appropriately. I have become keenly interested in learning how teachers conceptualize twice-exceptionality (the intersection of giftedness and exceptionality), whether all teachers understand twice-exceptionality in the same way, and what methods they use to teach their students.

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Although there are few cases where gifted students with disabilities are studying in the inclusive classes, teachers do not have the relevant skills and experience to optimize students' academic performance and enhance emotional well-being of twice-exceptional students. From all the above reasons, the topic of twice-exceptionality requires thorough research by Kazakhstani scholars.

### **Purpose of the research**

The purpose of this qualitative study is to investigate teachers' perspective of twice-exceptional children with the use of gifted program. According to Missett, Azano, Callahan, and Landrum (2016), the participating teacher's low expectations on twice-exceptional students likely drive the choice of deficit-based interventions more than strength-based ones which are indicated in the IEP rather than the gifted program. In that case, twice-exceptional students may demonstrate low performance because of their disabilities. Although twice-exceptional students are following the gifted curriculum, teachers' negative assumptions about twice-exceptional students may impede their academic progress and inhibit their potential.

### **Research problem**

Developing the skills of twice-exceptional students is not considered appropriate when compiling the gifted program in schools for gifted and talented (Omdal, 2015). Cerebral palsy is a chronic disease, which hides the giftedness. Baldwin and Viagnee (1999, p. 175) suppose that cerebral palsy creates invisible barriers to recognize and cultivate giftedness. On that account, gifted children with cerebral palsy are unable to receive gifted instruction. Instead of being educated in inclusive classes, gifted students with cerebral palsy are

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placed in special institutions for students with a similar diagnosis. The special educational need of twice-exceptionality was not put into consideration in curriculum and lesson planning including an individual differentiated approach for students in the classroom (Omdal, 2015). Lack of knowledge among teachers and family members leads to non-identification of twice-exceptional students and unreasonably forcing the learners to bear a considerable learning burden. Twice-exceptional students are often underrepresented in schools for gifted and talented due to the tiny percentage of their enrollment in schools for gifted and talented.

### **Research questions**

The research questions guiding this study:

**Main RQ:** What are teachers' perceptions of giftedness and exceptionality intersection and experience of using the gifted curriculum with twice-exceptional students in southern Kazakhstani schools?

**Sub RQ1:** What is teachers' experience on teaching twice-exceptional students and the paradox of twice-exceptionality in Kazakhstan?

**Sub RQ2:** How does the labeling or the non-identification of twice-exceptional students influence their academic performance?

**Sub RQ3:** How does the teacher's opinion about the twice-exceptional students with cerebral palsy influence the choice of inclusive strategies in the classroom?

### **Significance of the study**

The findings of this research will benefit the Kazakhstani gifted education system in several ways. The identification of twice-exceptionality and appropriate adaptation of a gifted curriculum to additional needs students can help teachers to overcome the challenges

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and obstacles in teaching twice-exceptional students in an inclusive environment. In turn, using the appropriate methods of teaching twice-exceptional students may further guide teachers to adapt and modify tasks to compensate twice-exceptional student' disabilities and also address their giftedness. Thus, schools that apply the findings from this research will be able to better educate twice-exceptional students.

### **Definition of the central phenomena (or terms as needed)**

Scholars, such as Nicpon, Allmon and Sieck (2010), define "the twice-exceptionality" as gifted students with disabilities. Research suggests that twice-exceptional students should be diagnosed, and individualized methods should be implemented to improve their academic performance.

Omdal (2005) identifies "the twice-exceptional students" as gifted learners with disabilities that are masking each other. Research suggests that teachers should pay more attention to disabilities which influence communication among students. Moreover, they offer strategies that include providing emotional and social support, adaptations for academic strength and accommodations for learning needs that address students' strengths and interests.

Van Tessel Vaska (2004) underlines the gifted program should be developed to effectively provide teachers and learners with clearly expressed goals and objectives that can be individually attained or experienced.

### **Thesis outline**

The introduction part provides the information on the background of the research topic, the problem and the purpose of the study, the list of research questions and overall educational practice in an inclusive educational environment. The research questions were

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discussed and the significance of the study to the stakeholders were reviewed in the present chapter. The following chapter, the literature review provides the information on the overview of the research on twice-exceptionality and how gifted curriculum is implemented for twice-exceptional students' needs. The Methodology chapter describes the case study approach used to investigate this research. In the Findings chapter, I present the analysis of the collected data. It is followed by a chapter on discussions of the findings with reference to the literature on twice-exceptionality that will further enrich the answers to the research questions. In conclusion, the limitations and findings' implications are provided together with recommendations and strategies for better providing the inclusive education for twice-exceptional students in schools for gifted and talented in Kazakhstan. Finally, the researcher provides recommendations and suggestions for further research on this topic.

### **Chapter 2: Literature review.**

#### **Introduction**

This section of the literature presents information about all aspects and explicit characteristics of twice-exceptional students who have both a learning disability and giftedness. It also discusses how teachers use new strategies to enable twice-exceptional children to develop their gifts while simultaneously satisfying their unique learning needs. This chapter will also discuss what twice-exceptionality means and what constitutes a twice-exceptional student.

To clearly understand twice exceptional, it is important to give a separate overview of each of the components which comprise twice exceptional. These two components are disability and giftedness.

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### **Disability and its types frequently featured by Kazakhstani learners: ADHD, dyslexia and cerebral palsy**

The literature about disability is laden with the debate on comprehending disability and impairment (Swain & French, 2010). The conclusion made in these works of literature is that children with disability are categorized as silent and voiceless sufferers or invisible under the law (Corker & Davis, 2000). In fact, Corrigan and Watson (2002) raised a problematic issue that children with disability dwell in a world which diminishes their individual differences, viewing them as students with one identity and questioning the existence of twice-exceptional students as problematic and objectionable.

Researchers from America, Goodley, and Lawthom (2005) declared that people's thinking about the disabled focuses on deficits- what they can't do- rather than what they can do. They make complex identities of the disabled as a disabling environment (Singh & Ghai, 2009). While society has the opposite view about children who are identified as gifted with a focus on what they can do is superior to their peers. Gifted students are considered as a 'vital natural resource' for the society whereas disabled students are thought of as 'a burden' to the society (Lero, Pletsch & Hilbert, 2012, para1). However, Kazakhstan defines a disabled child as a person having deterioration of health with steady functional disturbance of organism, resulted by diseases, injuries, their consequences, defects, leading to restriction of life-sustaining activity and necessity of his social protection (Seitenova & Becker, 2008).

Kazakhstani practice of teaching students with special needs in most cases is limited with teaching students mainly with disabilities. Nurturing twice-exceptional students is fraught with challenges as the local inclusive practice of teaching twice-exceptional students is a paradox to Kazakhstani teachers. Many scholars and educators search for answers to diagnose and intervene with some teaching strategies in and out of schools



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where dual-exceptional students study. Several scholars devoted their research to an empirical review examining twice exceptionality in three specific areas: a) specific learning disabilities b) deficit hyperactive disorder (ADHD) c) autism spectrum disorder (Nicpon, Allmon, Siek & Steinsen, 2011). Russian investigators Nikolayeva, Burkova and Kaznacheeva (2016) emphasize that if gifted children are left-handed, have speech disorders in attention or migraines, they will have learning difficulties. These scholars point to the fact that the left-handed writer is a gifted student. On the other hand, they accept the left-handed student as a student with special needs. That's why it is vital to classify the disabilities that can be found as a combination of twice exceptionality for Kazakhstani context.

The dual-combination can be confusing and sometimes scary for teachers whose students succeed in certain areas but struggle in others. The Kazakhstani report doesn't provide information on how many children with disabilities are currently studying in the inclusive classes and there are no statistics on what kind of disabilities are studying in the inclusive schools. Identification of dual-exceptionality can precede excellent academic outcomes and inclusive approach to the various exceptions of each student. However, ADHD may easily be confused with giftedness. Gifted students and students with ADHD have common characteristics, even though the conditions and causes are diverse. Students who are gifted may show absentmindedness, fidgetiness, and off-task behaviors since they are bored in school and are not challenged. These behaviors regularly don't denote students to be gifted in all settings. Similarly, students who have ADHD show these behaviors in different settings, from domestic circumstances to school. In contrast, gifted learners may display high activity and focus on the topic for a long time if they are really interested, where students with ADHD may present hyper activeness regardless of interest (Webb & Latimer, 1993). The question of the dual-exceptionality of giftedness with ADHD is an

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urgent issue to investigate in education that needs an empirical research not only in education but in medicine as well, due to a growing number of students with ADHD in Kazakhstan. According to the OECD report, only 10 percent schools had facilities to provide inclusive education, but it is growing quickly to (19.1% in 2011 and 23% in 2013) and the government aims to raise this to 30% by 2015 and 70% by 2020 (OECD, 2015 p.85).

Dyslexia is the special need that doesn't need any medical interventions which can be one cause of chronic cerebral palsy. A couple of scientists claim that gifted children with dyslexia, in spite of having severe word level education challenges, spell better than their average peers with dyslexia (Lyman, Sanders, Abbot & Berninger, 2017).

Viersen, Bree, Kalee, Kroerson and Jong (2017) focused on secondary students' reading and spelling acquisition in a foreign language, comparing the result with the achievement in the native language. Generally, the findings show there are no clear identifiable contrasts between average students with dyslexia and gifted students with dyslexia in English and orthographic knowledge, while gifted students with the dyslexia display a higher acquisition of native language than average students with dyslexia. This quantitative research is significant for us as although it investigates the English language also investigate the teachers' opinion about the challenges that twice-exceptional students face in learning English.

Gifted learners may experience difficulties in learning due to a range of physical conditions –one of them being cerebral palsy. Although, there is extensive research on 'gifted students with disabilities' (Yewchuk & Lupart, 2000), 'gifted learners with learning disabilities' (Silverman, 2003), 'twice', 'dual' or 'double-exceptional' gifted children (Montgomery, 2006), specific research on the gifted child with cerebral palsy is restricted

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to four papers by Hort (1993,1994,1998) and by Stanly and Merrits (2013) (Eade & Merrotsy, 2013,p.22).

To assess the cognitive ability of a gifted student with cerebral palsy, it is important to discuss the research works in which teachers use assistive technology to better support gifted students with cerebral palsy. According to Rosenbaum, Paneth, Leviton, Goldstein, Bax, Damiano, and Jacobsson (2007) 'Cerebral palsy (CP) describes a group of permanent disorders of the development of movement and posture, causing activity limitation that is attributed to non-progressive disturbances that occurred in the developing fetal or infant brain. The motor disorders of cerebral palsy are often accompanied by disturbances of sensation, perception, cognition, communication, and behavior; by epilepsy and by secondary musculoskeletal problems' (p. 9).

Not only simple identification method – standardized tests but also observation checklists cannot reveal the real potential of a gifted student with cerebral palsy. For example, the students who have language impairments can't respond to tests or speaking drills, or students who have limited to mobility can't perform in the classroom with peers and often can't display their creativity. According to the results of this research, authors made two findings that gifted students with cerebral palsy don't exhibit indicators of cognitive ability as other gifted students do. The second finding is that classroom atmosphere, structures, and instructional activities differentially influence the intellectual development of gifted students with physical disabilities (Halt, 1994).

### **Gifted learners**

Reid and Boettger (2015), as well as Silverman (2013), conclude that most gifted programs are designed for ambitious and high achieving students. The vast majority of the gifted are hidden like the bottom of an iceberg. The major responsibility for identifying

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gifted learners often falls on teachers. For that reason, they believe that gifted learners should be recognized by professionals like school psychiatrists who have professional knowledge and skills to handle the issues of giftedness. The latter assertion is the point where Russian researcher Polozhai (2013) and Boettger et al., (2011) consider the giftedness and twice-exceptionality as a psychological issue to tackle. Russian scholar Polozhai (2013) concluded that schools needed a psychological plan to assist gifted learners with exceptionalities to accommodate them during lessons. Additionally Torrano & Tursunbayeva (2016) presented research that found that teachers' expectation may reduce potential bias and discrimination in identifying gifted students in Kazakhstan. At the same time, disability support programs in Kazakhstan are still in the process of moving away from the Soviet Education Model of segregating disabled students from society and mainstream schools (Polizhai, 2013).

Analyzing the historical background of Kazakhstan it is assumed that the most of the current approaches of identifying and encouraging giftedness have been strongly influenced by the Soviet Regime. The Soviet education system was focused on science and math where giftedness was identified by the testing system and performance-based assessment. Another style of working with gifted children was aimed at preparing children for subject Olympiads (Yakovets, 2013, p. 519). This rigorous style of competition is still the main approach the modern Kazakhstani education refers to (OECD, 2014).

