

Running head: TWICE EXCEPTIONALITY: A CASE STUDY OF GIFTED/ADHD
CHILD

Twice Exceptionality: A case study of educational experience of a gifted hyperactive child
through the perspective of the child, his teachers and his parent.

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Submitted in partial fulfillment of the requirements for the degree of

Master of Science

in

School Leadership

Nazarbayev University Graduate School of Education

June, 2016

Word count: 17 641

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- To grant approval for this study
- To grant approval for this study subject to minor changes, to be signed off by supervisor
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Approval: This approval is effective for the life of the study. However, any time you change any aspect of your project (e.g., recruitment process, administering materials, collecting data, gaining consent, and changing participants) you will need to submit a request for modification to the NUGSE Research Committee. Make sure to address all of the information requested on the request for modification form(s). Please be advised that in some circumstances, changes to the protocol may disqualify the project from approval.

Sincerely,

NUGSE Research Committee

Acknowledgement

I dedicate this thesis to my parents who played a great role in my development as a professional teacher and to my sister and her son who showed encouraged me during my writing of this thesis.

My special gratitude to my thesis supervisor Professor Rita Kasa and to NU GSE faculty staff including Deborah Brown, Alfred Burns, Philip Montgomery, Robyn Bantel and Kuralay Bozymbekova for their constant support and for the hard work they did to inspire me. My special thankfulness is to the students of 2-year program of Graduate School of Education for their true friendship and inspiration in our research way.

Finally, my deepest gratitude is to my participant of the study, a twice exceptional child, his mother and teachers for being the key factor of my interest in this research and their patience and willingness to be a part of my study.

Abstract

Key words: Twice Exceptionality, Giftedness, ADHD, Inclusive Education, Case study

The main focus of this study is to explore the phenomenon of twice exceptionality in one of Kazakhstani mainstream schools. One of the main educational strategies of the development of educational system in Kazakhstan till 2020 is connected with improving inclusive education in Kazakhstani mainstream schools. That is why the phenomenon of twice exceptionality is becoming a hot topic for both practitioners and researchers.

The purpose of the qualitative research is to explore the educational experience of a twice exceptional child identified as GADHD (gifted/ attention deficit hyperactivity disorder) studying in a mainstream school in Kazakhstan within the context of inclusive education.

The study is aimed to investigate the educational characteristics of a gifted hyperactive child through the perspectives of the child, his teachers and his parent.

Firstly, the study analyzed teachers' awareness of, attitudes about, and experience with twice exceptional children; and the ways how such children are usually identified. Secondly, the research investigated the effects of school and home environments on educational experience of a twice exceptional child followed by examining the inclusive education strategies to accommodate gifted hyperactive students' needs.

This study was based on a case study method of qualitative research approach. The main participants of the study were a twice exceptional primary school child and his mother, as well as two of his current teachers and one possibly future teacher, who were both interviewed and observed during the study.

The results of the study showed that twice exceptionality is a problem in Kazakhstani schools. It was concluded that educational experience of twice exceptional children in Kazakhstan depends on several factors and there are no universal strategies to accommodate the unique needs of gifted hyperactive children.

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Chapter 1. Introduction

This research is about educational experience of a gifted hyperactive child (or GADHD child) of a mainstream primary school in Kazakhstan which is analyzed through the perspectives of the child, his current and possibly future teachers and his parent. The research is highlighting the idea of educating gifted children with some other learning barriers, specifically for the study of Attention Deficit Hyperactivity Disorder, who are called Twice Exceptional Students in educational literature (Pfeiffer, 2008).

Giftedness has been considered as one of the most difficult topics in the development of global education. Sternberg (2011) discussed some of the main theories of giftedness throughout the history of educational experience in the world. Among those theories they highlighted the theories and concepts related to the IQ identification (Gallagher and Courtright, 1986, Robinson, 2005), and to other qualities of students (Gardner, 2006, Renzulli, 2009; Sternberg and Zhang, 1995).

On the other hand, Borland, the Professor at Teachers College, Columbia University advocates that giftedness is nothing but a “chimera” or a not real life concept which is more about social status of a student rather than intellectual or other abilities (Borland, 2005). As he explains categorizing students into gifted and non-gifted is not scientifically proven and that is why giftedness is a “myth rather than something real” (Borland, 2005, p.24). However, the researchers in the field of giftedness as well as practitioners try to identify gifted students among their peers by several criteria such as “the excellence criterion, the rarity criterion, the productivity criterion, the demonstrability criterion and the value criterion” (Sternberg et al, 2011).

The topic of giftedness is being researched from different angles. One of such angles is the studies on twice exceptionality, where the phenomenon of twice

exceptionality means possessing the characteristics of a gifted child along with having some other learning barriers (physical, emotional or social).

A more specific definition of a twice-exceptional child was provided in a research work of Wormald (2009):

Twice exceptional learners are students who give evidence of a potential for high achievement capability in areas such as specific academics, general intellectual ability, creativity; leadership; and/or visual, spatial, or performing arts and also give evidence of one or more disabilities; speech and language disorders; emotional/behavioural disorders; physical disabilities; autism spectrum; or other health impairments, such as ADHD. (p.19)

Research and policy on twice exceptional children is expanding globally, but it is yet to be explored in Kazakhstan. The researchers study different types of twice-exceptional learners. Gifted hyperactive children (GADHD) are being identified and researched more as the characteristic features of a regular gifted child resemble the features of a child who has attention deficit hyperactivity disorder in some cases. When a gifted student has a learning barrier such as ADHD, teachers as well as other educational stakeholders find it difficult to identify giftedness in a timely manner as ADHD masks the talents of a learner. As the result of late identification or non-identification of a gifted child may lead to inability of a gifted student to contribute the society (Sternberg, 2011). Vice-versa, as giftedness and attention deficit hyperactivity disorder can be characterized with the same set of features such as hyperactivity, impulsivity, or symptoms of inattention or boredom that learners possess, most of the students are misdiagnosed as being either gifted or having ADHD (Pfeiffer, 2008). However, there is possibility that the learner is a dual exceptional student who must be treated and educated differently than other gifted children or ADHD learners. Both giftedness and ADHD disorder could be considered as

learning barriers and in turn such erroneous perception may lead to failures in student's educational experience (Shavinina, as cited in Pfeiffer, 2008). That is why discussion of this issue is relevant for not only teachers, but also parents and other stakeholders such as teacher trainers, school leadership, psychologists, policy makers, and wider community.

Inclusive education can be considered as the best approach for educating GADHD learners as schools for exclusively gifted children cannot fully accommodate the learning challenges that such students face. Such learners also would be disadvantaged if their schooling is determined by their learning disability only. Their whole educational experience, including both academic and non-academic participation, can be negatively affected due to confusion in identifying their strengths and weaknesses properly. However, Kazakhstani mainstream schools can offer little on provision of appropriate inclusive education for such students.

Research Problem

Inclusive education is an important step in educational system change in Kazakhstan. Inclusive education is education for all, regardless any backgrounds (UNESCO, n.d.) . However, students are still excluded for a variety of factors concerning their physical, intellectual, emotional, social and other characteristics and (dis)abilities. They are placed into the special schools where students with similar characteristics are studying instead of being part of mainstream schooling. The phenomenon of twice exceptionality is not always taken into account while developing school programs or preparing educators to work with them in the context of mainstream school (Omdal, 2015). The lack of or limited knowledge of teachers and families leads to misdiagnosing or lack of identification of twice exceptional gifted hyperactive children taking into consideration either their strength or disorder. That is why, usually gifted hyperactive children are not accepting proper educational service at mainstream schools which can meet both

conditions of twice exceptional students, giftedness and hyperactivity, simultaneously.

Purpose of the study

The purpose of this qualitative study is to explore the educational experience of a twice-exceptional child identified as GADHD studying in a mainstream school in Kazakhstan within the context of inclusive education. It leads to investigating the following research questions.

Research questions

Central RQ: What are the characteristics of educational experience of a twice exceptional child in a general educational institution in Kazakhstan through perspectives of the child, his teachers and his parent?

Sub RQ1: What are teachers' awareness and perceptions, experience on twice exceptionals (Gifted students with ADHD) and the phenomenon of twice-exceptionality in Kazakhstan?

Sub RQ2: How does identifying a child as twice exceptional or the lack of such identification influence academic educational experience of a child?

Sub RQ3: How does identifying a child as twice exceptional or the lack of such identification influence educational experience of a child in the family?

Sub RQ4: What strategies can be used to improve providing inclusive education for twiceexceptional gifted children with attention deficit hyperactivity disorder?

Significance

The research is important for understanding teachers' awareness and perceptions of twice exceptionals. Teachers are the first and main professionals who the students meet with. Therefore, lack of or limited understanding of the phenomenon of twice exceptionals

by teachers may lead to negative academic and non-academic effects on twice exceptional students.

Moreover, this topic is not widely discussed among teachers and school community in Kazakhstani secondary schools.

Identifying giftedness and admitting other learning barriers like ADHD of students in early stages can contribute to the appropriate implementation of inclusive education at secondary schools in Kazakhstan. Different educational stakeholders may find this study valuable in the context of planning, organizing, implementing, developing, reflecting, monitoring and further improving secondary education in Kazakhstani mainstream schools. That is why, policy makers, educational community, teachers, psychologists, classroom teachers, school administration, parents and researchers in this field can find the research practically valuable.

Thesis outline

The introduction part provides the information on the research background of the topic, the problem and the purpose of the study, the list of research questions which will be discussed in the present chapter and mentions the significance of the study to the stakeholders and overall educational practice in inclusive education environment. The literature review chapter provides the information on overview of twice exceptionalty and the strategies how inclusive education is implemented for twice exceptional students. Methodology chapter describes how the case study approach is used for the purpose of this research. In the Findings chapter I will presents the analysis of the collected data of the research. It is followed by a chapter on discussions of the findings with reference to the literature on twice-exceptionality that will reveal the answers to the research questions. In the conclusion the limitations and findings' implications are provided together with

recommendations and strategies for better providing the inclusive education for twice-exceptional students in Kazakhstani mainstream schools. Finally the researcher reflects on the ways for further research on this topic.

Chapter 2. Literature Review

Introduction

Researchers across the globe are investigating the phenomenon of “twice-exceptionals” (Gallagher, 2002, Wellisch, 2012). According to Wellisch (2012) “twice-exceptionals” are gifted students who have some learning barriers or disabilities. This population of students struggles because either giftedness or other exceptionalities “mask each other” (Wellisch, 2012). It is important to mention that in most cases giftedness cannot be distinguished as other learning barriers hide the giftedness. However, if an impairment masks giftedness and the latter goes unacknowledged, this can result in negative future progress of the child’s education (Gallagher, 2002).

In the first part of this chapter, I will present the overview of twice-exceptionality focusing on giftedness and attention deficit hyperactivity disorder. The ways in which gifted hyperactive students are usually identified will be analyzed. In the second section, teachers’ awareness and perceptions of twice exceptional children and the educational experience of such children will be presented. This is necessary for my study because the analysis of twice exceptionality can help to deepen understanding if this phenomenon is acknowledged and treated appropriately by the educational environment. Thirdly, I will focus on how the needs of gifted hyperactive children are accommodated by analyzing the strategies which are used with twice exceptional children. It is important to me to find appropriate ways of improving the provision of the inclusive education to twice-exceptional gifted hyperactive children. Finally, overall limitations of this study and recommendations for further research will be presented.

Identification of twice exceptional gifted hyperactive children

This section provides information on the characteristics and specific features of twice-exceptional children who have both characteristics of giftedness and attention deficit hyperactivity disorder. The educational instruments and methods the teachers use in order to identify twice-exceptional students are analysed.

According to Hua, Shore and Makarova (2014) the characteristics of gifted students are, in most cases, reminiscent of the characteristics of students who have attention deficit hyperactivity disorder (ADHD). If the student shares both giftedness and ADHD characteristics he has "unique individual needs" (Hua et al., 2014 p.74) and such children can be called twice or dual exceptional gifted hyperactive students. Foley-Nicpon, Rickels, Assouline and Richards (2012) agree that gifted students with ADHD "face unique challenges" (p.221) explaining that even if gifted hyperactive students are recognized to be intellectually strong, they find academics challenging and, moreover, interaction with peers can be a struggle for them. This idea is supported by the research of Lee and Olenchak (2015) who state that there are similarities in behaviors of gifted children and children with ADHD, which are usually confused by most practitioners and teachers. That is why, when the child is sharing both characteristics, ADHD may be "over-diagnosed" while the potential of giftedness is, in most cases, "misdiagnosed" (p. 186). Thus, in order to understand twice exceptionality it is important to provide an overview each kind of exceptionality of a twice exceptional student separately.

First, giftedness is a strength which is usually hidden or not properly identified in a twice exceptional individual. Today, there are different interpretations of what giftedness is. For instance, according to Kokot (2011) a gifted child is one that is different from his/her peers because of his/her talents in special areas. Barger, in her research, identified gifted children as not being the same as talented or high-achieving ones (Barger, 2009). Baldwin

(2005) noted that the difference between gifted and talented children is that gifted children are usually distinguished by their academic achievements, while talented children are those who have exceptional achievements in different spheres like sports, arts and so on.

However, there are still hot debates on the phenomenon of giftedness. Researchers as well as educators suppose that giftedness takes its roots from the theory of multiple intelligences (Gardner, 1983), alongside other ideas on creativity and divergent thinking skills (Gallagher, 2002), and the seminal model of competing intelligences: neural, experiential or reflective, according to Perkins (1995).

Researchers all over the world explore the issue of giftedness from the perspectives of intelligences people have. Gardner (1986) as cited in Gallagher (2002) proposed different intelligences that people possess. Among them, he differentiated logical, mathematical, spatial, bodily kinesthetic, musical, interpersonal, and intrapersonal intelligences. Gardner explained that these kinds of intelligences lead to the development of different abilities. As a result, they turn out to make a person gifted in various aspects of life like music, arts, science, communication, leadership, and writing (Gallagher, 2002).

From a different perspective, there was a research study which revealed three main kinds of intelligences existing in the world. Perkins (1995) distinguished them as neural, experiential, and reflective intelligences. These kinds of intelligences give information on where giftedness may appear. Either by a genetic system/neural system, or through academic and non-academic knowledge, we gain while studying or at home/by experience. Moreover, giftedness can emerge because of “thinking strategies” we use or by reflection (Gallagher, 2002).

According to Spearman (1904), intelligence starts with a person’s mental ability, as he called it later, the G factor, which stands for general or common intellectual factor.

This factor measures the ability of people to think and consecutively assesses the level to what extent the person is gifted or not (Baldwin, 2005).

Researchers from South Africa, Kokot and Kruger (2011), identified that gifted students usually have common characteristic features such as the abilities to concentrate, to learn new things fast, to think critically and to solve intellectual tasks quickly. Besides, such students are usually perfectionists or emotionally sensitive. “Extreme curiosity and excellent memory” are their particular features (Kokot & Kruger, 2011, p. 235).

According to Renzulli (2000), a gifted child can be characterized by a three-ring conception of giftedness. Above average ability, task commitment and creativity are the main features of a gifted learner. These components cannot show that a learner is gifted if there is no interrelationship between them (Renzulli, 2000).

Apart from common characteristics gifted children usually possess, they also have common needs, because of which they are considered to be disadvantaged in some areas. From the academic side, gifted learners may experience reluctance to do tasks during the lesson, may even become lazy, and their perfectionism may cause problems with managing time. Such learners may be stubborn about their ideas without any wish to change their direction (Kokot, 2011). From the perspective of social relationships with peers, gifted learners are challenged in making good contacts with peers which can lead to over criticism or frustration about the things which do not go the way they wish (Kokot, 2011). As Hua et al.’s (2015) studies showed, gifted students share the characteristics of having poor attention due to boredom and being less challenged. At the same time, gifted students can be highly sensitive and preoccupied with their own ideas, which is not usually well accepted by other students and teachers (Hua et al., 2015).

Wellisch and Brown (2012) in their article about an intervention model for gifted children, found that gifted children “who do not achieve often” (p. 88) could be disadvantaged in their social interactions and level of motivation. Wellisch and Brown (2012) admit that giftedness is also a learning barrier. “Gifted and Misunderstood” is the notion that demonstrates giftedness as a learning barrier due to several reasons (Wellisch, 2012, p. 48). Such learners face difficulties in their communication with same-aged peers and their peers could misinterpret their behavior. As a result, it can lead to misunderstandings in the home environment. Moreover, teachers are often unresponsive to such children’s needs and the education system does not always support gifted students if they study with other students of average knowledge and level of abilities. Having been educated in such conditions, gifted learners can become “underachievers” in their society, which leads to the demotivation of gifted learners (Wellisch, 2012, p. 50).

In a different light, the proper identification of ADHD is also very important for twice-exceptional students. A number of researchers as well as school and medical practitioners are studying the topic of attention deficit hyperactivity disorder. According to the American Psychiatric Association (2013), ADHD children are usually characterised by inattention and hyperactive/impulsive behavior. These characteristics can vary from just having features of inattention or hyperactivity/impulsivity separately or having all the characteristics in combination. Lee and Olenchak (2015) highlighted this kind of disorder as "the diagnosis of the decade" explaining that attention deficit hyperactivity disorder is increasing its popularity among school children in recent years (p.186). According to Foley-Nicpon et al. (2012) children with ADHD have "significantly poorer social skills" than their non-ADHD peers (p.222). As such fact usually influences the self-esteem and self-concept of students identified with ADHD characteristics. As concluded in their research, the reason was directly connected to low social support for ADHD learners

(including Gifted /ADHD learners), the main resource of which was being the families of those students (Foley-Nipkon et al., 2012).

Attention deficit hyperactivity disorder which a child experiences is currently a challenge for not only the school and the student but also for the family and the whole society (Rafalovich, 2001). Researchers have suggested that inappropriate psychological and academic functioning can be the result of the existence of ADHD disorder, which influences both the student's academic experience at school and in the family (Riccio, Gonzalez and Hynd, 1994). Aguir, Eubig and Schantz (2012) acknowledged that genetics can play a role if a child has or does not have any type of attention deficit hyperactivity disorder. However, they did not deny that such kind of disorder can be caused by the environmental situation and the child's upbringing. As the researchers explained, the environment in which a child is raised directly influences that way the child behaves. This brings to light the fact that depending on the way the child is treated and brought up, he/she will respond accordingly. This is revealed in the research of Aguir et al. (2012).

Rafalovich (2001) while exploring the notion that ADHD is connected to the environment of a child, developed the idea that children having ADHD disorder are "driven by the moment" rather than "by words" (Rafalovich, 2001, p. 377). Parents and family situations influence whether ADHD children are able or unable to control themselves in any aspect of their life including their studies. The research revealed that contact with a child while doing some activities together and always offering encouragement to them was the most helpful way for parents to control the behavior of their ADHD children. Just talking to children either by reproaching or saying some words of wisdom was not so effective for children with that kind of disorder (Rafalovich, 2001).

As Ronskley-Pavia (2015) highlighted, twice exceptional students who have the characteristics of ADHD are mostly diagnosed only by their attention deficit hyperactivity

disorder, which leads to negative educational experiences. Thus, the features of increased anger, anxiety, depression, hyperactivity, low self-efficacy and feeling to failure become more vivid and prevent the educators from identifying their giftedness (Ronskley-Pavia, 2015).

Overall, teachers and other educational stakeholders use different ways and methods to identify whether a child shares the characteristics of giftedness and attention deficit hyperactivity disorder. That is why it is important to investigate teachers' awareness, perceptions and experience with twice-exceptional gifted hyperactive children.

Teachers' awareness, perceptions and experience with twice-exceptional children

During recent times, school practice in many countries shows that the number of twice exceptional gifted hyperactive students is increasing; therefore, teacher exposure and interaction with this kind of student is increasing. However, are the teachers aware of this fact? How do they perceive and what attitude do they have toward twice exceptional students?

Answering these questions, Omdal (2015) acknowledged that "individuals planning for and teaching students with twice exceptionalities need specialised training in both gifted and special education" (p. 246). He explained that practitioners not only at mainstream schools but at other levels of education do not always recognize whether they are working with twice exceptional students. The masking conditions of giftedness and ADHD which are usually confused by teachers lead practitioners to a gap in the appropriate identification of twice exceptionality. Because of this, students may end up cognitively handicapped and/or discriminated against in the context of educational opportunities. (Omdal, 2015).

Lee and Olenchak (2015) agreed that misdiagnosis of twice exceptionality appears when either the strength or the disability of a child "hides or masks other diagnosis" (p.188). Through their research, Lee and Olenchak found that 132 school teachers were not able to identify the giftedness of gifted hyperactive children, because "teacher's first impulse was toward pathology rather than talent" (p.188). Reis et al. (2014) supported the findings of Omdal and Lee and Olenchak saying that teachers perceptions on twice exceptionals depend on both "the depth of educator's understanding about giftedness and disabilities and their intersection" (p.218).

In contrast, Foley-Nicpon, Allmon, Sieck and Stinson (2011) stated that teachers' and other practitioners' lack of awareness of twice exceptionality could be the consequence of under-development of psycho-educational assessment tools for assessing the twice-exceptional profile. This statement was also supported by Omdal (2015) who said that the lack of specialized academic training and professional development in the sphere of twice exceptionality can be the reason why educators are not fully aware of this fact. However, Reis, Baum and Burke (2014) contradicted these ideas by noting that some teachers themselves are reluctant to accept the phenomenon of twice exceptionality in their practice at schools. They believe that if a child has some challenges or disabilities, there is no possibility that such child can be gifted (Reis et al., 2014).