### **Intersection of giftedness with exceptionality**

Firstly, it is quite odd and contradictory to think of the concept of giftedness as a twice-exceptionality because it is usually hidden and not identified in a twice-exceptional learner (Sternberg, Jarvin & Grigorenko, 2010). The term was first used by Gallagher where he meant children who had giftedness and a disability (Coleman, Harradine & King,

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2005). From the same perspective Assouline, Nicpon and Huber (2006) agreed that a learner 'is considered twice-exceptional when he or she is identified as gifted/talented in one or more areas while also possessing a learning, emotional, physical, sensory or developmental disability' (Assouline et al., 2006, p 14). Educators find it difficult to understand the paradox between being gifted and being disabled (Neihart, 2008).

According to several authors such as Baum, Owen, Foley - Nicpon and Trail (2010) students who were identified as students with special needs could also have special talents or gifts. Foley-Nicpon (2011) further agrees that gifted students can have a coexisting disability naturally. Difficulties in moving, speaking, reacting to others' speech or writing may exist in twice-exceptional gifted learners. Wood and Estrada - Hernandez (2009) wrote that twice-exceptionality or the intersection of giftedness with exceptionality is a diverse sphere of individual experience. In addition, Ambrose, Van Tassel-Baska, Coleman and Cross (2010) propose that 'education or other fields in the science can benefit from forays into interdisciplinary terrain which will render new ideas and methods' (Ambrose et al., 2010, p 28). By saying this, authors highlight the idea that exceptionality might be diverse depending on the range of a particular medical condition of a child and giftedness. Some medical conditions can be reconditioned through exercises and experiences. On the one hand, teachers may acquire experience working with twice-exceptional children, on the other hand, other typical learners will learn to respect the diversity which they may face during their lifetime.

There are various interpretations of giftedness. For instance, Renzulli argues that there are two kinds of giftedness-schoolhouse which is expressed through the excellent performance in school subjects and creative-productive where adults can be successful in life although as students may not have achieved success in school projects (Sternberg et al., 2010).

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Renzulli suggested a 'three-ring' conception of giftedness that is the intersection of ability, task commitment, and creativity. However, these components cannot show that a learner is gifted if there is no interrelationship between them (Renzulli, 2000). Similarly, Csikszentmihalyi (1993) interpreted giftedness as an interaction between an individual and the environment, which occurs through talent and experience. However, Van Tassel-Baska (1992) believes that giftedness is multidimensional, and it can be influenced by genetic and environmental factors. Focusing on students' ability is crucial in developing school curriculum due to advanced work that will help students to master their ability and gifts.

### **Gifted curriculum for twice-exceptional students**

It is vital to focus on students' evolving strengths, interests and intellectual abilities. Since learning or physical disabilities are rather permanent, the practice of teaching with effective strategies, Individual Educational Plans, Differentiated Curriculum, teacher support, and scaffolding are advisable to implement. These techniques could include advanced organizers, technology and a variety of communication devices (Kirk, Gallagher & Coleman, 2011). Every activity should be designed to develop strengths and interests to challenge the twice-exceptional students. Nielson (2008) highlighted that twice-exceptional children must be treated as being 'at promise' rather than 'at risk' (Neilson, 2008, p 7). That's why programs must pay special attention to preventing the disability from becoming a barrier in the expression of a child's talent. Teachers develop alternative ways and communication so that the students can learn according to their strengths (Reis, Neu & McGuire, 2000).

Krochak and Ryan (2007) expanded upon Vaidy (1993) to point out that parents mostly concentrate on difficulties and neglect the importance of nurturing their child's

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giftedness. Due to this fact, it is important to organize a meeting where parents and teachers work together to understand the combination of giftedness and disability.

Twice-exceptional students also need time to become conscious of and to develop their giftedness. It means providing enriching and stimulating cognitive experiences where they can solve problems. Students with double exceptionalities require a program that is challenging and yet also provides strategies to accommodate weaknesses. Teachers will notice willingness and desire on the part of the student in expending effort to complete the task (Baum, Emerick, Herman & Dickson, 1989).

Coleman (2003) identified four main variables that can help students with dual-exceptionalities to be successful. Those are time, structure, support and complexity. Teachers can optimize learning within time because it is flexible.

Furthermore, the time required to achieve success by gifted students with learning difficulties will vary. Coleman (2003) concludes that students become aware of their understanding through metacognitive approaches. The structure concept consists of three areas: the structure of the curriculum, the structure of pedagogy and structure of the classroom. If teachers can present big ideas, then students may master and concentrate on the most important aspects of the learning activities (Bulgren, et al., 1988). The notion of 'less is more' is beneficial for all students but it is essential for students who are twice-exceptional. That's why topics which often may lead to numerous errors and inattentiveness in the curriculum should be changed into the less is more concept.

The next variable is the support where the purpose is to build the student's confidence and teach him to operate independently. Coleman (2003) delves further in this research in suggesting a complexity aspect to include in the curriculum which is not created to puzzle students. It is to ensure that their learning is deep and their understanding is solid through

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projects indicated in the curriculum. The complexity variable should be included in the curriculum so that students can activate information and apply it in a meaningful way such as real-life problems. Coleman (2003) underlined that teachers complain that the work for twice - exceptional students is too complex, and they try to make things easier, but doing so only serves to undermine students. In combining the curriculum content teachers should adjust three options- giving more time, structuring learning, offering additional support but still hold the complexity level as high as possible. It will encourage students to deepen their knowledge and reflect deeply on their learning.

In general, educators and teachers use different methods to identify and develop twice-exceptional student's giftedness and satisfy their needs. That's why it is a significant issue to investigate teachers' awareness and experience.

### **Teachers' experience of teaching twice-exceptional students**

The implementation of inclusive education in Kazakhstan raises the important issue of educating twice-exceptional students. Studies internationally show an increasing number of gifted students with disabilities studying at the mainstream schools (Bridges, 2014). Teachers' awareness of twice exceptional students is an open question because very little research has been conducted on it.

Omdal (2015) stated that teachers learn about the masking conditions of twice-exceptionality and understand why such students behave in that way. They may not understand the text or may have dysgraphia or write short answers because writing is so laborious. That's why persons who are planning to teach twice-exceptional students need specialized training in both gifted and special education. Otherwise, twice exceptional students may end up cognitively underrepresented or underperforming (Omdal, 2015).



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Hamre and Pianta (2001) found that students who had a high level of warmth and support from the teacher had better achievements. In contrast, Lee and Olenchak (2015) state that 132 school teachers were not able to identify giftedness of their students because teachers first focused on their disability. Reis, Baum, and Burk (2014) agree that the educational success of twice-exceptional students depends on teachers' understanding of giftedness, disabilities, and their intersections. These authors support the idea that teachers should be prepared professionally to teach dual exceptional students.

The most interesting findings were investigated by Reis et al. (2014) who highlighted that teachers are not willing to accept the twice-exceptionality further propagating that children with disabilities cannot be gifted (Reis et al., 2014). If twice-exceptional students are misdiagnosed and therefore are not treated properly, teachers' practice will end up being unsuccessful. Overall, all stakeholders such as school administration, students, teacher, and even parents could lose as a result of misdiagnosis of twice-exceptional students. Kennedy, Higgins, and Pierce (2002) proposed that a collaborative partnership among teachers could be a way to address this issue, and it could also become a goal for schools with twice-exceptional students.

### **Theoretical framework**

Vigotky and Bandura (2000) identify social constructivism as learning from reality within the definite culture and context. However the main features were borrowed from Derry (1999) and McMahon (1997) who consolidate that named theory consists of reality, knowledge and learning. Due to teachers' existing understanding of twice-exceptional students and how they perceive and practice with twice-exceptionality this theory perfectly frames my research. My research framework is established based on this theory which is to analyse teachers' current understanding of twice-exceptional students and how they perceive and practice with twice-exceptionality.

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### **Conclusion**

To conclude this chapter, I reflect on the fact that teachers' experiences and acceptance of twice-exceptional children into the mainstream school may vary due to the degree of the implementation of inclusive education in public schools. It is an urgent issue to research because it should be thoroughly understood and realized within the inclusive education field in Kazakhstan. The more teachers get experience in working with twice-exceptional students, the better equipped will teachers be to apply effective methods that guarantee a bright future of the twice-exceptional students.

### **Chapter 3: Methodology**

#### **Introduction**

The 21<sup>st</sup> century learners are distinctly different from the previous generation as they come from a multitude of sociocultural backgrounds. The inclusion of diverse population among whom there are the 'gifted and talented' with disabilities has forced educators to rethink about their teaching (Subbon, 2006).

Outlining the theoretical roadmap of this thesis, I adopted the theory of Social Constructivism because this philosophical approach gives a perceived importance to the understandings, beliefs and experiences of school teachers about twice-exceptional students and gives an opportunity to evaluate and justify real understandings of teachers on using Gifted Programs with twice-exceptional students through the interpretivism paradigm. Piaget and Vigotsky claim that learning is through social constructivism. It has a major influence on participants and their behavior (the use of Gifted program for twice-exceptional students, accommodations or modifications) (Engeström, 1999). This study is grounded in the assumptions that reality is constructed from teachers' views, and experience. Thus, this theoretical framework is well suited for this research.

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Furthermore, the purpose of this study is closely related to constructivist theory because it identifies whether the teachers' expectations are to use deficit based interventions or strength based instructions according to the gifted program they are working in. The theoretical framework of the research guides the study from recognition of the problem, data collection, analysis to discussion.

### **Research design and rationale**

The aim of this qualitative research is to investigate the educational experience of teachers and their opinion on how their understanding impacts on the use of a gifted program in the context of a case study of a twice-exceptional student. The research examines whether teachers' opinions about the twice-exceptional students influence the use of instructions or the way of presenting lesson objectives to a twice-exceptional student indicated in the gifted program. It also studies inclusive strategies that enhance the performance of a twice-exceptional student – giftedness and cerebral palsy. As it is a small-scale research, the case study is a relevant research design. Cresswell (2014, p.1) states that 'the case study approach allows in-depth, multi-faceted explorations of complex issues in their real-life settings'. The rationale for doing this research is that many schools in Kazakhstan do not have a Policy of Inclusive Education on the brink of implementing the new Reform of SEN 2020. Secondly, there are growing numbers of twice-exceptional students entering Kazakhstani schools for gifted and talented students, who suffer from lack of any inclusive approaches and their education is disadvantaged because of it.

### **Research site**

The research site is at a school for Gifted and Talented in South Kazakhstan, an elite secondary school with 754 students. This school provides physical access to ensure equal learning for the students who may be physically disabled. It has special elevator and a toilet

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for students with special needs. Though the school does not have an official inclusive policy, the ideal of education equality and equity is supported by every member of the school community.

### **Sampling participants**

A heterogeneous purposeful sampling was used in this case study based on the criteria that all respondents have worked in the school system at least five years. Their gender or age was not important. Cresswell (2014, p.16) describes sampling as 'the researcher purposefully samples individuals or sites based on membership in a subgroup that has defining characteristics. To use this procedure, you need to identify the characteristics and find individuals or sites that possess it'. The researcher decided to choose eight participants for individual semi-structured interviews, in addition, four teachers were invited for a focus group discussion to further confirm or reject the opinions gathered through the individual interviews. Individual interviews were taken from eight teachers and it was valuable for the research since different teachers shared various opinions about the usage of Gifted Programs with twice-exceptional students. The main criterion for selecting respondents to focus group discussion and individual semi-structured interviews is the same it is five years' experience in the school system.

The researcher invited participants for individual interviews and focus group discussion prior to starting the interview or focus group, the purpose and nature of the study was clarified. Each of them agreed to participate in research. All of the respondents signed a consent form, which contained the following information about study: description, time involvement, risks and benefits, participants' rights, my contacts and my supervisor's contacts (See Appendix A for informed consent forms). All participants were informed that interviews would be audio recorded with their permission (See Appendix C for informed

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consent forms). Use of audio recording devices gives researcher more opportunities to analyze their speech more deeply post interview (Creswell, 2014, p. 243). See Table 1 for a description of the interview participants and Table 2 for a description of the focus group participants.

**Table 1. List of participants: *Semi-structured interviews***

<i>Individual Interviews</i>				
<b>No.</b>	<b>Pseudonym</b>	<b>Gender</b>	<b>Age</b>	<b>Working experience</b>
1	Teacher 1	Female	27	4 years
2	<i>Teacher 2</i>	<i>Female</i>	32	<i>14 years</i>
3	<i>Teacher 3</i>	<i>Female</i>	50	<i>24 years</i>
4	<i>Teacher 4</i>	<i>Male</i>	38	<i>15 years</i>
5	<i>Teacher 5</i>	<i>Female</i>	35	<i>13 years</i>
6	<i>Teacher 6</i>	<i>Male</i>	42	<i>18 years</i>
7	<i>Teacher 7</i>	<i>Male</i>	54	<i>28 years</i>

**Table 2. List of participants: *Focus group discussion***

<i>Focus group discussion</i>				
<b>No.</b>	<b>Pseudonym</b>	<b>Gender</b>	<b>Age</b>	<b>Working at NIS</b>
1	Teacher 8	<i>Male</i>	40	<i>5 years</i>
2	Teacher 9	<i>Female</i>	37	<i>5 years</i>
3	Teacher 10	<i>Female</i>	45	<i>5 years</i>
4	Teacher 11	<i>Female</i>	47	<i>5 years</i>

### **Data Collection Instruments**

This section describes the data collection instruments. Three methods of data collection were used: observation, semi-structured interviews and a focus group discussion.

This research design consists of the interviews with teachers (from a school for the gifted and talented, south Kazakhstan) on their understanding of intersection of giftedness and exceptionality (twice-exceptionality). It also includes lesson observations in various subjects of the school in southern Kazakhstan. Observations were purposefully chosen such as Math, Biology, Chemistry, Languages and Art to observe challenges across subject

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areas. These instruments were used to triangulate the research for increasing the validity and reliability of the results. Denzin and Lincoln (1994) consider 'triangulation as a strategy leading to a deeper understanding of the issue under investigation' (p.179).

### **Observation**

The researcher observed the lessons of different subject teachers to define how teachers work with the twice-exceptional student at this research site including how the student was instructed throughout various school subjects.

Observation is a data collection instrument used in qualitative research. The major strength of observation is that it enables the investigator to collect a first-hand account from the real situation. 'Live' data from in situ presents more reliable and valid information that the researcher could take for granted (Cohen, Manion & Morrison, 2001, p.396). Compared to an interview, observation enabled the researcher to acquire a reality check, since frequently what people say may not coincide with what they do (Robson, 2002, p.310). The researcher was observing and seeking evidence for teachers' interaction with twice-exceptional students' interest, participation, engagement and challenges during the lesson. The observation checklist looked at whether teachers used lesson adaptations or modifications to the tasks throughout the lesson to better support the twice-exceptional student. Furthermore, the researcher attended lessons to determine which teaching strategies appeal to the needs of the students and if the teachers gave clear expectations in terms of achievement behavior and a friendly encouraging atmosphere.

### **Interview**

The researcher interviewed the research participants to confirm the appropriateness and validity of the gathered information. The semi-structured interview is another data-gathering technique which engaged the participants and the interviewer into

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communication. In a one-on-one interview, the response rate is high because of the personal contact; it contributes to obtaining relevant information and answers to the primary research questions. Furthermore, the advantage of interviewing the participants allows the researcher to be flexible when collecting desired data (Ary, Jacobs, Sorensen & Walker, 2014).

The focus group interview is a specific category that allows collecting the shared perceptions of the sample participants through a discussion. The interaction between the participants helps the researcher discover the final consensus (Creswell, 2012). However, both observation and interview methods have limitations, as in either of the cases; the responses can be subjective or biased. The researcher developed eleven interview questions which required teachers' answers about teaching twice-exceptional students. Before going to straight to the data collection, the researcher decided to conduct a pilot interview with a curator of a twice-exceptional student. The purpose of piloting was to test the interview questions to see if they are easily understood. During this pilot interview the researcher realized that some questions needed clarification in Kazakh because the word twice-exceptional is quite difficult to explain in Kazakh therefore it doesn't have a direct translation and the researcher had to clarify it with a long explanation. As a consequence, notes were taken to further improve clarity of the protocol.

### **The procedure of focus group discussion interviews**

The focus group was conducted in Kazakh only as the study participants didn't speak English or Russian. Three female and a male participants were invited to a room to have discussion about the educating twice-exceptional students. All the participants were interested and ready to share their experience and attitudes on this topic. When respondents

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gave short answers the researcher probed further with them additional questions about what they said, trying to better engage them into discussion.

### **Data Collection Procedures**

The research project was conducted in accordance with ethical principles and standards. It was required from the researcher to offer a description of research procedures to the ethics review board of Nazarbayev University Graduate School of Education prior to collecting any data.

As soon as the approval was granted by the NUGSE Ethics Committee, the researcher asked the school principal in the chosen research site for permission to conduct the research. As mentioned above, the participants were chosen on a purposeful basis and were given an introductory letter, a consent form and a support letter from the researcher's supervisor.

The observational protocol was prepared including time, place, setting and researcher's observational role. An interview protocol was also designed beforehand, which contained interview information and instruction. Prior to the interview, the participants were informed about time and site by the interviewer. All the responses were recorded in agreement of the participants, and data was transcribed and translated into English.

### **Data Analysis Methods**

All collected data was stored, sorted, visualized and represented manually. In observational protocols and interview codes, the researcher marked jottings of key words by hand (Burton, Brundrett, & Jones, 2014).

Then the researcher started the coding procedure and created a table for transcribing interviews. The researcher used the hand analysis of qualitative data, i.e. 'read the data,



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mark it by hand, and divide it into parts' (Cresswell,2014, p.263). While writing the first draft of findings the researcher didn't translate all data into English, but translated just some 'juicy quotes'. The next stage of my data analysis was to look for themes that emerged from the data analysis. Having analyzed the obtained data, I established two main themes: a) teachers' experience of working with twice-exceptional students and b) teacher perceptions of giftedness and exceptionality intersection.

The first category included following subtopics such as methods of identifying gifted learners with exceptionality (twice-exceptional learners), educating twice-exceptional students, challenges they face and labeling gifted learners with exceptionalities (twice-exceptional students).

The next category contained how teachers identified gifted learners, the way they perceive the intersection of giftedness and exceptionality, what strategies they choose to teach gifted learners with cerebral palsy and how teachers understood the gifted program.

### **Ethical Concerns and Risks of Research**

The researcher followed ethical principles and standards and referred to the Ethical Guidelines for Educational Research (BERA, 2011). The participants were treated respectfully, but in case of any risk of becoming upset, the researcher stopped the interview.

Nobody, except the researcher had access to the data. Participants were given pseudonyms. Teachers were assured that the interview was confidential and was not shared with their employer. All of the collected data was used only for research purposes. They were also told that they could refuse to answer any questions they were uncomfortable with or stop the interview at any time.

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### **Conclusion**

The methodology of my research is presented in this chapter. Research methodology is justified by literature; research site and sampling selection, the process of analysing data were described according to ethics review.

### **Chapter 4: Findings**

#### **Introduction**

The findings, described in this chapter, uncover the influence of the usage of the gifted curriculum in teaching twice-exceptional students from two basic angles:

1. Teacher practice with twice-exceptional students
2. Teachers' perceptions of teaching twice-exceptional students.

The findings were analyzed according to the four research questions developed for the study:

#### **Research questions**

**Main RQ:** What are teachers' perceptions of giftedness and exceptionality intersection and experience of using the gifted curriculum with twice-exceptional students in school for the gifted and talented in southern Kazakhstan?

**Sub RQ1:** What is teachers' experience on teaching twice-exceptional students and the paradox of twice-exceptionality in the participating school?

**Sub RQ2:** How does the labeling or the non-identification of twice-exceptional students influence their academic performance?

**Sub RQ3:** How does the teacher's opinion about the twice-exceptional students with cerebral palsy influence the choice of inclusive strategies in the classroom?

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The main research question considers the characteristics of the teaching experience of twice-exceptional students in a school for the gifted and talented in south Kazakhstan. This experience is analyzed through the lens of teachers with four to five years of teaching experience. The above mentioned research questions shed light on how teachers believe the curriculum should be adapted to benefit teaching twice-exceptional students. There is a crucial need to explore the educational experience of twice-exceptional students in state schools because this topic has not yet been explored by any practitioners or researchers in Kazakhstan. Every gifted child has their own learning challenges; however, those with twice-exceptionality are often neglected by their teachers and school psychiatrists. From the findings of semi-structured interviews conducted in this case study research, it can be inferred that it is of critical interest to draw attention to how teachers perceive and experience twice-exceptional students in the Kazakhstani context.

### **Framework**

Through the triangulation of data collection, this research applied social knowledge about perception and practice with twice-exceptionality of students (Vigotsky, 2000). This theoretical framework was employed within identifying the definition of twice-exceptionality in this research, organizing the methodology section and creating a design for the study, as well as, creating literature review section and evidences contributing to teachers' perceptions in the discussion chapter.

### **Teachers' practice with twice-exceptional students**

### **Teachers' experience of working with twice-exceptional students**

Teachers should be cognizant of this paradox because contradictory exceptionalities do not give a chance for twice-exceptional students to develop to their full

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potential, such as the case where some gifted learners may need time to assimilate new topics whereas other gifted learners such as students with cerebral palsy may need more time to answer the questions or write an essay. Teacher 8 and Teacher 10 explained that while gifted students with cerebral palsy were trying to control direct speech or to improve their writing speed, their giftedness is often lagging behind because they are taught on a par with other typical students; 'Even though teachers know that there is a need to make adaptations or modifications in the lesson plan for a particular student, we can't do it, because we want twice-exceptional students to be the same as others..' (Teacher 6). As a result, some teachers are perplexed with the characteristics of disability and giftedness, and ignore it.

However, teachers believe that learning barriers of twice-exceptional students can be overcome in time. Gradually, twice-exceptional students may get accustomed to 'the speed' and 'learning style' of the group while teachers may get used to the 'talking and writing manners' of twice-exceptional students. Consequently, most teachers in this study conclude that it is better not to use any inclusive strategies with twice-exceptional students.

Two teachers (Teacher 11 and Teacher 12) agree that it is useful to organize a meeting with 'similar subject teachers', such as Language teachers with History teachers, and Science teachers with Math teachers to share their opinion on how to work and what assistance to offer to twice-exceptional students.

### **Methods identifying gifted students in class**

The first finding is related to teachers' practice of working with twice-exceptional students because exceptionality consists of giftedness and special needs. To identify their giftedness, the semi-structured interview results revealed the following: First, 'the IQ test is very important in determining the students' giftedness from the first days at school. It

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helps teachers to compile an individual plan where teachers identify the areas or subjects for development' (Teacher 3). Second, 'the giftedness may also be diagnosed through leveled tasks or high order thinking questions' (Teacher 2). Third, 'Giftedness is not identified with definite methods because it is individual performance of a brain that can be expressed through project works in the Arts or Language lessons' (Teacher 4). Furthermore, 'Gifted students are distinguished with their witty ability when you question them during morning meetings and class hours' (Teacher 1). Finally, Teacher 6 added:

The main and most authentic way of determining students' giftedness is through questionnaires in Action Research or Lesson Study. While organizing various activities in Action Research lessons, students who complete their tasks first and take a leading role in the groups works are usually the gifted learners. As for Lesson Study, in planning consecutive lessons, teachers identify gifted learners with other team members, or through the school psychiatrists with the help of the multiple intelligence test of Howard Gardner.

### **Tools to identify twice-exceptional students in class**

There is an ambiguous relation between giftedness and special needs; therefore, both giftedness and needs should be identified systematically and developed by priority.

Findings revealed that most teachers discovered the exceptionality after they had had several lessons with a particular student through careful observation during their lessons.

Teacher 7 mentioned that 'Twice-exceptional students may have completely different behaviour because their personalities may differ from typical students'.

Teachers often identify twice-exceptional students by their handwriting and sound articulations as Teacher 9 highlighted, 'As a result of recorded observation procedures, teachers may notice some retardations in any skills; therefore, they should go to the

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psychiatrists or school doctor for advice. It would be beneficial to effective lesson planning'.

The study findings demonstrated that the teachers agreed that 'incomprehensible handwriting' is one method to identify exceptionality of students (Teacher 3). According to teachers' opinion, 'handwriting is the mirror of the soul that can diagnose either his giftedness or exceptionality' (Teacher 11).

Asking convergent questions is another tool to identify twice-exceptionality as Teacher 12 urges 'When teachers ask convergent questions, some gifted learners can constantly give quick and correct answers whereas twice-exceptional students may take some time but are able to provide extraordinarily creative answers' (Teacher 12). The study unfolds interesting findings that teachers prioritize the exceptionality over the giftedness.

Most teachers defined 'going to the school doctor for their diagnosis' as a tool to identify the students' exceptionalities and to obtain new ideas of working with 'those' learners due to the fact that the medical record of students' diagnosis of every student in class are confidential. No one, except the curator, has full access to those documents, and teachers are required to go through 'several permission procedures' to obtain those documents, such as the official application addressed to the school director then agreed upon by two vice principals.

### **Educating twice-exceptional students**

Findings shed light on three underlying sub themes: teachers' beliefs of teaching twice-exceptional students, teachers' attitude towards teaching twice-exceptional students and peers' support with twice-exceptional students. Participants believe that teachers should stimulate twice-exceptional students' learning interest into the subject in the form

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of active games, various types of differentiation, motor skill activities and the creative learning materials. Teachers gave examples when students choose topics according to their interest such as technology, social media and entertainment (Teacher 5 & 7).