Turk and Campbell (2002) analyzed case studies on gifted hyperactive students and came to the conclusion that usually it is not easy to meet either one of these needs of twice-exceptional students. Moreover, if the students share both characteristics then it becomes much more difficult for both teacher and student (Turk and Campbell, 2002). They explained that while gifted hyperactive students are misdiagnosed and, therefore, are not treated properly, the teachers' educational practice is also end up being challenging, as they are not able to find appropriate educational strategies and techniques to work with such

students. Overall, all the participants of such an educational process suffer because of this situation. To solve this problem, Kennedy, Higgins and Pierce (2002) suggested that collaborative partnership among teachers who are working with twice exceptional students become one of the main goals for schools. Working as one team, teachers who are experiencing educational practice with gifted students with other learning barriers would find it beneficial in terms of planning their work to deal with twice exceptional students' unique individual needs (Kennedy et al., 2002). A more recent study on teachers' experience with twice-exceptional children confirmed that a collaborative teaching culture plays a great role in developing integrated individualized plans for twice exceptional students to address students' strengths, academic needs and social and emotional needs (Baldwin, 2015). This researcher also emphasized that such plans need constant monitoring by all teachers which would lead to a flexible "continuous improvement cycle" of the program for twice exceptional students (p.223). Moreover, according to Zentall, Moon, Hall and Grskovic (2001), collaboration with parents is also vital for twice-exceptional students to be treated appropriately. The researchers noted that the teachers should constantly work with parents of twice exceptionals and make them aware that attention from parent side is important to their children (Zentall et al., 2001).

To conclude, we can see that teachers' attitudes towards twice-exceptional students vary from the facts of the misdiagnosing of such students to a deep awareness of their unique needs, which directly impact on the educational experience of gifted hyperactive children. The more thoroughly teachers are aware of the phenomenon of twice exceptionality the better effect it has on students' educational experience.

Educational experience of twice exceptional gifted children with attention deficit hyperactivity disorder

The educational experience of a twice exceptional child is not fully the same as the educational experience of only a gifted child or a child who just has a learning barrier. According to the results of research by Lee and Olenchak (2015) gifted hyperactive children have a similar educational experience in terms of intellectual ability with their gifted peers, but at the same time perform poorly in academic areas where they have a resemblance with their learning disabled peers.

As different research studies show, gifted hyperactive children face numerous challenges in their educational experience both at school and in the home environment (Turk and Campbell, 2002; Abramo, 2015; Lee and Olenchak, 2015; Baldwin et al., 2015).

Baldwin et al. (2015) revealed a list of challenges the gifted hyperactive child might experience at school. He related all these challenging conditions mainly to the consequences of inappropriate behaviour of twice exceptional children caused by attention deficit hyperactivity disorder. Problems with learning, with acquiring and developing different skills like reading, organization skills, observational skills, critical-thinking or problem-solving skills, low ability to concentrate and frequently losing attention or interest in a topic are some of the main possible indicators of a negative impact of twice exceptionality on a gifted hyperactive child (Baldwin et al., 2015). Lee and Olenchak (2015) agreed with their colleagues highlighting that one of the main challenges gifted hyperactive children usually face in their educational experience is the potential to be underachievers. They explained it using almost the same list of challenges presented in Baldwin's research. Lee and Olenchak (2015) also emphasized that the overall life happiness and satisfaction of gifted/ADHD students is much lower than their peers'. The reason for this is connected with the students' challenges in relationships with other peers,

teachers and at home, which lead to behaviour problems of twice exceptional students (Lee and Olenchak, 2015).

Examining this further, Chae, Kim and Noh (2003) acknowledged that gifted hyperactive children may be academic underachievers and, moreover, have problems with their peers. However, they are able to compensate these problems with their intellectual abilities (Chae et al., 2003). Reis et al. (2014) supported this idea by showing examples of how intellectual abilities of twice exceptional students positively influenced the development of students' creativity, artistic and leadership potential, which, as a result, became beneficial to the educational experience of a gifted hyperactive child (Reis et al., 2014).

The researchers do not deny that such combinations of twice exceptionality can have some advantages for a gifted hyperactive child. However, in order to lessen the negative sides of ADHD and to take advantage of giftedness, teachers, as well as parents, should be aware of the needs of such twice exceptional children. As already mentioned the awareness of twice exceptionality by teachers and parents places a crucial role in the educational experience of gifted hyperactive children (Omdal, 2015). Omdal (2015) as well as Abramo (2015) agreed that whether a twice exceptional child is successful or not depends on what kind of educational services are provided to gifted hyperactive children. The researchers came to the conclusion that twice exceptional students can benefit from inclusive educational opportunities in situations where practitioners work in collaboration and show constant support of such students taking into account both strong and weak sides of gifted hyperactive children (Omdal, 2015, Abramo, 2015). This idea is also supported by Kennedy et al. (2015) who state that collaborative partnerships help to better identify the profile of twice exceptional students. Further, this facilitates the educational experience of teachers of twice exceptional students and at the same time scaffolds the learning

experience of children themselves as the two sides of their personal needs are accommodated properly (Kennedy et al., 2015).

The home environment also plays a great role in students' experience as a twice exceptional child. Neumeister, Yssel and Burney (2013) reveal that primary caregivers play a vital role in the academic success of a twice exceptional child. If parents are able to recognize both the giftedness and learning barriers of their children and at the same time to acknowledge their responsibilities for fostering such children then the students will perform better in academic studies. At the same time, the parental support can help to raise the level of satisfaction in the students' lives and the potential to develop their talents more (Neumeister et al., 2013). Rafalovich (2001) highlighted that it is important for parents never to forget about their children's characteristics of attention deficit hyperactivity disorder as domestic management and control of ADHD of a child may develop self-regulation, time-management, responsibility and independence, which are useful for the whole life of a twice exceptional child. The researcher noted that parents should possess patience but still be strict with child's ADHD, moreover, parents should devote their time to educational lessons and conversations with their children in order to understand their needs and to be able to help them to overcome the educational and non-educational challenges their children might have (Rafalovich, 2001). Omdal (2015) further develops these ideas by analyzing the importance of the constant collaboration between school, a twice exceptional child and the child's family which can finally result in the academic and social success of a twice exceptional child.

Overall, the educational experience of twice exceptional students depends on both their school and family conditions. Thus, if some practitioners or parents find it difficult to work with gifted hyperactive children, researchers and experienced educators all over the

world suggest strategies to provide better conditions for the inclusive education of twice exceptional children.

Twice exceptionality in the context of inclusive education

Being aware of twice exceptionality and having properly identified gifted hyperactive students are not the only important parts of educating twice exceptional children. School and family of twice exceptionals must be ready to address the needs of such students effectively. This is one of the main tasks of inclusive education, the main purpose of which is to provide suitable education for all, regardless background (UNESCO, n.d.). Gifted hyperactive children are in the category of learners who require a special “dual-emphasis approach that focuses on strength and talents while supporting and addressing the disability” (Baldwin et al., 2015, p. 219). As researchers highlighted it is necessary to address both areas using different educational and instructional strategies in order to provide appropriate educational service to gifted hyperactive children (Baldwin et al., 2015).

Before Baldwin et al. (2015) started to explore the opportunities of a dual-emphasis approach which they call “whole-child approach” (p.219), the researchers Kennedy et al. (2002) and later Reis et al. (2014) studied this topic from the same perspectives. Kennedy et al. (2002) were concerned about collaborative partnerships of teachers who are teaching twice exceptionals. The researchers investigated that usually teachers do not have enough professional training or education on how to work with twice exceptionals. That is why this topic is becoming crucial in the academic learning experiences of twice exceptional students designed by their-teachers, even if teachers are not academically trained in the area of twice exceptionality they can still be able to address gifted hyperactive students' needs properly if they work in one big supportive team. The inclusion of twice exceptional students in general classrooms requires more collaborative work by teachers to achieve the

same goals of education, such as “to support one another, develop appropriate instructional plans, and differentiate instructions for the students with unique needs” (Kennedy et al., 2002, p. 37). Developing this idea, Reis et al. (2014) discussed that an individual educational plan for twice exceptional students or “an accommodation plan with goals and strategies” (p.223) can be the solution to inclusive education for gifted hyperactive children. As the researchers explained such kind of comprehensive educational plan should be developed in collaboration with policy makers, practitioners and researchers the main aim of whom will be to include objectives to develop students' talents as well as strategies to accommodate students' social and emotional needs (Reis et al., 2014).

A number of research studies revealed that not only collaboration and developing special educational plans would have a successful result in serving gifted hyperactive students, but just everyday classroom techniques and methods could also have a positive influence on the twice exceptional children's academic and non-academic development (Abramo, 2015, Barger, 2009, Lee and Olenchak, 2015, Omdal, 2015, Rafalovich, 2001, Turk and Campbell, 2002).

According to Rafalovich (2001) practitioners should not forget that the academic achievements of gifted hyperactive children directly depend not only on the school environment but also the home environment of a child. The researcher suggested that teachers should constantly negotiate and have contact with parents of twice exceptionals and scaffold them in how to respond to their children's unique needs in home conditions (Rafalovich, 2001). Turk and Campbell (2002) agreed with the recommendations of Rafalovich saying that gifted hyperactive students must have constant support from their parents in doing homework or just have emotional and social family support in order to be successful in their academic studies. Teachers should also play a role in setting a good relationship between parents and a child by providing a gifted hyperactive child with

projects or critical-thinking, problem-solving, enough challenging homework activities (Turk and Campbell, 2002). Abramo (2015) supported this idea by saying that gifted hyperactive children usually have low self-efficacy and self-regulation which result in their low abilities to manage their time and organize their work appropriately. However, adults who believe in twice exceptional students can “identify their talents, mitigate areas of challenge, and serve as a source of support” (p. 67).

Lee and Olenchak (2015) explained this homework approach by showing the facts that gifted hyperactive children prefer to be challenged and involved in higher-order creative thinking activities rather than just doing repetitive homework. Further to this, such kind of activities can help parents to establish a better relationship with their children. As parents are supposed to help in academics of their twice exceptional children at home they can become easily stressed by their children's hyperactivity and lose their patience. However, the homework which makes gifted hyperactive students be very interested in completing the tasks and finding extraordinary solutions lessens their hyperactivity and rises up their giftedness (Lee and Olenchak, 2015).

Abramo (2015) agrees that twice exceptional gifted hyperactive students are usually very good at problem solving and are able to “generate creative solutions and make connections between ideas that are seemingly unrelated” (p.63). That is why the researcher suggests challenging and motivating twice exceptional students also in the classroom. The researcher explains that gifted hyperactive children typically have strong task commitment if they are doing something meaningful to them. Therefore, they can spend a lot of time and energy in completing such challenging but creative activities (Abramo, 2015). As a result, teachers are able to encourage students' talents and to be sure that their attention deficit hyperactivity disorder is treated appropriately.

Several researchers in the sphere of giftedness state that gifted students with or without any disabilities should be encouraged by incentives as they require their talents to be noticed. Moreover, if the abilities of talented students are ignored it can lead to demotivation to study anything new. Thus, Barger (2009) and Omdal (2015) concluded that encouraging twice exceptional students' participation, pursuing their interests in an individualized, creativity-focused manner, and applying incentives to twice exceptional students have a positive impact on the development of their gifts and talents and on the control of their attention deficit hyperactivity disorder.

Another classroom strategy that also has a positive influence on the academic success of twice exceptionals is connected with organizing the interaction of twice exceptionals with other students in the classroom. As Barger (2009) explains the differentiation techniques and skillful grouping of the twice exceptional students in the classroom can be beneficial for not only gifted hyperactive children but also for their peers. Allowing twice exceptional students to help their peers who are not strong in some subjects can be an effective strategy which “maximize the potential of giftedness and provide opportunities to learn and advance each and every day” (p.161).