The category of teaching beliefs with twice-exceptional students also includes pre-lesson preparation which consists of creating a 'convenient atmosphere', where the teacher can talk to the twice-exceptional students and give 'warm hugs' to help relieve the twice-exceptional students' learning pressure (Teacher 7).

According to Teachers 9 and 10, teachers 'infringe sociocultural knowledge into the minds of twice-exceptional students with the means of asking divergent questions concerning everyday life news' (Teachers 9 and 10). Finally, Teacher 12 believes that it is crucial to convince twice-exceptional students of a bright future through 'inspiring videos, talks and persuasion' regardless of their special educational needs.

When narrowing down to the subtheme of teachers' attitude towards the intersection of giftedness and exceptionality (twice-exceptional students), stereotypes exist as teachers include inclusive strategy for the favor of a student with cerebral palsy. Teachers' actions often become the distraction of peers' attention from the lesson procedure due to the fact that extra attention is paid to the twice-exceptional students. Another similar case is the class instruction only needs to be given to typical students 'once' but it is necessary to provide 'repetitive' explanations of covered topics to twice-exceptional students. It was advised by the interview participants to conduct extra classes for twice-exceptional students to help improve their academic performance.

Furthermore, Teachers 3 and 7 believe that it is not necessary to make any adaptations to the curriculum out of pity ("musirkeu or obektey"<sup>1</sup>) for twice-exceptional students because it indicates that teachers' attention on other students is divided and it may result in

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<sup>1</sup> Musirkeu, obekteu- teachers' feelings of pity and sorrow for students with special needs

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inequality between peers in a classroom. The stigma of this psychological tension in the classroom becomes the major obstacle for twice-exceptional students to complete the tasks they were challenged in.

On the contrary, Teacher 9 feels that twice-exceptional students may get 'embarrassed' or 'anxious' when their teacher organizes adaptations or modifications for them because they do not want to be distinguished from other typical students or being labeled as 'the weaker ones' (Teacher 9).

The last category is peers' support for twice-exceptional students. Two participants claimed that they had never heard of the term 'twice-exceptional students', and that is the reason they had never thought of providing any modifications to the tasks (Teachers 1 & 4). In contrast, Teacher 9 underlines the fact that teaching twice-exceptional students together with other typical students is more beneficial to the school community because it creates an inclusive and friendly environment. Consequently, classmates are 'responsive' and may initiate peer or group support during lessons to students they recognize as needing extra assistance.

### **Teachers' practice of using inclusive strategies with twice-exceptional students**

These findings reflect the good practice of inclusion in education in which teachers use various strategies, which can be divided into two main categories:

The first category of strategies mostly refers to remedial strategies which are used by all the participants of the case study in achieving a standardized academic education for gifted students with physical disabilities taking into account the learner's needs, interests, and characteristics which are the most important caveats in accepting students with special needs in the schools for gifted and talented for the first time.



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This suggests that the collaboration of administration, teachers, psychiatrists and parents are promising steps to developing an inclusive school environment. As it was previously mentioned, the school community in collaboration with parents discuss the use of remedial strategies by meeting with all teachers, psychiatrists, curators and parents where they develop measures according to a student's challenges which are officially written in the student's records and then serve as a guiding document to assist a student with an identified special need. On the other hand, during the regular meeting with their curator, all students are taught to respect each other and the etiquette needs for self-management with the additional educational needs students so that the barriers in communication of twice-exceptional students with other students can be eliminated. The curator takes the psychiatrists' consultation on improving the behavior of a student with a physical disability. According to the psychiatrists' consultation, teachers use peer or group work activities during the lessons, where there is a strong support from peers to a student with special needs such as further explaining answers to open-ended questions, to assist when speaking in a debate where a student with special needs may speak in simple phrases because it takes too much time and effort for some students such as the twice-exceptional student with cerebral palsy.

At the same time 'collaboration with peers is successful in activities that require the writing dexterity because it is very hard to control the left side motor skills for the student with cerebral palsy' (Teacher 7).

For the same purpose, the chemistry laboratory lessons are accepted as the strategy needing peer support to work successfully with twice-exceptional students to avoid physical injuries: 'This is the most important strategy because it helps twice-exceptional students not to get burnt, but the peer helps physically but not mentally' (Teacher 5).

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The second category of strategies that teachers are experiencing are the individual works with twice-exceptional students, extracurricular lessons, additional instruction to create presentations on a definite topic, making posters and using sketchbooks. Individual tasks for twice-exceptional students 'have influence on students' academic performance', 'making photos out of school and drawing in sketchbooks' enriches creativity (Teacher 6). Teachers mentioned that these were the strategies that helped twice-exceptional students to develop both mentally and physically.

### **Major challenges twice-exceptional students experience**

Before mentioning how labeling and non-labeling twice-exceptional students may influence the academic results of the students, the challenges twice-exceptional students face in educational needs to be defined. These challenges can be classified into three categories: mental, physical and material difficulties.

The examples provided in this study refer to a gifted student who also has cerebral palsy. Concerning mental challenges teachers mentioned 'speaking retardation', when twice-exceptional students needed more time to brainstorm their answers in various types of speaking activities than typical students. According to Teacher 1, 'mental retardation' can occur when twice-exceptional students are doing reading and listening comprehension tasks as well as Math problems that can result in unsatisfactory academic performance. Teacher 4 adds: 'Because of the tension and state of their health, twice-exceptional students (with cerebral palsy) could not respond to the class instructions promptly which impacts their behavior as well as academic achievements' (Teacher 4).

According to findings of the research, the second category includes poor writing habits and limited physical mobility in the classroom. One of the solutions teachers constitute is 'to make twice-exceptional students write for many hours at home to improve their

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handwriting' (Teacher 2). However, teachers identify additional challenges that can be mental and physical at the same time. Teacher 6 highlights the case when 'twice-exceptional students have to limit their answers to two sentences due to physical and mental challenges because they need much time to digest the information and think in order to provide complete answers' (Teacher 6).

Finally, similar to the results in the interviews, lesson observations and focus group discussion revealed that the students with cerebral palsy are experiencing the almost same challenges and benefits in learning because of their twice-exceptionality. However, Teacher 10 realized that, over the last two years of his teaching, he had obtained considerable knowledge and a thorough understanding of students with special needs. The Updated Program of Learning strictly requires fellow teachers to 'check, moderate, plan the lesson, compile the works of Summative Assessment per Unit and per Term'.

This is the reason Teacher 10 strongly advises that teachers should obtain a professional experience of teaching inclusive classes with the purpose of supporting students with both giftedness and special needs.

On the other hand, Teacher 11 lamented that it was completely overwhelming for gifted students with cerebral palsy to write a 2000 words essay on a definite topic in history to meet the requirements of the External Summative Assessments. It is because the examiner may fail to understand the students' handwriting which can result in giving a score much lower than what students should deserve. Moreover, Teacher 11 wished to give a suggestion to the school administration to make an adaptation in the requirements of the External Summative Assessments by making them 'twice-exceptional student friendly'.

Teacher 9 identified the third category of challenges the twice-exceptional students are facing. Their socio-economic background is often the major cause of material challenges. Many of these twice-exceptional students are from 'the socially disadvantaged

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families' and they illustrate this case with the fact that there is 'the shortages of papers, crayons and sometimes pens' (Teacher 9).

### **Labeling and non-labeling twice-exceptional students**

Data analysis provided insights into the issue of how labeling and non-labeling of twice-exceptional students may influence their academic performance with a consensus among participants that labeling a twice-exceptional student negatively impacts the student's performance. As a consequence, in most cases, teachers and peers perceive gifted students with an identified additional challenge such as cerebral palsy as academically poor and needy.

When I plan my lessons or organize any group work, I don't make any major adaptations or modifications because it can be concluded by other peers in class that I feel pity [for this gifted students with cerebral palsy] and it can be misunderstood as showing favoritism or giving the privilege to one particular student (Teacher 3).

This can have negative impact on self-regulation that consists of social-emotional and cognitive dimensions of a student with additional needs. Consequently, teachers often ignore the challenges these gifted students with cerebral palsy are facing. Eventually, the students may lose their motivation to learn and become underachievers. They may even want to isolate themselves from the peers due to their challenging social communication. At the same time, the teachers said that 'A student may be accepted as gifted, but because of human emotion-sorrow the teachers are feeling towards them. It seems other teachers can't believe that a student with special needs can be so witty' (Teacher 2). As a result, even being aware of child's giftedness, teachers still forget about a child's talents and focus more on challenges. What this finding suggests is non-labeling of twice-exceptional

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students creates a healthier and more edifying learning atmosphere for all students. Actually, 'the twice exceptional students never like to be labeled because they want to be treated equally with other typical students' (Teacher 4). In other words, findings confirm that teachers are certain that non-labeling twice exceptional students paves the way for the best academic results.

### **Teacher perceptions of teaching twice-exceptional students**

#### **Teachers' identification of gifted learners**

Twelve school teachers for the gifted and talented were interviewed for the purpose of this study which scrutinizes the perceptions of teachers of a twice-exceptional student in their school. Four teachers, who participated in the focus group discussion, have the educational experience of teaching twice-exceptional students for five years. As stated in the collected data, five teachers are aware of twice-exceptional students attending their lessons. From teachers' perceptions on teaching twice-exceptional students, some teachers characterize gifted learners as students who have a good perspective to life. They are always positive and social. Conversely, 'some gifted students can be an introvert who are reserved and may not feel comfortable to associate with their peers-it is the basic sign of gifted students'(Teacher 8). In addition,

to perform well in group works, all students need to have constant communication with their peers. Gifted students may be too timid to communicate and this may result in poor academic results in peer works. To overcome gifted students' natural reticence, teachers purposely organize various group works or peer activities during their lessons (Teacher 4).

**Teachers' perceptions of twice-exceptional students**

Teacher 4 also emphasized that twice-exceptional students may be gifted but it may only be reflected in the subjects they 'love' (Teacher 4). One Participant discussed that the twice-exceptional student feels like a big fish in a small pond in Math and ICT. On the contrary, a big pond is the English and Russian languages where he feels himself like a little fish during these subjects where he is not confident and is challenged. As a Kazakh native speaker, he constantly feels challenged in Russian lessons and this challenge level increases twice as much when he is in English lessons. In this case, his Russian and English teachers propose the inclusive strategies first and develop his giftedness afterwards. They noted that:

We cannot identify whether his special needs or his giftedness that makes him hesitate to answer questions whereas the rest of the class have to spend much time waiting for his answer. Sometimes, we avoid asking for his opinions because he is unable to speak much. The only questions we asked are the ones that require giving facts, numbers or proper nouns (Teacher 7).

All teacher participants admitted that it was difficult to decide what exceptions should be developed first because one exception may hide another. Another significant finding was that most teachers are not conscious of the term twice-exceptional students. Teacher 5 guessed that 'twice-exceptional students means somebody who has two more disadvantages than others'(Teacher 5). That means if a teacher makes modifications to the task, then a teacher may acknowledge the term 'twice-exceptionality' as 'having two disabilities'.

The next interesting finding was that teachers highlighted 'various types of twice-exceptional students who may have various personalities; that may impact how they

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are perceived by their teachers'. They gave an example of a gifted learner with cerebral palsy that his personality was 'shy because he speaks slow'; as for a hyperactive learner, he has the personality of 'being rude'. They must be considered differently because they are unique and not 'the same'.

Furthermore, some teachers have the tendency to divide the students into 'people' and 'him' (Teacher 6). Teacher 6 also added that he could not make 'him' (his twice-exceptional student) to do different tasks while 'people' are doing the same task. In most cases, it causes the problem of miscommunication with peers in the classroom 'The student with cerebral palsy is bullied among his classmates because of his disability. The peers can perceive him as arrogant because he can appear to be anti-social, which can create tensions in class' (Teacher 7).

### **The teacher's choice of strategies to use for twice-exceptional students with cerebral palsy in the classroom**

According to the interviews, teachers prefer strategies such as problem-solving, differentiation, scaffolding, project works, SWOT 'strength, weaknesses, opportunities and threats' tables and modeling that motivate and give deeper knowledge to gifted learners while satisfying their other needs. At the same time, teachers noted using various educational theories like Gardner's Multiple Intelligences Classification and Bloom's Taxonomy to meet both giftedness and physical limitations. Furthermore, Teacher 3 in the interview explained that they accepted leveled tasks as strategies for gifted students with different backgrounds because, in most cases, gifted students can learn rapidly 'they can be engaged and concentrate in the lessons'. However, some teachers believe that differentiated strategies are the same as inclusive approaches 'Students learn differently, according to the lesson plans the teachers follow; leveled tasks are the best examples'

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(Teacher 12). Teachers admitted that sometimes they do modifications by giving students with special needs extra time or spare papers as an inclusive strategy. Similarly, the art teacher (Teacher 5) explained that when students were given a task to draw a portrait, instead of starting from 'the edges', a student with special needs painted from 'the middle' with a straight line.

Teacher 11 highlighted extra-curricular activities like ceramics, choreography and robotic clubs served as compensatory strategies that improve students' motor skills and mental health. At the same time, these activities 'develop a student's imagination and creativity' (Teacher 11).

In such lessons, twice-exceptional students are able to develop the areas where they are gifted while meeting the needs of their physical disability through exercising motor skills and giving a new breath to their imagination and spatial skills.

An unexpected finding of the case study is that Teachers 7,8 and 11 consider consulting the school psychiatrist about inclusive strategies that every teacher can use with twice-exceptional students; 'If teachers go to the psychiatrists for consultation, they can find the most suitable approach for twice-exceptional students' (Teacher 7). As a result, after the consultation, teachers can create groups taking into account other students' temperament, learning style and interest that can influence a more successful and systematic lesson. However, the results from interviews blatantly contradict observations of eight various subject lessons, where most teachers were not actually observed using any inclusive approaches in their lessons for students with cerebral palsy although there were modifications in some tasks, positive feedback, mixed grouping and differentiation of strategies used during observations. Consequently, the researcher concludes that teachers' personal opinion about twice exceptional-students impacts greatly on the application of



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strategies in class. In this case, teachers believe that the application mostly depends on the particular challenge twice-exceptional students face.

### **Teachers' narration of the Gifted Program**

The way teachers characterize the gifted program was questioned by the researcher during the case study, with the teachers' understanding of twice-exceptional students having a direct impact on their application of the program.

Firstly, teachers accept the gifted curriculum as an essential tool to measure students' thinking abilities and perception levels of educational objectives. Teacher 5 provided an example from the program with this situation. Teachers generally think that 'adaptation of the gifted curriculum for the needs of the twice-exceptional students is not necessary because the contents satisfy the needs of all students'.

Additionally, Teacher 5 does not consider the above-mentioned program as the curriculum for gifted students. She emphasized the fact that 'teachers play the significant role in identifying the aspects of curriculum for the gifted. This depends on teachers' skills how they use and apply the gifted curriculum' (Teacher 5).

Observations confirm that peer support and teacher support enable the application of the Gifted curriculum in class. It can be adapted by providing increased waiting times, picking up on keywords from the answers of the student with special needs, and assisting by giving prompts. However, Teacher 9 admitted that 'it was not always easy to have patience while interacting with a student who can only communicate with incomprehensible words while the speedy students have already shouted the answer' (Teacher 9). Therefore, the giftedness of a student is not appropriately met during the class time as the student is always needing additional support to meet the standards.

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Opinions of the gifted curriculum standards vary. The findings revealed that some teachers do not accept the program used at school as a Gifted curriculum because it is not 'officially declared' by official standards while others think this program is almost too overwhelming for students of this age because 'the content is similar to that of first year students of Universities, especially in STEM subjects'. The findings also prove that teachers' beliefs and expectations about twice-exceptional students generally do not influence the instructional choices teachers made, and teachers often unintentionally embed instructional strategies that are tailored for the student with cerebral palsy. While organizing conversations between peers and a teacher, it takes extra effort to converse leaving the rest of the class waiting. Some of these tailored strategies contradict the belief of Teacher 10: 'Gifted learners are precise and able to give complete answers to the questions and express their thoughts in written form'. However, the gifted students with cerebral palsy can hardly ever complete a full essay within the time limit because of their health conditions.

What this case can clarify is that the gifted curriculum is used in a completely different form depending upon teacher's beliefs and expectations. In most observations within this case study, the Gifted program is seldom used as intended, as it was misunderstood as 'one size fits all'. This common misconception is based on the idea that the twice-exceptional student may have low self-esteem when inclusive strategies are implemented in class (Teachers 7 and 9). In addition, teachers claimed that

If twice-exceptional students are facing challenges in any school subject, the gifted curriculum is unable to improve their academic performance as anticipated. In other words, the gifted curriculum cannot be effectively implemented unless all learning barriers of the additional needs students are removed (Teaches 7 and 9).

**Conclusion**

To conclude, the results revealed that identification of twice-exceptional students directly depends on the diagnosis of students with special needs. In this research, teachers' preference of not-labeling due to the belief of causing embarrassment to the students with special needs means that their real needs are perhaps being ignored. According to their comments, 'the waiting time' is the approach of the differentiation which they are practicing every day, which means majority are practicing some differentiation without having full professional knowledge and skills of other strategies that could be helpful. The following discussion chapter will address how these findings can be applied to the research of twice exceptionality in Kazakhstani context.

**Chapter 5: Discussion**

This section delves into perceptions, educational practice and support of twice-exceptional students in the participating school for gifted and talented in Kazakhstan through the lens of teachers. The researcher shares the analysis of teacher contribution to twice-exceptional students through research questions.

**Teachers' perceptions and experience of teaching twice-exceptional students**

The case study illustrates that most Kazakhstani teachers only have limited experience working with twice-exceptional students as only a small percentage of the students are granted the permission to enter a school for the gifted and talented. Teachers' perception of giftedness within the twice-exceptionality of this case study agrees with the findings of Stenberg, Jarvin and Grigorenko (2010) that giftedness as well as special needs is invisible and not generally identified in twice-exceptional learners.

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The finding on this case confirms Neilson's (2002) conclusion that learning barriers such as taking extra time to be able to give an answer can be overcome with practice and time. While twice-exceptional students are getting accustomed to increasing their speaking and writing speed, their peers begin to understand their speech and then feel comfortable socializing with these students. There are two-sides to this finding with the components of two types of constructivism – cognitive and social (Coleman, 2003). Cognitive constructivism is accomplished through perceiving, recognizing, conceiving and judging that twice-exceptional students should share the same equal rights as other students do. Social constructivism theory is embedded in this thesis finding through the socialization of twice-exceptional students into the school culture and life. Furthermore, 'waiting time' is one of the variables that can help the twice-exceptional students to become successful in acquiring high quality education and building relationships with peers (Coleman, 2003). As teachers accept 'waiting time' as one aspect of the Piaget's theory taught in a three level program of professional development, but they have a false assumption that 'waiting time' is not an inclusive strategy. This finding contradicts the authors Good and Brophy (2003) that state a 'waiting time' is an effective inclusive strategy that can be used by the teachers which is maintained through eye contact with the twice-exceptional students to get the answer in the classroom (Good & Brophy, 2003).

One of the inclusive approaches in successfully educating twice-exceptional students is the parent-teacher conference where all teaching members and administration get together to discuss experienced challenges and effective approaches that may be applied (Silverman, 2013). This previous research result was agreed upon the participants of this case study who underline similar subject teachers share their opinions on how to work and what assistance to offer to overcome learning barriers. Due to the fact that humanitarian

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and science subjects have similar barriers in learning, teachers mention to take up integrated learning or collaborative learning approaches to develop twice-exceptional students' special needs and giftedness.

The next finding that the teachers of case study mention is the social support of teachers and students that help twice-exceptional students to become confident in communication with the school community as well as in task commitment in group work. This consolidates with Coleman(2003) whose study has the same findings.

The third finding highlighted the structure of the classroom and curriculum which was also mentioned by Coleman (2003) which was reflected in the interviews of the participants. For example: Teacher 3 and 10 shared that the curriculum structure should not be adapted to the needs of twice-exceptional students. In addition, the finding of the case study consolidates with the idea of Bulgren, Deshler and Shumaker (1998) that the adaption of 'less is more' does not play a part in compiling their program, and teachers often opt for 'complexity' in order to support the giftedness of twice-exceptional students.

This result ties in well with previous studies such as Boetger and Reid (2011) as well as Silverman (2013) that concludes most gifted programs are designed for high achieving students. The participants mention it is not ideal to make any major modification of curriculum content and advise to use different leveled tasks to meet the needs of every student in the classroom. In that way, each teacher is responsible for the success of twice-exceptional students in the school. On the other hand, the finding constitutes teachers' acceptance in differentiating tasks into A, B and C levels as an inclusive approach to satisfy students' needs.

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Mentioned by Van Tessel Vaska (1998) and confirmed by participants' in this research, Giftedness is multidimensional. A similar conclusion was reached by Renzulla (2002) detailing that giftedness has three components - ability, task commitment and creativity. When comparing these results to those of older studies, it must be pointed out that the respondents highlighted that gifted learners stood out by demonstrating creativity in projects works and drawing pictures. Contrary to Renzulla (2002), the finding in this case finds that twice-exceptional learners get bored easily as they do not demonstrate commitment to the tasks.

### **Inclusive strategies to use with twice-exceptional students**

The third variable which Coleman (2003) mentions is the structure of pedagogy. All participants shared the inclusive strategies they use during their lessons to satisfy the needs of twice-exceptional students. Teaching and educating strategies are used by both teachers and parents. The combination of both strategies for twice-exceptional students are mainly based on Bloom's Taxonomy theory which indicates teachers' focus should be on the students' giftedness rather than disability. The components are: knowledge, comprehension, application, analysis, synthesis and evaluation (Bloom, 1956).

This case study illustrates Bloom taxonomy strategies that the teachers use such as differentiation by content, product and outcome. As for inclusive strategies, teachers suggest seeking psychiatrists' consultation, give extra waiting time to monitor and control, providing positive reinforcement and support from the school administration and peers. Teachers are aware of the fact that positive perception and knowledge about twice-exceptional students needs further development with support of the school community. This idea was supported by Reis et al. (2014), who called for collaborative partnerships. Another promising finding was that the place of professional training or

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experience in working with students with additional needs such as cerebral palsy was crucial for a teacher to start working in the inclusive classes, which was also stated by Omdal (2015). It is obligatory to have an experience working with additional needs students before teaching twice exceptional students otherwise twice-exceptional students may stay underrepresented (Omdal, 2015). The participants of the study stated that they were aware of the fact that they were working with at least one student with special needs. However, they confess that they are neglecting twice-exceptional students' special needs while teaching them, with misguided intention of protecting their emotions and preventing disturbance of in the classroom. This finding was supported by the research of Blaker and Bokas(2010), De Boer, Pijl and Minnaert (2011). The teachers of this case study were only neutrally disposed to inclusion of twice-exceptional students. In most cases, teachers were concerned with the extra time and effort they have to put in for the implementation of inclusive education within the gifted setting.

An additional finding shows the inclusion of twice-exceptional students strongly depends on the emotional strength they show because the students often explicitly deny their disability. Baum, Emerick, Herman and Dickson (1989) found that twice-exceptional students display the willingness and desire to study. However, the situation can considerably differ in reality without the proper supports in place.

Teacher and parent interviews, and lesson observations reveal the needs of twice-exceptional students are not always appropriately met because they believe that labeling twice-exceptional students can have a negative effect on the relationship of the students with others as well as in academic performance. This finding is affirmed by the researcher Shaimakhanova that 'teachers do not differentiate the activities in accordance with the unique needs of a gifted hyperactive child' (Shaimakhanova, 2016). Similarly to

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Reis (2014) and Shaimakhanova (2016), the findings on this case states that implementation of inclusive strategies in the classroom demotivates twice-exceptional student to study. They compare the component of giftedness of twice exceptional with inner strength that motivates twice-exceptional students to obtain high a quality education.

Respondents also believe that teacher's support plays a significant role as it was highlighted by Hamre and Pianta (2001). However, in line with the ideas of Olenchak (2015) it can be concluded that if teachers do not have the understanding of twice-exceptional students, support from teachers will be lacking. Unfortunately, all participants confessed their lack of awareness and basic understanding of the twice exceptional although they claimed to be open to learning and applying inclusive strategies in their classrooms. However, in current Kazakhstani institutions for teachers' professional development in inclusive education, courses in twice exceptional simply do not exist. Teachers and parents are fully aware of the urgent need to start effective trainings that equip highly qualified educators to work with learners with giftedness and identified challenges that may impact their success or mask their giftedness.

The lesson observations found some minor contradictions to teachers' responses in the interviews. In most lessons, the lesson structure consisted of explanation and questions. Although teachers organized pair work as well as group work, they are reluctant to challenge twice-exceptional students with higher order thinking questions as they consider it may be waste of time as they put greater focus on what the student finds challenging due to their disability. Thus, we can make the same conclusion as Shaimakhanova (2016) that, in practice, teachers often avoid motivating twice-exceptional students so that other students are not bothered.



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The structure of pedagogy does not only include teaching strategies, it also consists of extra-curricular activities taught at school. Teachers of the case study mentioned extra-curricular activities such as ceramics, choreography and robotic lessons as educating strategies and a means of socialization, developing imagination and remedial exercise that help to overcome difficulties with motor skills of a gifted learner with cerebral palsy.