On the contrary, Abramo (2015) revealed that skillful grouping techniques can eliminate the differences between twice exceptional students and their non-twice-exceptional peers, so that it contributes to the personal relationship of gifted hyperactive students with their peers. Abramo (2015) highlights that twice exceptional students “deserve an environment that values and supports their individual needs and talents by utilizing strengths and supporting areas of challenge to meet their full potential” (p.67).

One more important intervention is connected with extra-curricular activities which can provide the twice exceptional students with both development of their academic and

non-academic talents and improvement of life-long skills such as self-regulation, time-management, communicative/social skills, attention, curiosity, organization and observation skills, critical thinking and problem-solving skills, creativity, leadership, and focused interests (Baldwin et al., 2015). As researchers observe, the development of gifted hyperactive students in these kind of skills is much lower than the development of skills in gifted only students. However, it could be the consequence of masking them by attention deficit hyperactivity disorder. That is why parents and teachers should support students in participating in different extra-curricular activities, clubs and sections in order to facilitate the development of those important skills of the twice exceptional children (Baldwin et al., 2015).

In summing up, we can conclude that appropriate interventions and techniques which are used both at school and at home of twice exceptional gifted hyperactive children can result in raising their academic experience at school and at home as well as bring beneficial outcomes for the students' social and emotional areas of life. As Reis et al. (2014) emphasized such interventions and techniques should be "tailored to the unique strengths and needs of the individual" (p.226). That means there are no universal ways of working with all gifted hyperactive children as all of them have individual path of development featuring both characteristics they possess, giftedness and hyperactivity. That is why, if some of the strategies can be successfully applied to positively impact with some gifted hyperactive children, they might have a negative impact on the development of other gifted hyperactive children.

Conclusion

To sum up, the phenomenon of twice exceptionality is widely researched all over the world. However, all the research studies reviewed above was conducted in the non-Kazakhstani primary and secondary mainstream schools where the school community is

more aware of the phenomenon of twice exceptionality. The inclusive education model of delivery at their schools differs from that of Kazakhstani mainstream schools. The field of inclusive education as well as the phenomenon of twice exceptionality are not fully researched in Kazakhstan yet; however, it is becoming a widely encountered problem by researchers and practitioners in Kazakhstani mainstream schools.

That is why the researcher finds it important to undertake the research in Kazakhstani context. The case study qualitative research design will show how the analyzed studies of the researchers across the globe could be addressed to the implementation of inclusive education in Kazakhstani mainstream schools. The researcher will see what areas of the practice with twice exceptional children have to be explored thoroughly.

Chapter 3. Methodology

Research design

The purpose of this qualitative study was to explore general educational experience of Inclusive Education in the context of a case study of a twice-exceptional child. The study examined the main central phenomena – giftedness and Attention Deficit Hyperactivity Disorder . The study was based on qualitative case study research design. Creswell (2014) explained that instrumental case study is used when there is “a specific issue with a case used to illustrate the issue”. The chosen research design included the interviews with teachers (from a mainstream school) on their knowledge and awareness of twice exceptionality. Secondly, the case study involved an observation of a twice exceptional 4th grade student. The observations were conducted both at school and at the student’s home. Also, the interview with the student's parent was conducted.

Research site and study participants

Research site. The research site for this study included the primary school inclusive classroom at a mainstream Kazakhstani school as well as the home of the twice exceptional child of this research. It was necessary because the researcher intended to explore educational experience of the child at school and how it was also followed through at home. The child is raised in a single-parent family by his (a mother). The student is a 10-year old boy who studies in the 4th grade.

As the research was concerned with the experience and perspectives of a young child and the sensitivity of the research subject, the research found it reasonable not to mention the location of the main participant’s family and the school he attends. Children living in the designated district are enrolled in this school. There are no special criteria or entrance examinations to be enrolled in that school. The school follows the state curriculum for Kazakhstani mainstream schools. Furthermore, it is important to note that

the child had been studying at that mainstream school from the 1st grade and had the same classroom teacher throughout those 4 years. There were 25 children in his class, 10 of them were males and the rest were female students.

Study participants. The participants of this study were chosen purposefully in order to explore the issues of twice exceptional students and inclusive education from various perspectives. The research found that purposeful sampling was a useful approach since it would help to investigate the central phenomenon of twice exceptionality thoroughly and deeply. As Cresswell (2014) noted such type of sampling is beneficial in terms of qualitative research design.

Taking into account the advantages of purposeful sampling the researcher chose a primary school student who shared the characteristics of a gifted hyperactive child expected to be the main subject of this case study. The child as well as the child's parent (a mother) participated in the research study both by being observed (a participant observation) and interviewed by the researcher. It was valuable for the research since it provided the researcher with more explicit account of the existence of twice exceptionality as well as helped to answer the research questions. As the family (a single-parent family) was considered to be a vulnerable group of participants, the researcher did not provide much information on research site to keep the identity of the family confidential and anonymous.

The case study was of a gifted hyperactive child Eldar. Eldar is a 10-year old boy, who lives with his mother and her extended family with his grandmother, aunts and uncles. Initially Eldar's mother had no idea that her child was gifted. She experienced her son's hyperactivity as a challenging part of upbringing process but tried to refer his behavior to his age. When Eldar entered the school his teachers were also mainly paying too much

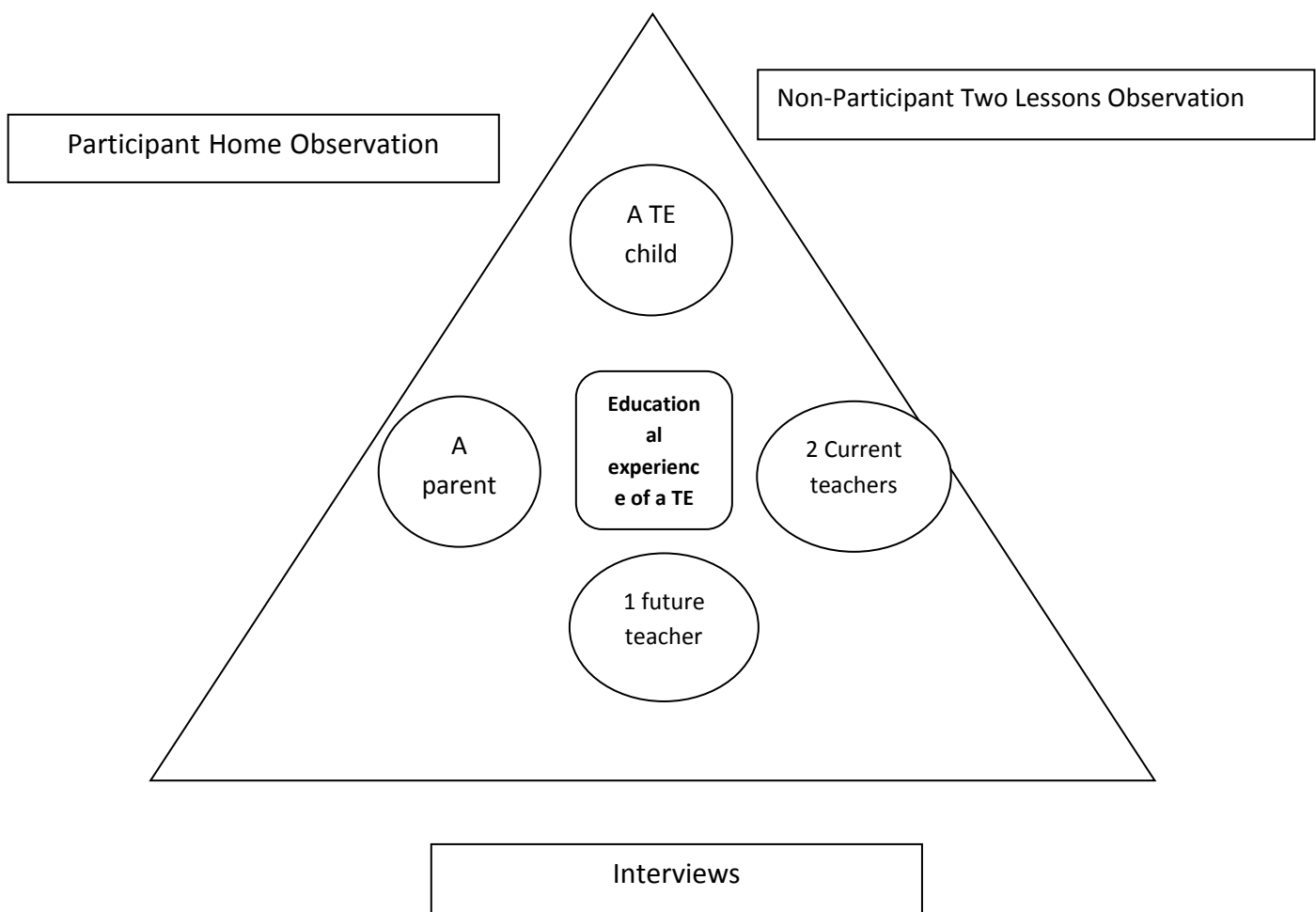
attention to his hyperactivity. At grade three of his primary school Eldar started to participate in different Olympiads on different academic subjects like Maths, Languages and so on. It turned out that he got the first place in several Olympiads among the students of his school and the other schools of this district. Apart from studies, the child is keen on playing chess, computer games and dancing. Eldar is also very good at drawing and his picture dedicated to the New Year celebration was nominated as the best picture of the school. The attention deficit hyperactivity disorder became a problem for the child when he finished his second grade at school and teachers started to complain about his behaviour. Eldar and his mother attended individual meetings with the school psychologist twice. The result of those meetings and trainings showed that a child had attention deficit hyperactivity disorder; however, it is not so severe to send a child to a special school for children with disruptive behaviour.

A second main participant of a study is the mother of the twice exceptional child. Eldar's mother is a single woman in her late thirties, who works at nine-to-five job. She tries to spend her free time with her only son assisting him in doing homework or enjoying his hobbies together.

The second group of participants in this study included three teachers of the school where the twice exceptional child studies. The first two teachers were the current teachers of the child: one of them was teaching almost all subjects and was the classroom teacher of the child during 4 years of Eldar's studies at primary school. The second teacher was the teacher of the second language subject, who has been teaching Eldar for two years. Those participants were valuable for the research as they had practical experience of working with the gifted hyperactive child.

The third participant from school is a teacher of the middle school who would probably teach the child in the future. The participation of the secondary school teacher was important for the research to see the future perspective of the educational experience of the case study twice exceptional child at secondary school. The teachers in the research were interviewed by the researcher. Moreover, one lesson of each teacher who the student in class was observed (a non-participant observation); the objective of the observation was to see the interaction between the teacher and the child during the lesson.

Table 1 Research participants and methods



Research Methods and Instruments

This section reveals the procedures and methods of data collection used for the study. Two types of instruments were used in the case study research. Both observations and interviews were used deliberately to investigate the research problem from various perspectives. Furthermore, the collected data from both instruments was triangulated in order to increase the validity and reliability of the results. Mathison (1998) described triangulation as an effective strategy which would “provide a rich and complex picture of a phenomenon being studied” (p. 15).

Initially, face-to-face semi-structured interviews were conducted with all the participants of the research separately. Prior to teachers' interviews, the researcher conducted a semi-structured face-to-face interview with the parent and the child in the presence of the parent. The main purpose of these interviews was to investigate the answers to the research questions from the perspective of a twice exceptional child and his parent. The face-to-face semi-structured interviews with teachers were held to provide the researcher with the evidence on the research questions from the teachers' experience and perceptions of the existence of twice-exceptionality at school.

In order to explore the central phenomena of giftedness and hyperactivity of twice-exceptional children the interview questions for all the participants included the following categories of questions:

1. Questions related to the general experience with, the awareness of and attitudes to twice-exceptionality from the participants' own perspectives;
2. Questions related to the identification of twice-exceptionality and its influence on educational experience of the twice-exceptional child at school and at home;

3. Questions related to inclusive strategies to accommodate the twice exceptional student's needs.

The researcher made a set of interview questions for each category of research questions. Once the interview questions were approved, they were translated into Russian to suit the language needs of the participants. Also the questions (Appendix B) were constructed in accordance with the age of participants simplifying them in the interview with a child. According to the agreed timing and site, the interviews with adult participants lasted for about 20-30 minutes, while the interview with the twice exceptional child was conducted in the presence of a parent for approximately 15 minutes. All the interviews were held only after the consent forms (Appendix A) were signed by the participants.

Furthermore, the researcher used observations. As Merriam (2015) explains observation “takes place in the setting where the phenomenon of interest naturally occurs” (p. 137) which helps the researcher to explore the research problem deeply and to contribute the understanding of the presence of twice-exceptionality at a mainstream school. I observed two lessons prior to the home observation. The main focus of the lesson observations was a teacher-student interaction; however, the teachers were not informed about the identity of the child. The first lesson I observed were the 40 minutes lessons of the literature. The second lesson was a non-traditional lesson in the form of concert dedicated to the celebration of Mother’s day. The duration of the lesson was about half an hour. While the first lesson gave me an opportunity to observe the twice exceptional child from the academic side, the second non-traditional lesson revealed the picture of non-academic social life of a child in the class and at school. The home observation took place on the day of the parent and child interviews. The main focus of home observation was also connected to the interaction of this child and his parent. The duration of home observation lasted for approximately 3.5 hours. I observed the case study child’s

educational experience at home, preparing homework, playing logical games and interacting with a parent.

The school and home observations were agreed with the participants beforehand and the participants were provided with consent forms for observations. The observation protocol was filled by the memory and field notes of the researcher taken during the observation. The home observation

Data Analysis

The interviews were firstly recorded on the recorder and then transcribed to word document. The recorded text of the interview (sample of an interview transcription in Appendix C) was coded in accordance with the common characteristics which were further identified by general themes. The field notes from the lesson observations and home observation were also transcribed, codified and labeled by the common themes for further analysis. The participants of the research were indicated by special unique codes (Teacher 1, Teacher 2 for current teacher of a twice-exceptional child; Teacher 3, Teacher 4 – for future middle school teachers of a twice-exceptional child; a parent, a twice-exceptional child (or a student/ a learner)). A table which indicated the participants, their quotes, codes and themes (in 4 different columns respectively) was formulated. Some information from the interviews and observation was translated into English in order to provide the research with necessary information for further analysis. The analysis of the data also included the triangulation of interviews of all the participants, the participant observation of the home educational experience of a child and the non-participant observations of two lessons of a child. It helped me to analyze the whole deep picture of the characteristics of educational experience of a twice exceptional gifted hyperactive child from different perspectives.

Ethics

After submitting the research proposal according to template provided by the NUGSE Research Committee, the study officially started. Research Approval Application Form included the purpose and the research questions of the study as well as research design and methods. Confidentiality and anonymity issues were also reflected in the ethical approval application form. NUGSE Research Committee granted approval for the research on condition of adding minor changes with supervisor's further approval.

Participation of a parent and a child was based on preliminary agreement. All participants involved in this study (a single-parent family with a twice-exceptional child and teachers of the school) were provided with sufficient information about the research. Each participant was provided with a Consent Form translated into Russian, which was developed under the direction of the research supervisor.

Once the participants showed interest in the study they were advised on all appropriate aspects of the study: the language suitable to participants' age, proposed timing for interviews and lessons, the anonymity and confidentiality of the information. All the participants were informed about the research benefits and risks. The confidentiality of the participants of the research was ensured by not mentioning the exact location of the research site, and by protecting the identity of the vulnerable group from the school.

All collected information was collated and kept only by the researcher. The information was stored in the researcher's personal computer which was protected by a password. Having analyzed the data, the researcher sent the information to the supervisor. The collected data was to be kept for a certain period of time in accordance with the research progress. Once research analysis and findings have been reported, the research sought to delete the data records. Finally, the confidentiality was ensured by not

mentioning the exact location of the research site and by deleting audio recordings of the interviews.

Conclusion

This chapter revealed the overall research design of the case study. The chosen research design and its instruments and operationalization allowed exploring the educational experience of a twice exceptional child at school and in the family. Moreover, I tried to examine the main central phenomena – Giftedness and Attention Deficit Hyperactivity Disorder through several qualitative research instruments (interviews, observations, and triangulation). The following chapter provides the results of the collected data on educational experience of a gifted hyperactive child studying in a mainstream primary school in Kazakhstan, which were analyzed through the perspectives of the child, his current and possibly future teachers and his parents.

Chapter 4. Findings

Introduction

The findings, displayed in this chapter, revealed five themes of twice exceptionalism:

1. teachers' awareness of, attitudes about, and classroom experience with twice exceptional children;
2. identification of twice exceptional students;
3. the effect of school environment on the educational experience of a twice exceptional child;
4. the effect of home environment on the educational experience of a twice exceptional child;
5. inclusive education strategies to accommodate twice exceptional children.

The main research question concerns the characteristics of educational experience of a twice exceptional child in one Kazakhstani mainstream school. This experience is analyzed through the perspectives of the child, his family and his teachers. The raw data sheds light on the five themes listed above. As findings showed, twice exceptionalism is a problem in Kazakhstani schools, but the topic has not yet been fully explored by the practitioners and researchers. Admitting the fact that a gifted child may have various learning barriers is challenging for school teachers. From the interviews conducted and case study observations, it can be concluded that it is very important to pay attention to how teachers perceive and experience twice exceptional children.

Teachers' awareness of, attitudes about, and classroom experience with twice exceptional children

Three mainstream schoolteachers were interviewed for the purpose of this research study. Two of these teachers taught a twice exceptional primary school child named Eldar. A third teacher was interviewed to see future educational experience of a gifted hyperactive child at the secondary school. According to the collected data, all three teachers were aware of fact that there are twice exceptional children who can be both gifted and hyperactive at the same time. All three teachers stated the fact that there might be gifted children with some learning barriers like ADHD (Attention deficit hyperactivity disorder) in each grade. That is why, “the main task of teachers is to identify the area of giftedness” (Teacher 1). However, they admitted that, “unfortunately, some teachers might think that a gifted and hyperactive child is a deviant behavior child” (Teacher 2). That is why, even being aware of children’s giftedness, they forget about the children's talents because of their inappropriate behavior (Teacher 3).

All of the teachers noted that such twice exceptional students may have some problems with their peers. Their relationships with peers is usually difficult and can result in some kind of stress. The teachers stated that gifted hyperactive children can be misunderstood by their peers. Their peers might perceive them to be lazy and reluctant to study. That is why, “other students sometimes avoid contact with a gifted hyperactive child” (Teacher 2), which leads to the problems of social communication of a student, and a decline in academic success. At the same time, the teachers said that gifted hyperactive children are not unfriendly, but they have fewer friends than other children do. In addition, teachers pointed out that even if they are hyperactive, “some of gifted hyperactive children are sometimes reserved and could even be shy” (Teacher 2).

The teachers in this study admitted that they have a big responsibility to provide appropriate service to gifted hyperactive children. Teacher 3 mentioned that the behavior of twice exceptional children is “not challenging, but difficult” (Teacher 3). That means if a teacher is able to find a suitable approach to working with such students, then they can deal with both of the students’ characteristics of giftedness and hyperactivity. Although teachers found it difficult to focus such students on task and to keep their attention (Teacher 2, 3), they admitted that “there is no bad student; there is only a bad teacher” (Teacher 1). If teacher accept the fact that they have this type of students then their educational experience will be less stressful. Both their strengths and disabilities will be taken into consideration by teachers. Speaking about teachers’ experience with twice exceptional children we should mention that the three teachers understood their role in teaching and educating gifted hyperactive children. As Teacher 2 noted “You have to put yourself in student’s shoes,” and in this case you will see how important it is to take into account both the giftedness of a child and his/her hyperactivity.

The teachers realized that working with gifted hyperactive children, sometimes they themselves were the reason why the twice exceptional children were becoming less successful in their studies. Teacher 3 explained that while trying to control the hyperactive behavior of her twice-exceptional students, she does not pay enough attention to the students’ interests and talents. Teacher 1 also added that gifted children like drawing during the lesson; however, drawing does not interfere with the understanding of the lesson. The teacher mentioned that drawing even helps the students “to better perceive lesson materials” (Teacher 1). However, such kind of individual features of twice exceptional students are not understood by all teachers, and they stop students from drawing and other activities during the lesson. As a result, some teachers confuse the characteristics of giftedness and attention deficit hyperactivity disorder, and either pay too

much attention and even reproach such twice-exceptional students or just ignore them. As Teacher 1 said, such attitude towards twice-exceptional students' needs "leads students to get offended" because of lack of attention.

What is really happening to twice exceptionals at school?

Eldar was a student of Teacher 1 for four years and of Teacher 2 for two years. From my interviews it appeared that the teachers knew how to work with the twice exceptionals very well. However, there is a great difference between what teachers told me in their interviews and what Eldar's mother reported about her child's experience at school. For example, the Teacher 1 said when Eldar is being too hyperactive and she reproaches him, he becomes demotivated. And she tries to redirect him to the task and increase his enthusiasm about the lesson. On the other hand, his mother believes that when the teacher reproaches or punishes him during the lesson the teacher did not accommodate his needs as a gifted child. Therefore, I observed Eldar in class with Teacher 1 in order to see if the information she had given me was trustworthy and she was not being too subjective. While I was observing Eldar in class, the teacher reproached him for not paying attention to her instructions to recite verbatim a fable. He was turning around in his seat asking the other students if they were ready. He appeared to be nervous because he was not fully ready to recite by heart. Her words were very abrupt and rude and seemed to de-motivate Eldar. While the other students were telling the fables, he did not appear to be listening to them. He was in his own world from the teacher's rudeness. The teacher asked the students to ask basic questions about the fable such as who is the main hero of the fable and the students continued asking basic questions. I saw that Eldar then began to be interested in asking questions, but he was hyperactive, and not like other students raising his hand. He was standing up in his seat and shouting his questions without permission. These questions, however, were critical thinking questions. They were why, how, and

what if questions—higher order questions; for example, what if the hero of the fable did not listen to his mother, what would happen to him? He also asked questions about alternative endings to the fable. The other students were not able to answer, and this annoyed the teacher. She thought that the lesson should continue due to lack of time and other students needed attention. The teacher remarked to Eldar that his questions did not follow her model of a good question. Actually, there were other gifted students in the classroom and were interested in Eldar's questions. This is why Eldar's mother was not positive about his school experience with this teacher. When I asked Eldar about his other teachers, he said that once Teacher 1 was not at school for a long time because she was ill, and there was a substitute teacher. That teacher, he said, was like his mother. When I asked what he meant, he said she did not criticize him when he was doing something different from other students. She was strict about his hyperactivity but she told him about the consequences and did not reproach him.