The researchers Omdal (2015) and Rafalovich (2001) state that the development of twice-exceptional students directly depends on how parents accommodate the needs of their children. The finding of this case study agrees with Elenberg, Oswald, Swart and Kitching (2005) that trusting and collaborative relationships between teachers and parents can guarantee a promising outcomes. Teachers agreed that parents should have the major responsibility for the success of their twice-exceptional children. Finding effective ways to solve challenges is the main reason to include parents in meetings so they can openly discuss the strengths and weaknesses of their twice-exceptional children. Parents should be considered children's first teachers.

One of the most successful strategies in teaching twice-exceptional students mentioned is peer support. Teacher 5 underlines that pair or group work reflects positively on twice-exceptional students' emotion and social well-being. Teacher 7 mentioned that 'providing help' through other students and 'accepting help' by twice-exceptional students can establish a positive and healthy relationship between both. In addition, Barger (2009) explains that such approach is a practical way to further develop and support the talents of twice-exceptional students.

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### **The impact of labeling and non-identification of twice-exceptional students on the academic performance**

According to Rolison and Medway (1985), attitudes and expectations towards the students are often influenced by social opinion rather than observations (Rolison & Medway, 1985). Teacher 8 states it is crucial to prepare typical students by discussing barriers student of special needs may anticipate in learning and the importance of providing support, respect and understanding.

Past research suggests that applying a disability label results in lower expectations from teachers especially for those who are labeled as mentally retarded (Rolison & Medway, 1985; Thelen, Burns, & Christiansen, 2003). Similar to finding in Rolison et al., (1985) reported teachers' expectation of students with physical disability is significantly lower.

Moreover, most teachers in this research believe any type of label may lead to negative impressions and failure because it is automatically assumed that students' success is the result of teamwork or merely pure luck, and it has nothing to do with students' individual effort and capabilities. Thus, Teacher 4 thinks that the negative assumptions can seriously limit students' learning potential and confidence and ignore their giftedness exceptionality. Teacher 9 adds that labeling not only impacts upon academic results but gives way to the misperception that the students will not have a bright future because it may be believed that their success in academic endeavors is only a result of help from their peers or simply coincidence. This is confirmed by Draaisma (2009) who discusses how a negative label can initiate a complex of interaction between the label, the perception and students' awareness of special need. Therefore, teachers must be aware labeling may lead to inadvertent discrimination in classroom. This is also consistent with the past research (Georgiou, 1999; Graham & Weiner, 1986; Tollefson & Chen, 1988) labeling a student with a disorder or as a low-achieving student may influence teachers' behavior. Most teachers confess that labeling students learning disabled has more impact on teacher-student interactions than labeling them physically

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disabled. This finding is in agreement with the research of Gulling and Rucker (1997) that teachers had lower expectations for students with identified mental challenges.

Peculiar from other findings, this case study found out most teachers consider that the negative impact of labeling depended on exceptionalities. For example, if a twice-exceptional student is obviously gifted in a specific subject, there is no need to label or attract attention to their other exceptionality. However, if the student is not gifted in any subject, they should be labeled in order to receive support. This finding is closely related to the understanding and perception of labeling which Thelen, Burns, and Christiansen (2003) examined the effects of teacher expectations, specifically teacher perceptions of the labels. As a result, the effect of labeling on academic performance of twice-exceptional students depends on how teachers frame the label of exceptionalities.

### **Chapter 6: Conclusion and Implications**

The purpose of this qualitative study was to investigate teachers' perceptions and educational experiences with twice-exceptional students and the factors that influence the teachers' opinion about twice-exceptional students on the use of gifted curriculum in a school for the gifted and talented in south Kazakhstan. In this chapter, conclusions presented based on the analysis of collected data. This chapter also discusses the current study's limitations, recommendations for further research, and implications for theory, policy and practice.

The educational experience of twice-exceptional students is impacted by the level of public awareness and social beliefs. The topic of twice-exceptionality is a myth to Kazakhstani teachers because there is limited research and almost no credible information of twice-exceptionality in Kazakhstani context. In many contexts, inclusive education continues to be plagued by contradictions, controversies, dilemmas and anomalies (Makoello, 2014; Slee, 2018). The State Program for Development 2011-2020 is devoted

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to the unique goal of implementing inclusive education in mainstream schools. Due to this reason, serving gifted students who have being identified as twice-exceptional is an important topic to address and understand.

This research is on teachers' experience of working with a twice-exceptional student and how to support and implement the gifted curriculum. The major finding of this thesis is that there is considerable disagreement between teachers' perceptions of the phenomenon of twice-exceptionality and their current practice with twice-exceptional students. The interviews provided data on teachers' consciousness of their own role in teaching and educating gifted students other exceptionalities such as cerebral palsy. However, as lesson observations illustrate, teachers' perceptions and beliefs of twice-exceptional students do not match the approaches they are using to teach twice-exceptional students. The main reasons of such inconsistency are related to the teachers' either ignoring the disability or giving too much focus to it and failing to develop their giftedness. It implies that teachers can easily misdiagnose the exceptionalities of students because disabilities often mask the giftedness (Beckley,1998). Another finding demonstrates that positive school environment impacts the academic performance of twice-exceptional students. Teachers added that scaffolding pair or group work enhances the academic knowledge of twice-exceptional students. Although the recognition of the disability of gifted students by teachers is crucial in compiling the "marshrutni list<sup>2</sup>", labelling twice-exceptional students is not extremely important for the either academic and non-academic studies. Simirily to Omdal (2015) who explained 'individuals planning for and teaching students with twice exceptionalities requires specialized training in both gifted and special education' (p.246), case study teachers constitute that they would like to have a course in inclusive education embedded

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<sup>2</sup> marshrutni list- individual educational plan

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in the pedagogy of higher institution. Additionally, that case study findings support the previous international researches; however, in Kazakhstan, researches on the topic of teachers' educational experiences of teaching twice-exceptional students is scarce.

Thirdly, most teachers believe that they are accommodating the needs of gifted students with cerebral palsy within the differentiated approach during the lessons.

According to the teachers' perception, leveled tasks may replace the inclusive strategy because it is seen as differentiation. Additionally, like most Kazakhstani teachers, the participants of the case study are not professionally trained to acknowledge and meet diverse needs of twice-exceptional students in schools for the gifted and talented.

### **Recommendations and future research directions**

The basic research questions of this case study cast light on teachers' perception and beliefs on twice-exceptionality as the educational phenomenon and aspects of educational experience of a twice-exceptional student is discussed in this case study. The case study illustrated is a common situation around the world gifted students with additional needs are served in a different way from their peers in the same class.

Thus, future research may be further investigated in the following directions. Although research on the influence of teachers' understanding and beliefs on the use of gifted curriculum was previously conducted. It is only based on the gifted students with hyperactivity whereas the needs may vary in different settings. Therefore, the researcher may continue to investigate the impact of teachers' understanding about twice-exceptional students on the use of gifted curriculum. Secondly, the strategies of accommodating the needs of twice-exceptional students may assist successfully in providing guidance for implementing full inclusion in the mainstream schools as well as schools for gifted and talented students in the scope of the State Educational Program 2020. Above mentioned research directions will be beneficial to the school community, policy makers and society

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as a whole to provide equity in the Kazakhstani education. The families will benefit from appropriate accommodations and modifications for the needs of their children if policy makers and teachers are cognizant of planning and realizing supports needed to implement inclusive education programs. This research can contribute to future policy documents in Kazakhstan which currently have no mention of students who are experiencing twice-exceptionality.

### **Limitations of the study**

Although current study demonstrated some interesting findings about teaching twice-exceptional students and how teachers understand twice-exceptionality in the education system, this study has some limitations. The first limitation is that the study can not be generalized due to the shortage of time and limited number of participants, and the fact it was limited to one school for the gifted and talented. Secondly, there was imbalance between male and female respondents, which may lead to biased answers due to females' emotionality to accommodate twice-exceptional students. Females may be more inclined to support twice-exceptional students. Additionally, this research may have limitations in terms of honesty of participants' answers. Cresswell (2012) underlined that interviewees can give biased and limited answers however, it depends on the participant's nature and loyalty. Moreover, teachers may not have fully understood the term of twice-exceptionality in Kazakh language because there is not an equivalent word to denote all characteristics of twice exceptional students in Kazakhstan.

The third limitation of the study was the limited number of lessons to observe -twelve lessons are not enough to depict the full picture. It would have been better if each teacher was observed at least twice.

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Finally, I would like to express my interest to explore this topic further. As a teacher, I face problems when I feel incompetent to recognize twice-exceptional children in order to meet their needs. This research helped me to study this field of education thoroughly and to reflect on my own teaching practice. As a researcher, I have acquired new skills about how to conduct a qualitative study. I gained knowledge on the organization and conducting case study research. I realized that passion for research is necessary for the researcher. One of the most valuable things that can be confirmed through my research is that school and family always play the significant role in the future of a twice-exceptional student.

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## Appendix A

### INFORMED CONSENT FORM

#### Teacher Interview

**DESCRIPTION:** You are invited to participate in a research study on understanding the experience of teachers and a mother of working with gifted child with Cerebral Palsy. You will be asked to take part in the face-to-face semi-structured interview. The interview will be held at the locations appropriate to you. It will be audio taped. Then the audiotaped material of the interview will be transcribed and used only for research purposes. All collected information will be accessible to the researcher only. The information will be kept in the researcher's personal computer which is protected by a password.

**TIME INVOLVEMENT:** Your participation will take approximately 30 minutes.

**RISKS AND BENEFITS:** The risks associated with this study are the risks to be embarrassed during the interview. In this case the researcher guarantees you not to ask directly on questions which might embarrass you. The benefits are the generated knowledge of twice exceptionality in the context of inclusive education in Kazakhstan from this research.

**PARTICIPANT'S RIGHTS:** If you have read this form and have decided to participate, please keep in mind that your participation is voluntary, and you have the

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right to reject at any time without penalty or loss. 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:**

**Independent Contact:** If you are not satisfied with this study how it 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 at +7 7172 709359. You can also write an email to the NUGSE Research Committee at [gse\\_researchcommittee@nu.edu.kz](mailto: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: \_\_\_\_\_

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The extra copy of this signed and dated consent form is for you to keep.

### Қосымша А

#### ЗЕРТТЕУ ЖҰМЫСЫ КЕЛІСІМІНІҢ АҚПАРАТТЫҚ ФОРМАСЫ

Мұғаліммен сұхбат

**СИПАТТАМАСЫ:** Сізді мұғалімдердің ерекше қажеттілігі бар дарынды балалармен жұмыс жасау тәжірбиесін түсінуге арналған зерттеуге қатысуға шақырамыз. Сізден жеке-жеке жартылай құрылымдалған сұхбаттасуға қатысу сұралады. Сұхбат сізге сәйкес орындарда өткізіледі. Бұл дыбыстық жазба болады. Содан кейін әңгімелесудің аудио-материалдары аударылатын болады және тек зерттеу мақсаттарында ғана қолданылады. Барлық жиналған ақпарат тек зерттеушіге қол жетімді болады. Бұл ақпарат парольмен қорғалған зерттеушінің дербес компьютерінде сақталады.

**СҰХБАТ ҰЗАҚТЫҒЫ:** Сіздің қатысуыңыз шамамен 30 минут уақыт алады.

**ЗЕРТЕУДІҢ ТӘУЕКЕЛДІЛІГІ МЕН ПАЙДАСЫ:** Осы зерттеуге байланысты тәуекелдер сұхбаттасу кезінде ұятқа қалуы мүмкін тәуекелдер болып табылады. Бұл жағдайда зерттеуші сізді уайымдауы мүмкін сұрақтарға тікелей жауап бермеуге кепілдік береді. Бұл артықшылықтар Қазақстандағы инклюзивті білім беру контексінде екі ерекшелігі бар оқушылар туралы білімді қалыптастыру болып табылады.

**ҚАТЫСУШЫНЫҢ ҚҰҚЫҒЫ:** Егер сіз бұл форманы оқып шығып, қатысуға шешім қабылдасаңыз, онда қатысуыңызды ерікті түрде есте сақтаңыз және кез келген уақытта айыппұлсыз немесе шығынсыз бас тартуға құқығыңыз бар. Сіз нақты



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сұрақтарға жауап беруден бас тартуға құқығыңыз бар. Зерттеудің нәтижелері ғылыми немесе кәсіби кездесулерде немесе ғылыми журналдарда жариялануы мүмкін.