Thus, we can see the different angle of the teachers' experience with twice exceptional children from this case study. We will leave a case study for a moment to discuss the process of identification of twice exceptional gifted hyperactive children at a mainstream school in Kazakhstan.

As for the perceptions of teachers' attitudes of a child and his parent, we can see that there are some misunderstandings between the gifted hyperactive child and his current teachers. From the interview with Eldar's mother, it is obvious that teachers' experience with her son has some contradictions with the information provided in teachers' interviews. The parent agrees that the hyperactive behavior is challenging not only for teachers but also for the child's family. Nevertheless, the student's mother notes that sometimes teachers are not eager to find the suitable approach to such gifted hyperactive children. That is why the child's giftedness could be left without any attention from

teachers' side. Further this situation might lead to misunderstandings between teachers and parents. At the same time, the information provided by parents was proved through the observations of the lessons, where teachers were not enough focused on the gifted hyperactive child, or the teaching approaches they used did not make any contribution to the development of giftedness of a child, but were mostly oriented on controlling the hyperactive behavior of a child. However, the twice-exceptional child himself describes that usually teachers are very tactful and they explain the learning material very thoroughly. This helps his learning very much. Moreover, the child appreciates when a teacher praises him if he is doing a good job but at the same time controls the discipline and time-management of a child and facilitates the learning process. The child notes that when "teachers have a very good relationship with them like mothers do", all the children start learning better and with more responsibility and interest.

Identification of twice-exceptional students

The academic experience with gifted hyperactive children revealed that there are different ways of how such twice-exceptional students distinguished by school, by family and by the twice-exceptional students themselves.

First, the most important step, in identifying twice-exceptional students starts at school, where the gifted hyperactive students spend most of their working day. According to teachers' responses, "usually the twice-exceptional students' behavior is not the same as ordinary students have" (Teacher 1). The teachers note that their behavior is a little bit strange, but at the same time, "their way of thinking is really extraordinary" (Teacher 1), and they are able to "think critically while asking and answering questions on the topic" (Teacher 2). All teachers agree that teachers' main job is to identify what kind of giftedness a student has and help this student to develop his/her talents. From the described characteristic features of twice-exceptional children, both teachers and parents agree that

gifted hyperactive children could be too hyperactive in the very beginning, and it is very difficult to keep their attention for a long time. However, as the study respondents note twice-exceptional students are very concentrated during some activities they are keen on; for example, while drawing or any other favorite hobby of theirs; also, while solving some mathematical or logical tasks or group discussions, which require the critical thinking and problem solving skills.

Different teachers identify whether the student is gifted or not through various approaches. While some teachers pay attention to the academic achievements of a student like successful participation in subject Olympiads or other competitions, the other teachers base their opinions on students' progress during studies through formative and summative assessments. As all teachers mention identifying "in what specifically the students are gifted" is important to their future academic success (Teacher 1). Using different educational approaches and assessment techniques teachers find out the areas of students' giftedness. For example, as Teacher 3 mentions, she usually identifies whether the student is gifted or not through their writing papers like homework assignments, essays, etc. The teacher explains that "sometimes gifted students could be conserved and it is difficult to involve them into some classroom discussions" (Teacher 3). However, through the students' writing papers "a teacher is able to distinguish the giftedness of a child, as students express their thoughts and use the language skillfully" (Teacher 3), so the teacher adds that the gifted child is able to use critical thinking skills effectively in writing papers rather than in speaking activities.

Some teachers state that it is important to see whether the students is gifted and to address the needs of a gifted child as sometimes such students can be different from other students which leads to some academic and non-academic challenges in gifted child's educational experience at school. Taking into account this fact, teachers use various ways

of identifying giftedness of a twice-exceptional child and try to use different educational methods and techniques to “to develop the talents of twice-exceptional child appropriately” (Teacher 2).

On the other hand, the identification of other learning barriers like attention deficit hyperactivity disorder (ADHD) could also make some challenges for teachers. As teachers share about their experience with gifted children they say that even without ADHD the gifted child requires special attention from teacher during the lessons and extra-curricular activities. However, if a gifted child shares the characteristics of having attention deficit hyperactivity disorder it makes the teaching-learning process be more challenging for a child, his family and teachers. That is why, teachers recommend to identify any other learning barriers, especially ADHD of a gifted child in the very beginning, so that to be able to find better approaches how to work with a such twice exceptional student (Teachers 2, 3). As Teacher 1 highlights in this case “the collaboration of teachers and parents is a key factor to help the twice exceptional child to overcome any challenges in his educational experience without losing his giftedness and talents” (Teacher 1). The collaboration of teachers and parents is also related to some other school specialists like psychologists or a tutor of a child, who can also provide more detailed picture on the student's leaning barriers and the educational methods to address them in a skillful way.

Secondly, the identification of twice-exceptionality of a child at home environment plays a great role in a child's overall educational experience. The mother of a child considers that her child to be gifted basing her opinion on academic experience of a child at school. She adds that the child is quite active and successful in subject Olympiads he usually takes place. Eldar's mother also take into account the way her son does his homework. She explains that “usually it is not difficult for my son to complete the homework assignments, however, the main challenges in doing homework tasks are

connected with his hyperactive behavior” (Mother of a child). The mother's words were proved through the conducted observations at home where I was able to observe the way how the parent and a child were preparing for school. While the child was doing his homework with a great interest especially the activities which required to use critical thinking and other higher order thinking skills, the attention of a child was several times disturbed by different distractors. The child was distracted by playing games and also by the idea to spend some time with his cousins who came to visit him. However, as it was observed it was not difficult to the parent and other family members to make the child continue doing his homework if they were explaining him the importance of his studies and time management skills. The child understood that he is responsible for his studies and the importance of them for his future. As teachers mentioned in their interviews one of the attributes of giftedness is responsibility and understanding the importance of education, then we can state that the hyperactive child also shares the characteristics of giftedness in the home environment.

From the interview with a twice exceptional child and the home and school observations it is obvious that the child himself do not deny the fact of self-ascription to hyperactive children. However, Eldar tries to control his behavior where it is possible, so that not to worry his family and teachers. The child adds that he is eager to participate in different subject Olympiads or any other academic contests. At the same time he is keen on drawing, playing chess and dancing, and he is really good at these extra-curricular activities which was proved by observations. The twice-exceptional child admits that in order to be successful in his studies he needs much control or even strictness from his teachers and family members as it disciplines him, helps with time-management and self-regulation. As the twice-exceptional child shares the characteristics of being gifted and hyperactive, it was obvious from the observations that the case study child requires more

attention from both teachers and peers at school especially if the school activities are connected with developing and contributing the child's both academic and non-academic giftedness. The child understands that the better environment for him is when strict control and positive attitude towards his academic knowledge and skills, talents and creativity are balanced by his mother, family members and school.

Having analyzed the ways and methods how gifted hyperactive students are usually identified by school and home environment, we are going to return to our case study student to see how the identification or lack of identification of twice exceptionality may influence the academic and non-academic experience of a child at school and at home.

The effect of school environment on the twice exceptional child

The academic experience of Eldar can be described from various angles. The influence on academic educational experience of a twice-exceptional child can be observed by the benefits and challenges the child is experiencing in cases when the twice-exceptionality of a child is identified or there is lack of such identification. There were identified several categories which are applied to benefits and/or challenges the student faces during studies at school. Among them we can list time-management, various distractors, fears connected with focusing attention and interest, scaffolding and interaction.

As all teachers mention time-management is both beneficial and challenging to the case study student. Teacher 2 highlights that in order to focus student's attention the teachers usually try to give to gifted hyperactive students the more difficult tasks thinking that it will help the twice-exceptional students to be more concentrated on studies. However, as practice shows because of hyperactivity the students can lose their time and then find studies even stressful because of lack of time. The mother of the child also notes

that strict discipline towards doing everything on time facilitates Eldar's studies. Moreover, the child admits that being able to manage his time helps him in academic studies very much.

Secondly, it is important to mention that there are some distractors which makes the studies of the child challenging. If the teacher is not able to identify that a student is twice-exceptional it is difficult to distinguish the distractors the student has. Teachers 1 and 2 say that gifted hyperactive children are usually too active in the beginning of any activities, that is why a such twice-exceptional child is possible not to notice very simple mistakes, or fully understand the instructions to the tasks. Such things later influence on the accomplishment of the given tasks and activities and further appropriate knowledge gaining and skills acquiring.

A not less important challenge for the gifted hyperactive child is connected with fears the student has while studying. As Teacher 2 mentions gifted hyperactive children are easily get frustrated when there is not enough attention to them from teachers' or peers' side. Such situations lead to some fears of being ignored next time, so the gifted hyperactive students can just become conserved and do not participate during the lesson anymore. For this question, the twice-exceptional child himself confirms that the fear of being ignored or being punished for his misbehavior makes him feel not successful and therefore his academic achievements can decrease. From the conducted observations it is obvious that child understands teachers' attitude towards his attention deficit hyperactivity disorder and that is why finds it difficult to even speak in public.

On the other hand, there are some advantages of sharing the characteristics of both giftedness and hyperactivity. As the twice exceptional student needs constant attention from teachers, teachers try to facilitate and scaffold the studies of the twice exceptional

students. As Teacher 2 says finding appropriate teaching methods is important. So teachers try to constantly help and scaffold the studies of the twice exceptional child by using interactive methods, grouping the student with less or no hyperactivity, allowing the student to do their favorite activities like for example drawing and constantly supporting and inspiring the twice-exceptional student. However, there are some contradictions in the research, which was revealed through lesson observations. These contradictions is a part of academic educational experience of a twice-exceptional child. As it was observed, sometimes teachers over-facilitate the studies of th child, so that they use too many correction techniques, especially during oral homework checking. Such actions from teachers' side do not help the child academic experience but makes him to be more nervous and reluctant to study any more.

As it was previously mentioned, the child's peers do not always understand the hyperactivity of a child and that is why try to avoid interacting with him. Moreover, as teachers say sometimes even teachers are not aware of fact that the child is gifted hyperactive. As it was observed when the child is trying to ask some higher order critical thinking questions, the teachers stop him from doing this and even more so reply that a child is doing the tasks wrong. At the same time, teachers admit that to identify and address students' needs of being gifted and hyperactive is a matter of collaboration and interaction with other teachers who teach the child and with parents. The benefit for the child is that after such collaborations the teachers start to understand the specific features of this student which helps in further studies and social interaction with teachers and peers.

The effect of home environment on the twice exceptional child

The identification of twice-exceptionality of the case study child also has its impact on educational experience of a child at home. As the home observation shows the gifted

hyperactive child is experiencing almost the same challenges and benefits because of his twice-exceptionality.

The mother of the child admits that a child is hyperactive, however, she supposes this fact to be owing to the age of a child. The mother tries also to look at this point from a different angle and to admit that it could be a learning barrier to a child. That is why the mother and the family members try to support the child's giftedness and be patient towards his attention deficit hyperactivity disorder.

Being concentrated on doing the homework and managing the time is one of the challenges the student faces also at home. As the mother of a child mentions her son spends too much time on doing homework and the reason is not in his abilities to complete tasks quickly or slowly. It is connected with the child's misbehaviour (ADHD) which leads to poor managing his time. Moreover, as a parent says it happens because of different distractors like playing games, talking or other things. That is why the mother and the family always try to explain the case study child that if he is able to manage his time, he will save it for his hobbies and other favorite activities.

However, one of the contradictions in child's educational experience at home is that he does not deny that he has some kind of distractors while preparing homework or doing any other academic tasks like reading or solving some logical tasks, but the child does not admit those distractors to be the real distractors. The child says that usually he is concentrated on his studies at home and nothing and nobody disturbs him.

As for the benefits of the student's educational experience at home we can see that the family and the child's mother try to motivate, support and scaffold the child. The parent shares some time during the day to educational conversations with a child by reading and discussing some stories and sharing the true stories from her own life

experience which will help the child both to develop the giftedness and to overcome the challenges the child experiencing because of ADHD. The teachers in their interviews also point out that in order to help the twice-exceptional child, firstly the family relationships and the attitude of the family members towards the twice exceptional child is number one priority for the child's development. However, the parent admits that it is not always easy to keep patience while interacting with her gifted hyperactive son. So again, the giftedness of a child is not appropriately met, while the parent is paying too much attention to the attention deficit hyperactivity disorder of her son, which was also observed during home observation.

The interaction between child's family and school helps both family and parent to identify the weaknesses and strengths of the child. So it allows the child to feel not twice-exceptional in the context of education.

Strategies on inclusive education for twice-exceptional children

To provide appropriate education for a twice exceptional child teachers, a parent and a student himself tries to use different strategies of inclusive education. Among those strategies there could be distinguished two main categories which are teaching-learning strategies and educational strategies. The first category of strategies mostly refers to the methods and techniques used by all the participants of the case study to support in achieving better academic results by a gifted hyperactive child taking into account the learner's needs, interests and characteristics. The second category of strategies (educational strategies) is mostly connected with upbringing process of a twice exceptional child both at school and in the family which also leads to the improvement of academic studies of a gifted hyperactive child.

According to the interview responses of teachers as well as a child's and his mother's answers, all of them use the following teaching-learning strategies as differentiation, collaboration, scaffolding, close monitoring and control, punishment and praising, and strategies to motivate, prompt and support a student. At the same time teachers got used to practice the different educational theories like Gardner's multiple Intelligences Classification or Bloom's Taxonomy to meet both student's features as giftedness and hyperactivity. As a case study child notes strict discipline is one of the facts that helps a child to be every time on task, not to lose focus and motivation to study. At the same time, teachers realize the fact that their role is "to focus students' attention on studies" and to organize gifted hyperactive students' studies the way "they will not have any extra time to be very active" and by providing them the tasks of higher level the students will be all the time concentrated on their studies. Eldar's mother also mentions that to facilitate the child's studies "parents should control their child at home". This could be done by helping and assisting a child in their homework preparation, or by sending their gifted hyperactive child to some extra-curricular activities, or clubs (like chess or dancing). In such clubs the child is able to develop the areas where he is gifted and at the same time to meet the needs of hyperactivity through dancing, as it requires some energy and then the child might calm down easily.

On the other hand, all the participants of the case study use several educational strategies which influence on not only the academic experience of a child but on the whole upbringing process. The educational strategies are similar to the teaching-learning strategies which are collaboration of teachers and family and further support and assistance to a twice exceptional child, differentiation and scaffolding, the strategies of motivating and praising which are balanced with control and punishment. Collaboration of teacher and parents is a way "not to lose a child's giftedness in certain area" (Teacher 1). The Teacher

1 also emphasizes on the fact that a child spends most of the time at school and “teachers know the child from academic side better than parents”, that is why as Teacher 3 notes by liaising with teachers, parents could also develop their children’s giftedness and find more appropriate approaches to meet the child’s hyperactivity needs. For this reason, Teacher 2 advice parents to spend more time with their gifted hyperactive children by sharing some educational stories or motivating the students to be patient and hardworking, as this is the key to future success. Moreover, Teacher 1 points out that gifted hyperactive children need more psychological support from not only teachers and parents, but also from their peers. A parent and a child himself agree that support and motivation are important in the life of a twice exceptional child. In addition, the child’s mother admits that collaboration with teachers helps her in the process of raising her child.

Conclusion

To sum up, the results reveal that success in educational experience of the case study twice-exceptional child depends on whether the teachers, the family and the child himself identification of twice-exceptionality. If all the participants of the research are able to identify the giftedness of a child and to admit that he shares the characteristics of attention deficit hyperactivity disorder, it will help them to accommodate the child's needs in an appropriate way. The following discussion section will show how these findings applied to the research questions related to twice-exceptionality in Kazakhstani context.

Chapter 5. Discussion

This section aims to explore the educational experience of a twice exceptional child in the general educational institution in Kazakhstan through the perspectives of the child, his teachers and his parent. The researcher shares the conclusion on the main research question drawn in the scope of four sub research questions.

Teachers' awareness and perceptions, experience on twice exceptionals (Gifted students with ADHD) and the phenomenon of twice-exceptionality in Kazakhstan

As it was mentioned before teachers do not always work with gifted hyperactive children as it is required. Because of lack of awareness about twice exceptionality of students teachers either misdiagnose or overdiagnose such students, even more it is possible to just neglect the fact of having twice exceptionals in your classroom. The participants of this study stated that they are aware of fact that they are giving lessons to twice exceptional gifted hyperactive students. However, they admit that unfortunately teachers might think of gifted hyperactive students that such students have disruptive behaviour but are not talented. This finding is supported by the research of Foley-Nicpon (2011), Lee and Olenchak (2015), and Omdal (2015) who state that while working with twice exceptional gifted hyperactive children teachers firstly pay attention to the weaknesses of such children rather than their giftedness. The researchers explain that such attitude towards twice exceptionals depend on how deeply the teachers are aware of the phenomenon of twice exceptionality. As finding on a case study student shows, even if the teachers state that their positive attitude to and experience with twice exceptional children is very important to them and they try to do their bests in working with gifted hyperactive students, in reality the picture can be rather different. School observations and reflections of the case study child and his parent reveal that the needs of this student are not

accommodated in a proper way. This finding reveals the similarity with the research of Reis et al (2014), who contradicts the ideas of previously mentioned researchers. According to Reis (2014) teachers sometimes show their reluctance in working with twice exceptionals, which leads to a child's demotivation to study. This research was supported by the observation of the lesson of Teacher 1 who was not concentrated on having the twice exceptional child and did not try to differentiate the activities in accordance with the unique needs of a gifted hyperactive child.

In a different light, this finding on teachers inappropriate techniques of working with the twice exceptional child also supports the ideas of Turk and Campbell (2002). The researchers explain that such situation may happen in teacher practice even if a teacher is fully aware of the phenomenon of twice exceptionality and is able to accommodate the gifted hyperactive students' needs appropriately. This happens because working with only gifted or only hyperactive students can be very difficult even to a highly experienced teacher. But when there is the combination of such characteristics in one child it makes the teaching-learning process twice difficult to both a teacher and a student.

As findings show the experience with a twice exceptional child depends on how teachers approach to deal with both exceptionalities of a gifted hyperactive student. For example, from the interview with a child it is better for a child's studies if a teacher controls his discipline, but at the same time tries to explain the learning materials and help and challenge a child where necessary. The teachers of the study explain that it is not possible to know what is better for a gifted hyperactive child. That is why, teachers are usually collaborating together in order to discuss their experience with twice exceptionals and the effectiveness of their teaching techniques, Moreover, as teachers 1 and 2 teach in the same grade they try to plan their work in accordance with students' needs. These findings are corroborated by the research of Baldwin (2015) and Kennedy (2002). The

researchers highlight that collaborative partnerships of teachers is important since it can show the whole picture on how to work with different children effectively, as the knowledge and skills which are taken by students at school is a basis for their future studies and life.

The process of identification of a child to be twice exceptional can take a lot of teachers' time to understand the unique needs of them. As findings show identification of twice exceptionality at school is the most important thing for the child's overall educational experience. As teachers noted twice exceptional children who have the characteristics of giftedness and hyperactivity are strange but at the same time possess exceptionally developed critical thinking and cognitive skills. Teachers highlighted that identifying a twice exceptional student is their main job as the whole educational process will depend on this fact. The answers of the participants revealed the similarity with the research of Foley-Nicpon who explained that gifted students with ADHD disorder face unique needs in their educational experience. As it was previously mentioned the number of such students is increasing in Kazakhstani mainstream schools. According to Foley-Nicpon correct identification of gifted hyperactive children has impact on both the teachers' experience in every day classroom lessons and students' own studies at school.

As Lee and Olenchak (2015) mention, the characteristics of giftedness might resemble the characteristics of attention deficit hyperactivity disorder. This usually leads teachers to missed diagnosis of either of these characteristics. The case study showed that Eldar, the gifted hyperactive child, was not identified as a twice exceptional child until the 3rd grade. When he started to participate in different Olympiads in Mathematics and Languages his teachers realized that he was a bright child rather than just a hyperactive nuisance. In addition, after two meetings with the school psychologists, they identified Eldar with having attention deficit hyperactivity disorder. American Psychiatric

Association (2013) defined the ADHD students to have features of inattention, hyperactivity and impulsivity separately or jointly. At the same time the researchers Kokot (2011) and Hua et al. (2015) describe gifted children to be inattentive if they are not challenged enough or to become very impulsive or hyperactive if they are perfectionists or they are not willing to change their minds on the ideas they find excellent or they have very strong task commitment. The findings on the case study student supported the above mentioned ideas. The gifted hyperactive child was not firstly identified as a gifted child as teachers were mainly paying attention to the student's exceptionality of ADHD. Thus, the child's potential on talents were hidden by the similar characteristics of attention deficit hyperactivity disorder, which resulted in lack of identification of a child to be gifted for several years. As Wellisch and Brown (2012) explain in such situations the twice exceptional students are becoming gifted and misunderstood. The potential risk of this situation can result in student's turning into a gifted "underachiever". The findings on the case study child are corroborated by the research of Ronskley-Pavia (2015). The researcher supports the ideas of Wellisch and Brown (2012) by highlighting that misdiagnosing of gifted hyperactive students can lead to negative educational experience of twice exceptional children. As the case study showed the inappropriate and not timely diagnosing of Eldar to be twice exceptional led to inappropriate accommodating of his need as a gifted and hyperactive child and there was a risk to a child to become a gifted "underachiever".

Thus, we can conclude that the awareness of teachers of twice exceptionality can result in whether the academic and non-academic experience of child is successful or not. The case study proves that even though the teachers perceive the twice exceptionality of a gifted hyperactive child the way it is required the lack of its identification can cause unsatisfactory educational experience for a child.