### БАЙЛАНЫС АҚПАРАТЫ:

Тәуелсіз байланыс: Егер сіз осы зерттеудің қаншалықты өткізілуіне қанағаттанбасаңыз немесе сізде қандай да бір алаңдаушылық, шағым немесе зерттеу туралы жалпы сұрақтар немесе қатысушы ретінде сіздің құқықтарыңыз болса, NUGSE зерттеу комитетіне хабарласыңыз, +7 7172 709359 телефонына хабарласыңыз. Сондай-ақ NUGSE Ғылыми Комитетіне [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz) электрондық поштасын жаза аласыз.

Осы зерттеуге қатысуға келіссеңіз, келісіміңізге қол қойыңыз.

- Берілген ақпаратты мұқият оқып алдым;
- Мені зерттеудің мақсаттары мен процедуралары туралы толық ақпарат берді;
- Жиналған деректер қалай пайдаланылатындығын және кез-келген құпия ақпаратты тек зерттеушілер көретінін және басқа ешкімге ашылмайтынын түсінемін;
- Зерттеуден кез-келген уақытта себеп берместен кетуге болатынымды түсінемін;
- Жоғарыда айтылғандарды толық біле отырып, мен өзімнің еркін ерік-жігеріммен осы зерттеуге қатысуға келісемін.

Қолы: \_\_\_\_\_ күні: \_\_\_\_\_

Қол қойылған және келісілген келісім формасының қосымша көшірмесі сіз үшін сақталады

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**Appendix B**

INFORMED CONSENT FORM

**Teacher Lesson observation**

**DESCRIPTION:** You are invited to participate in a research study on understanding the experience of teachers and families of working with gifted child with Cerebral Palsy. You will be asked to be observed during the lesson. The observed lesson will be written by the notes in the lesson observation protocol manually and it will be used only for research purposes. All collected information will be accessible to the researcher only. The information will be kept in the researcher's personal computer which is protected by a password. The information will be kept for 24 months after completion of the thesis and then all the information will be destroyed.

**TIME INVOLVEMENT:** The researcher will observe your class for about 45 minutes on two different occasions.

**RISKS AND BENEFITS:** There are no risks, as the researcher guarantees to use the lesson observation material only for the research purposes to get better understanding of the educational experiences of gifted student with Cerebral Palsy. The benefits are the generated knowledge of twice exceptionality in the context of inclusive education in Kazakhstan from this research. Your decision whether or not to participate in this study will

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not affect your employment. Data gathered during the observation will be anonymized and not linked directly back to you.

**PARTICIPANT'S RIGHTS:** If you have read this form and have decided to participate in this project, your participation will be voluntary and you have the right to reject the participation in the research.

**CONTACT INFORMATION:**

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 at +7 7172 709359. You can also write an email to the NUGSE Research Committee at [gse\\_researchcommittee@nu.edu.kz](mailto: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: \_\_\_\_\_

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The extra copy of this signed and dated consent form is for you to keep.

### **ЗЕРТТЕУ ЖҰМЫСЫ КЕЛІСІМІНІҢ АҚПАРАТТЫҚ ФОРМАСЫ**

#### **Мұғалім сабағын бақылау**

**СИПАТТАМАСЫ:** Сізді ерекше қажеттілігі бар дарынды балалармен жұмыс істейтін мұғалімдердің және отбасылардың тәжірибесін түсіну бойынша зерттеуге қатысуға шақырамыз. Сізден сабақ барысын бақылауға рұқсат сұралады. Бақылау барысы сабақ бақылау хаттамасында қолмен толтырылады және ол тек зерттеу мақсаттарында ғана қолданылатын болады. Барлық жиналған ақпарат тек зерттеушіге қол жетімді болады. Бұл ақпарат парольмен қорғалған зерттеушінің дербес компьютерінде сақталады. Зерттеу жұмысы аяқталғаннан кейін ақпарат 34 ай бойы сақталады, содан кейін барлық ақпарат жойылады.

**ҰЗАҚТЫҒЫ:** Зерттеуші әртүрлі жағдайларда екі рет 45 минутта сабақты бақылауы мүмкін.

**ТӘУЕКЕЛДЕР ЖӘНЕ ЗЕРТТЕУ ЖҰМЫСЫНДАҒЫ ТӘУЕКЕЛДЕР:** Тәуекелдер жоқ, себебі зерттеуші сабақ байқау материалын Церебральды сал ауруы бар дарынды оқушының оқу тәжірибесін жақсы түсіну үшін зерттеу мақсатымен ғана пайдалануға кепілдеме береді. Бұл артықшылықтар Қазақстандағы инклюзивті білім беру контекстінде екі ерекшелігі бар оқушылар туралы білімді қалыптастыру болып табылады. Бұл зерттеуге қатысу немесе қатыспау туралы шешім сіздің жұмысыңызға

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әсер етпейді. Байқау кезінде жиналған деректер анонимдік болады және тікелей сізбен байланыспайды.

**ҚАТЫСУШЫНЫҢ ҚҰҚЫҒЫ:** Егер сіз осы нысанды оқыған болсаңыз және осы жобаға қатысуға шешім қабылдасаңыз, онда сіздің қатысуыңыз ерікті болады және сіз зерттеуге қатысудан бас тартуға құқығыңыз бар.

### БАЙЛАНЫС АҚПАРАТЫ:

Тәуелсіз байланыс: Егер сіз осы зерттеу қалай жүргізіліп жатқандығына қанағаттанбасаңыз немесе сізде қандай да бір алаңдаушылық, шағым немесе зерттеу туралы жалпы сұрақтар немесе қатысушы ретінде сіздің құқықтарыңыз болса, NUGSE зерттеу комитетіне хабарласыңыз: +7 7172 709359 телефонына хабарласыңыз. Сондай-ақ NUGSE Ғылыми Комитетіне [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz) электрондық поштасын жаза аласыз. Осы зерттеуге қатысуға келіссеңіз, келісіміңізге қол қойыңыз.

- Берілген ақпаратты мұқият оқып алдым;
- Мені зерттеудің мақсаттары мен процедуралары туралы толық ақпарат берді;
- Жиналған деректер қалай пайдаланылатындығын және кез-келген құпия ақпаратты тек зерттеушілер көретінін және басқа ешкімге ашылмайтынын түсінемін;
- Зерттеуден кез-келген уақытта себеп берместен кетуге болатынымды түсінемін;
- Жоғарыда айтылғандарды толық біле отырып, мен өзімнің еркін ерік-жігеріммен осы зерттеуге қатысуға келісемін.

Қолы: \_\_\_\_\_ күні: \_\_\_\_\_

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### Appendix C

*(As respondents are Kazakh speakers, these materials are translated into kazakh only )*

#### Interview Guide

**Research title:** The influence of teacher's understandings and beliefs about twice exceptional children on the use of gifted curriculum

**Research questions:** How do the understandings of teachers' about twice exceptional student impact on the application of Gifted Program in Nazarbayev Intellectual School in the south of Kazakhstan?

Interview Questions:

1. How many years of teaching in the Gifted Curriculum do you have?
2. Are there any gifted students in your class? What measures are used to identify these students as gifted?
3. Are there any students with learning disabilities among gifted students in the classroom (challenging behavior, disability, etc.)?
4. Can you name several educational challenges for such learners?
5. What knowledge do you have about students with Cerebral Palsy?
6. What are the educational challenges for gifted students with Cerebral Palsy?
7. What inclusive strategies can be applied to satisfy such students' needs?
8. If these strategies are not applied, how can it influence on the academic achievements of gifted students with Cerebral Palsy?



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<p><b>Сұрақ:</b>Берген жауабыңызға сай келесі сұрақ туындап отыр. Сіз қажеттілік деп айтып кеткен едіңіз. Сіз өзіңіз <u>қажеттілік</u> деген категорияларға нені енгізер едіңіз?</p> <p><b>Жауап:</b> Қажеттілік деген кезде ол жерде балалардың ең бірінші ескерілетіні олардың <u>табиғаты, мінез құлқы, қызығушылығы, сонымен қатар олардың біз физикалық жасерекшелігіне қарай ерекшеліктерін де қажеттілікке алып отырамыз.</u></p>	<p>Additional needs students are characterized with various interests and physical peculiarities.</p>
<p><b>Сұрақ:</b> Менің білуімше Сіздің сыныбыңызда сал ауруымен ауыратын оқушы бар.</p> <p>Сал аурумен ауыратын балалардың дарынды балаларға арналған бағдарламаны игеруде қандай <u>қиындықтары</u> бар деп ойлайсыз? Тұспалдап айта аласыз ба?</p> <p><b>Жауап:</b> Жалпы алғаш S 1 біздің қабылданған кезде біздің барлығымыздың бойымызда қорқыныш болды, менің де және пән мұғалімдерінің де. Сол баланың диагнозымен алдын ала танысып, оған не қажеттілік туындауы мүмкін қандай қиындықтар туындауы мүмкін біз қандай көмек көрсетет аламыз деген сұрақты біз дәрігерлермен де, мағлұмат жинап, алдын ала дайын болуға тырыстық. Алғаш S 1 біз мектеге дайындаған кезде біздің түйгеніміз ол <u>өзінің мүгедектігіне, ауруына көңіл бөлгендігін қаламайтындығын,</u> басқа балалармен тең көргендігімізді, басқа бабалармен бірге жүргісі келетіндігін байқадық. Алғашқы уақытта әрине S 1 қиын болды өйткені бұрынғы мектепте ол <u>үйден оқыған болатын,</u> ал енді бізде сегіз сабақ оның үстіне <u>қосымша сабақтар жүктемелер</u> басқа да үйірмелер ді де қамтуға тырысып жүрді ол. Алғашқы уақытта әлсіздік танытып, <u>шамалы терлеп, еңтігу дегендер</u> байқалып жүрді. Біз соған байланысты оған түстен кейін оны босатуға тырысып отырдық. Бірақ, ол тырмысып, қазіргі уақытта балалармен футбол ойнаған кезді қарап отырушы болса, қазір балалармен бірге футбол ойнап жүр. Сабақтың уақытнда онда жазу өте қиындық туғызатын, Ол бұрын <u>мүлде жаза алмаған.</u> Мұғалімдер оның жазба жұмыстарын тексеруге де өте қиындық туғызды, оны түсіне алмай жататын, қазір әңгімесін тұрақты, жүйелі жеткізе алатын жағдайға жетті және сөйлеген кезде аяқ қолының қозғалысын басқару қиындығы болды, қатты қиналып кететін, өзіне жүк түсетін, салмақ түсетін, оны да бірте бірте жеңіп келе жатыр. Қазір ойын еркін жеткізе алады. Оқушылар да мұғалімдер де оның табиғатына бейімделіп, оған тек бар қажеті жазу сөйлеу уақытында сабырлықпен күтуді, қосымша уақыт беруді ғана шамалы қажет етеді, ал қалған уақытта барлық балалармен бірге жүріп, өзін басқа балалармен қатар үлкен өмірге бейімдеп жатыр.</p>	<p>Challenges</p> <p>Although they are spiritually and psychologically strong to attend classes independently, they were at home schooling.</p> <p>Physical difficulties</p> <p>Additional need students couldn't write at all before.</p>



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<p><b>Сұрақ:</b> Осы қиындықтарды мұғалімдер тарапынан жеңуге көмек болды ма қалай жеңді? <u>Куратор және психолог</u> тарапынан ше?</p> <p><b>Жауап:</b> S 1 алғашқы мектепке қабылданған жылы 7 сыныпта бізде мектеп директоран бастап, мектеп әкімшілігі, мектеп психологы, мектеп дәрігері және пән мұғалімдері бізде жиі жүйелі түрде ақылдасып, <u>кеңесіп отырамыз</u>. S 1 бойында өзгерістерді талқылап оған қандай көмек қажет болып жатыр, қай жағынан көмектесе аламыз деген сияқты көптеген <u>талқылаулар жүргізіліп</u> отыратын, ол тұрақты жүйелі түрде жүргізіліп отырды. 8 сыныпта да бірнеше рет оны қарастырған болатынбыз. Алдағы уақытта мұғалімдердің бойында қорқыныш болды, денсаулығына зиян келтіріп алады ма деген. S1 өзінің бойындағы жігерін ынтасын көргеннен кейін <u>мұғалімдер оған қолдау</u> көрсетуге тырысты Біз мұғалімдердің де оған берген <u>қолдауы</u>, сабақтың үстінде беріп отырған <u>мотивациясы</u>, оған деген сенім артуы да үлкен көмек көрсетті. Жанағыдай оған қажет болған қажеттілік тек ол <u>қосымша уақыт</u> қажет етіп отырды. Мұғалімдер сол өздерінің уақытын бөліп отырды. Қазіргі биыл 9 сыныпта қосымша уақытты талап етпейді сұрамайды. Оқушылармен бір уақытта үлгеріп отырады.</p>	<p>The inclusive strategy is the consult with the school psychologist</p> <p>We motivate typical peers to respect additional needs students.</p> <p>Teachers should always inspire and encourage twice-exceptional students and they need extra time to finish exercises.</p>
<p><b>Сұрақ:</b> Сіздің ойыңыздан берген пікіріңізден туындайтын тағы бір сұрақ: Жасалған жиналыстың қортындысы ретінде S 1 байланысты мектеп көлемінде белгілі бір құжаттар болмаса айтылған ой пікірлер болмасын, қабылданған қаулылар бойынша бірден бір жүзеге асқан <u>құжаттар</u> шығарылды ма, жазылды ма?</p> <p><b>Жауап:</b> Жиналыстың хаттамалары бар, эээ ррр <u>хаттамалар</u> мен арқылы жазылып, мен арқылы бекітілген және сол жиналыстар барысында тағы да бір көмек ретінде <u>мектептің көлігі</u> қарастырылды, S 1 қатынауына, өйткені тайғақ күндері, күн суық күндері ол қиындық тудырады S 1 жолдан өту несіне. Сондықтан ол да қарастырылды. Мектепте Дидардың қолданылысына лифті де ұсынылып отыр. Сондай қажеттіліктер көмек ретінде қарастырылып отыр және мүмкіндігінше материалдық жағынана да қарастырып отыруға тырысады мектеп, енді айтарлықтай көмек болмаса да жылыны бір екі рет ең болмаса оның аяқ киімі болсын, қолында ұстайтын ручкасы болсын, мектеп қарасытруға тырысады, өйткені оның ерекшелігіне байланысты оның аяқ киімі де ручкасы да арнайы заказбен жасалынып отырады.</p>	<p>School policy should be evolved to support twice exceptional learners.</p> <p>Minutes of meetings are considered as a policy document</p>
<p><b>Сұрақ:</b> Ерекше қажеттілік бар дарынды <u>оқушыларды белгі беру олардың академиялық көрсеткішіне қалай әсер етеді деп ойлайсыз?</u></p> <p><b>Жауап:</b> Менің өзімнің <u>тәжірбиемде тек S 1 ғана жұмыс жасағандықтан, мен тек S 1 пікірін жеткізе аламын</u>. Ол жалпылама жұмыстарлды жекелеп алғанды қаламайды, бірақ өзінің ерекшелігін атап өткен</p>	<p>The influence of labeling on the academic performance</p> <p>I have just experienced</p>

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<p>жерде, еш қарсылық білдірмейді. Бізде оны әрдайым оқушылардың арасында да айтып отырамыз. Оның жігерлігін үлгі ретінде, оның еңбеккештігін айтып отырамыз. Ол одан ешқандай кері әсер алып, кері пікір білдірмейді. Өткенде информатика пәнінен ол жоба жасап жатыр,. Сол жобасына байланысты телеарналардан сұхбат алып, түсірілімдер болды, Сол кезде оның денсаулығына байланысты ерекшелігі бар екендігі аталып өтетіндеге ескертілдію Ол жерде де ешқандай қарсылық не білдірген жоқ. Ол өзіндей балалардың алдағы уақытта ынта мотивация алып жұмыс жасағанын қалайтын сияқты. <u>Дегенмен сабақта қажеты жоқ</u> Сондықтан ол өзінің ерекшелігін атағаннан намыстанбай, сол қиындықтың жеңе білгенін басқалар да білгенін қалайтын сияқты. Ол информатика саласынан жасап жатқан жобасында сал ауруымен ауытратын балаларға арналған тренажерлар дамуына үлес қосатын жабдықтар жасап жатыр 3Д вариантын қарастырып жатыр. Сондықтан бұл оған ешқандай кері әсер етіп жатқан жоқ. <u>Оның ерекшелігін ескеріп көмек көрсетілген жағдайда, оны қайта түсініп, алғысын білдіріп, әрі қарай нтиже шығаруға тырысып жатады.</u></p>	<p>working with only a student with additional needs that's why twice-exceptonal student feels ok when we label him in our meetings. I think he understands we need it for identification of his challenges.</p> <p>They like to repeat the task to succeed. But labeling influences negatively in the teaching process</p>
<p><b>Сұрақ:</b> Ерекше қажеттілігі бар баланы басқа балалармен әлеуеттенуі үшін қандай іс шараларды мысал келтіре аласыз? <b>Жауап:</b> S 1 алғаш сыныпқа келген кезде S 1 бөлек біз оқушылармен көп әңгіме жүргізіп жүрдім. Ондағы мақсатым S 1 сол қалпында қабылдау болатын. Оның ерекшелігіне баса назар аударып, <u>не болмаса күліп қарау, білмеу қалып күліп жіберу деген секілді жағдай болмас үшін онымен сөйлесуден қашу деген жағдай болмас үшін мен алдын ала көптеген әңгіме жүргізіп жүрдім</u> және соған байланысты оның ерекшеліктерін S 1 бірге қабылдауына таңғы жиындарда снып сағаттарында ерекше балалардың жетір отврған жетстуктеріне тоқталып, видео роликтер көрсетіп, оны ары қарай талқылап, пікірлерін тыңдап отырдық. Сонымен қатар жоғарғы сынип оқушылары олар кіші сыныпқа қарағанда жақсы мен жаманды айыра алатын, ненің оң ненің теріс екенін біле алатын болғанды S1 толыққанды азамат екенін сезінуіне өз үлестерін қосып отырды</p>	<p>To avoid embarrassing situations, we have discussions with other peers and try to socialize twice-exceptional students into the school community</p>
<p><b>Сұрақ:</b> Ерекшелігі бар балаларға S 1 әлде де болса қандай көмек керек деп ойлайсыз? <b>Жауап:</b> Қазіргі уақытта жүргізіліп жатқан жұмыстарға өзім қанағаттанамын. Өзім S 1 дамуына үлес қосу мақсатында оны қыш үйірмесіне, сурет салу үйірмелеріне жіберіп отырамыз. Оның қолдарының жұмыс жасауы жақсарса, жазуы жақсарса деп, одан бөлек мектептің хареографтары бөлек , бос уақытында онымен бірге денсаулығына пайдалы физикалық жаттығулар жасап отырады. Ол да оған көмегін тигізіп жатыр. Егер оған сабақтың барысында көбірек уақыт керек болып, қосымша сабақ керек болып жатса, мұғалімдер міндетті түрде оған уақытын бөліп отырады. Және S 1 ерекшелігі технологияға өте қатты</p>	<p>It is important to persuade twice-exceptional students to a bright future</p>

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<p>қызығады. Бала кезінен қызығушылығы сол салаға бекітілген және жазуында қиындық туындағанымен компьютерде 100 пайыз жұмыс жасай алады. Сол ерекшелігін аңғарып информатикадан мұғалім қолдау көрсетіп әрі қарай жұмыс жасап жатыр. Алдағы уақытта балалардың өзін толыққанды азамат сезініп кетуі үшін <u>ең бастысы барлық балалармен тең көріп, оның да жарқын болашақ өмір сүру үшін сендіру деп ойлаймын.</u></p>	
<p><b>Сұрақ:</b> Сыртқы жиынтық бағалау барысында балаға <u>қандай инклюзивты көмек көрсетіледі?</u> <b>Жауап:</b> Жазба жұмыстарында мұғалімдер қосымша уақыт беріп отырды. Жазба жұмысы үшін қолданылатын парақтардың көп болуы ескеріліп отырды және әжетханаға баруында да қиналатынбыз бірақ қазір барлығында өзі үлгеріп жатыр себебі жазылуында да жақсарулар бар, бір жүйеге келді.</p>	<p>Extra time or waiting time is used as an inclusive approach during Summative Assessments per Unit</p>
<p>Сұхбатыңызға көп рахмет</p>	

## С қосымшасы

### Сұхбат нұсқаулығы

**Зерттеу тақырыбы:** Мұғалімдердің екі ерекшелігі бар (дарындылық+қажеттілік) оқушылар туралы түсініктері мен наным-сенімдерінің Дарынды балаларды оқытуға арналған бағдарламасын қолдануға жасайтын әсері.

**Зерттеу сұрақтары:** Қазақстанның оңтүстігіндегі Назарбаев Зияткерлік мектебіндегі мұғалімдердің екі рет ерекше оқушы туралы түсінігі және наным – сенімі дарынды бағдарламаны қолдануға қалай әсер етеді?

### Сұрақтар:

1. Сіздің Дарынды балаларды оқыту бағдарламасы бойынша оқушыларды оқытып жүргеніңізге қанша уақыт болды?
2. Сіздің сыныпта дарынды оқушылар бар ма? Оларды қалай анықтайсыз?
3. Сыныптағы дарынды оқушылар арасында білім алу мүмкіндіктері шектеулі студенттер бар ма (қиын мінез-құлық, мүгедектік және т.б.)?
4. Осындай оқушыларға арналған бірнеше білім беру қиындықтарын атай аласыз ба?
5. Церебральді сал ауруы бар дарынды оқушыларға арналған білім берудің қиындықтары қандай?
6. Мұндай оқушылардың қажеттіліктерін қанағаттандыру үшін қандай инклюзивті стратегияларды қолдануға болады?
7. Егер осы стратегиялар қолданылмаса, онда ол дарынды Церебральды сал ауруы бар оқушылардың академиялық жетістіктеріне қалай әсер етуі мүмкін?
8. Сіздің ойыңызша, дарынды бағдарлама дегеніміз не?
9. Мүмкіндіктері шектеулі оқушыға қатысты дарынды бағдарламаны қалай жүргізуге болады?
10. Бұл жағдайдың дәлелі ретінде қандай жұмыс түрлерін айтуға болады?
11. Екі рет оқушыны таңбалау және таңбалау баланың академиялық көрсеткіштеріне қалай әсер етеді? Тәжірибеңіздің мысалдарын келтіріңіз.

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12. Сабақ жоспарын құрастырған кезде қандай ерекшеліктер қарастырылады? Дарындылық немесе мүгедектік. Мысалдар келтіріңіз.

### **Appendix D**

#### **Observation Protocols**

##### **Lesson Observation**

Main focus:

Teacher interaction with students interest, participation, engagement, achievements and frustrations during the lesson. Teacher's strategies to meet the needs of twice exceptionality of the gifted student with Cerebral Palsy

The overcoming the institutional, physical and social barriers (regarding to teacher's attitude towards child's giftedness and Cerebral Palsy)

The observation protocol will include a list of things I am looking for:

- ✓ Inclusion in all aspects of the lesson
- ✓ Has made adaptations/modifications were needed
- ✓ Promotes classroom expectations for learning
- ✓ Provides positive feedback
- ✓ Uses different teaching strategies to appeal to the needs/ learning style of the student
- ✓ Uses mixed grouping
- ✓ Clear expectations are set in terms of behavior
- ✓ Friendly encouraging voice and body language

## Қосымша D

### Бақылау хаттамалары

#### Сабақты бақылау

Негізгі назар:

Мұғалім мен оқушылардың өзара қарым-қатынасы. Сабақ барысында балалардың қызығушылығы, қатысуы, қатыспауы, жетістіктері мен кемшіліктері. Дарынды баланың ерекше қажеттілігін қанағаттандыру үшін мұғалімнің қолданған стратегиясы. Бақылау парағы бойынша оқытудың мына тұстарына аса назар аударатын боламын:

- ✓ Қажетті әдіс тәсілдерге бейімдеу мен түрлендіру жасалады
- ✓ Оқытуда классқа қажетті өзгерістер жасалады
- ✓ Жағымды кері байланыс жасалады
- ✓ Оқушының қажеттілігіне, оқылым стильіне сай әртүрлі әдіс тәсілдерді қолданады
- ✓ Әртүрлі оқушы деңгейінен оқу тобы жасақталады
- ✓ Оқушының өзін өзі ұстауы жөнінде анық баяндалған
- ✓ Жылы қабақ және жылы сөйлеу байқалады

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## Қосымша С

## Бақылау хаттамалары

## Сабақты бақылау

## Негізгі назар:

Мұғалім мен оқушылардың өзара қарым-қатынасы. Сабақ барысында балалардың қызығушылығы, қатысуы, қатыспауы, жетістіктері мен кемшіліктері. Дарынды баланың ерекше қажеттілігін қанағаттандыру үшін мұғалімнің қолданған стратегиясы. Бақылау парағы бойынша оқытудың мына тұстарына аса назар аударатын боламын:

✓

Қажетті әдіс тәсілдерге бейімдеу мен түрлендіру жасалады —

✓ Оқытуда классқа қажетті өзгерістер жасалады —

✓ Жағымды кері байланыс жасалады ✓

✓ Оқушының қажеттілігіне, оқылым стилине сай әртүрлі әдіс тәсілдерді қолданады *қосымша уақыт и*

✓ Әртүрлі оқушы деңгейінен оқу тобы жасақталады

✓ Оқушының өзін өзі ұстауы жөнінде анық баяндалған

✓ Жылы қабақ және жылы сөйлеу байқалады



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