The impact of identifying a child as twice exceptional or the lack of such identification on academic educational experience of a child

As it was mentioned above timely identification of twice exceptionalities of a child is very important to his academic studies. The case study teachers as well as a the parent note that the earlier they are able to identify that a child is twice exceptional in terms of giftedness and attention deficit hyperactivity disorder, the more deeply they will understand what exact challenges the child faces and how to accommodate his needs. In the case study with Eldar, a primary school child, who was late recognized as gifted and hyperactive child, we can see that he faced several academic challenges. Among those challenges the most important were connected with time-management skills, developing intellectual abilities, the low attention during the lesson, low abilities to concentrate on his studies, and the risks to be demotivated and lose interest and enthusiasm about his studies. These results confirm the research by Baldwin et al. (2015) and Lee and Olenchak (2015) who agree that the challenges, the twice exceptionals face, are connected with the inappropriate identification of twice exceptionality the students have. The researchers revealed that such challenges are also the consequences of the disruptive behaviour of a child who has the characteristics of attention deficit hyperactivity disorder. As the researchers explain and the findings reveal the twice exceptionality of the case study child has its impact on the academic life of a child in the classroom. While being very hyperactive during the lesson the child is not able to concentrate on given tasks or to finish them on time. As the result teachers reproach a child for his behaviour. That is why the child loses his motivation to study and becomes reserved. The child in the end is not able to study successfully. The social communication with peers of such child is becoming challenging to him. The students try to avoid contact with a gifted hyperactive child, because they have false opinion about his attitudes to studies and intellectual abilities.

Foley-Nicpon (2012) explains that possessing ADHD influences the social skills of a gifted child and at the same time impacts on decreasing his self-esteem. The child with low self-esteem is potentially unsuccessful in studies and gets academically demotivated more frequently than his non-ADHD peers.

The over-diagnosing and over-marking of attention deficit hyperactivity disorder has destructive effect on academic and social spheres of student's life. As the lesson observation of teacher 1 showed while trying to help the child the teacher used too much facilitating techniques like error corrections while checking homework or very close monitoring during the lesson, the teacher did not realize that it irritated the child and prevent him from studying effectively. This finding contrasted the research by Abramo (2015) and Omdal (2015). The researchers explain that constant support to gifted hyperactive children is beneficial to such kind of student. On the contrary, the case study showed that the teachers should not be constantly over-facilitating and keeping their attention on only the twice exceptional child as it brought some negative experience for the academic life of Eldar.

However, from a different perspective, there are some benefits for gifted hyperactive children. The researchers Chae et al. (2003) and Reis et al. (2014) state that hyperactivity can also influence on other skills of the twice exceptional student which in the end became helpful for him. The skills like leadership or creativity can be intensely matured by gifted hyperactive children. From the observation of the non-traditional lesson of Teacher 2, we can see that some hobbies of a child like drawing not only helps the child in perceiving the information during the lesson but also makes the child be more concentrated on his studies. The Teacher 2 explains that such activities like drawing while listening to the lesson material do not disturb the child in acquiring new skills or knowledge. That is why the teacher supports the child and find this activity inspiring to

him. As the result we can see that Eldar's love to drawing not only made him be more concentrated on his studies but also brought him the recognition of the best student-artist at school. Eldar was nominated the first place in the competition on drawing dedicated to the New Year celebration.

This finding revealed the correlation with the ideas of Kennedy et al. (2015) who explains that it is important to be well enough aware of the twice exceptional student's profile. In this case the teacher is able to scaffold the learning experience of a child and facilitate the educational process with a gifted hyperactive child. As the result, it leads to properly serve both of the exceptionalities of a gifted hyperactive child so that giftedness and hyperactivity turn to be a mutual aid in student's studies rather than learning barriers. This is important to know for teachers as the researchers in the field of giftedness (Kokot & Kruger, 2011) state that giftedness as well as ADHD is a learning barrier to a child. They found that underserving the needs of gifted children may lead to undesirable effect on not only the academic life of a twice exceptional child, but also the social relationships with peers. As over-criticism from the teachers side towards the highly developed intelligences of a child may lead to misunderstanding of the child's nature by his peers. As Gardner (1986) and Renzulli (2000) highlight giftedness is not only about academic studies of a child it can appear in a different way like creativity or other unique intelligences of a child. Both academic and non-academic giftedness of a twice exceptional child should be served by teachers in a proper way to make them beneficial for a child.

The impact of identifying a child as twice exceptional or the lack of such identification on educational experience of a child in the family

Family plays a great role in the twice exceptional child's educational experience at home. To be successful in studies the child must be supported by his family. The findings on the case study show that Eldar is experiencing the same challenges in his educational

experience at home. The home observation and the interviews with a child and a parent reveal that the parent is aware of the fact that the child is twice exceptional. Both the parent and the child admit that Eldar has poor time-management and can be easily distracted by playing games or doing other activities. That is why the process of doing homework can take a lot of time. This result in parent's loss of patience while helping the child and consequently the reproach or punishment from the mother's side. Neumeister (2013) explains that there should not be such situations at home. The parent is better to acknowledge his/her responsibilities for bringing up such twice exceptional children. These findings are also relevant to the research of Rafalovich (2001) who is highlighting the importance of the parent's role in the development of a child. Rafalovich's research does not support the action of a parent even if she is not able to control her feelings because of the child's behaviour. According to Rafalovich (2001) Eldar's mother would be better to be strict to her son's hyperactive behaviour, but not to forget to possess patience, as the hyperactivity could be also the consequence of giftedness rather than ADHD. Hua et al. (2015) note the inconsideration of giftedness leads to frustration of a child. The child can become very sensitive to parents impatience. The above mentioned situation can end up with the demotivation of a child to study.

The positive side if educational experience of a child at home is connected with parent's recognition of child's talents. As mother says she enjoys devoting her time to child's interests like playing chess, drawing, reading and discussing interesting stories or solving logical tasks. She says that while doing such activities the child's inspiration makes her feel proud of him and his success. This finding reveals the similarity with the research of Baldwin et al. (2015). According to the researchers extra-curricular activities provide the development of child's self-regulation, creativity, critical thinking, problem-solving, communicative and organizational skills. The research of Barger (2009) and Omdal (2015)

agree with their colleagues that encouraging the twice exceptionals' interests has a positive effect on the development of the giftedness of a child as well as helps to accommodate the ADHD needs.

The mother of the child explains that while being engaged in some activities like discussion of the book or playing chess with her son she notices that her child starts to regulate himself in the terms of attention deficit hyperactivity disorder. Overall, this positively results in the academic and non-academic success of a child not only at home but also a school. The findings are corroborated by the research of Abramo (2015) who notes that twice exceptional children are deserving to be valued as gifted children at the same time they feel satisfied if their attention deficit hyperactivity disorder is also taken into consideration and well accommodated by people around them.

Inclusive Education strategies to accommodate the needs of twice exceptional gifted children with attention deficit hyperactivity disorder

All the participants shared their experience on what inclusive strategies they use in order to accommodate the needs of a gifted hyperactive child. Both the teaching-learning strategies and educational strategies are used by the teachers, the parent and the child himself. The appropriate combination of these strategies results in effective teaching-learning and upbringing processes. This finding coincides with the research of Baldwin (2015), who explored the dual-emphasis approach. This approach, called as “a whole child approach”, is important in terms of treating both exceptionalities of a child from academic and non-academic perspectives.

The case study shows that in terms of academic life of a child the teachers try to use differentiation, collaboration, scaffolding, monitoring and control, punishment and praising, and strategies to motivate, prompt and support the student. The teachers also

mentioned that while teaching the twice exceptionals they keep in mind the educational theories of Gardner's multiple intelligences and Bloom's taxonomy. These theories help teachers to deepen their understanding about giftedness of twice exceptional children. As Professor Omdal (2015) investigated it is very important to be sure that teachers are not just trying to effectively accommodate the learners needs, but also they are aware of the theoretical knowledge and they are trained enough to work with a such group of students. The child's life depends on how he is treated and if a teacher is theoretically knowledgeable and practically skillful on how to work then the parents can be sure for the future of this child. Moreover, the awareness of teachers of how to work with twice exceptionals can influence on the teaching-learning strategies the parents use at home.

Teacher is a bridge between a child and a parent in academic perspectives. Thus, it is really important to teachers, first of all, to appropriately accommodate twice exceptional students' needs and to advice and direct parents how to work with their children. These ideas are supported by the research of Kennedy et al (2002) and Reis et al (2014) who called it the collaborative partnerships. These partnerships should be established between teachers themselves and teachers and parents and any other educational stakeholders who can influence the academic and non-academic life of a twice exceptional student. The researchers explain that being trained and taught how to work with twice exceptional is of course important. However, today in Kazakhstani educational institutions of teachers' professional developmet there is not enough trainers or programs to train teachers in both areas giftedness and special education. That is why researchers emphasize on collaborative partnerships among different educational participants as it can raise the awareness of teachers and parents on how to work with gifted hyperactive children.

The case study interview results revealed that teachers are working in teams, share their experience and consult each other on how to provide students with appropriate

service in terms of their exceptionalities. Teachers of primary school work in small groups to identify the areas where there should be positive interventions in students academic and non-academic life. The perspective future teacher also tries to keep contacts with primary school teachers to have in mind how to work successfully with extraordinary students in future. This kind of work is researched in the studies of Abramo (2015), Barger (2009), Kennedy (2002), Lee and Olenchak (2015), Rafalovich (2001), Reis et al (2014), who investigated that twice exceptional students have to be served with special individual educational plans which will reflect their own development of different exceptionalities they have. We can not say that all gifted hyperactive children have the totally same characteristics. While some students have more vivid talents which are not masked by their hyperactivity or impulsivity, others may struggle with ADHD without being identified as gifted. Not correctly developed educational plans can be no effective to accommodate the twice exceptional students' needs or even more can affect negatively on the overall development of a child. Usually such plans are not only oriented on academic progress of student but also on strategies to meet students' social and emotional needs, as it was researched by Reis (2014). Thus the whole child approach which is launched by the accommodation plan (Kennedy, 2002) can be the solution to serve the twice exceptionals at school.

The case study observations of the lessons had some contradictions to what teachers respond in their interviews on using strategies. The lesson of a classroom teacher showed that the teacher was paying too much attention to the hyperactivity of a child, and did not do any attempts to contribute the giftedness of a gifted hyperactive child. The teacher found it reasonable to make the student be quiet and has not motivated or challenged the child as he might disturb others. The student's critical thinking questions and other tasks which were done by a case study student with very high problem-solving skills were not

addressed appropriately. Thus, we can make the conclusion that in practice the findings revealed some contradictions with the research of Abramo (2015) and Lee and Olenchak (2015) who suggested that motivating twice exceptional students in the classroom is really important to fulfill their gifted potential and at the same time to lessen their hyperactivity. The researchers explain that such students have strong task commitment. It was discovered by Renzulli (2000) the theory of three ring conception. The task commitment of such students can influence not only their talents but also their discipline and behaviour. However, the case study teachers were either reluctant to find some challenging tasks to a twice exceptional student or just not aware of the effect of student's task commitment on his behaviour.

From the different perspective, the teachers are not always trying to lessen their hyperactivity. As the observation of a second non-traditional lesson shows the teacher 2 even encourages the students hyperactivity in a very skillful way. Being aware of the fact that the child is not only good at academic studies but also is very talented in dancing and drawing the teacher gave the student tasks which will improve the non-academic skills of a twice exceptional child. The picture of child's mother and the flashmob dance were very interesting to a child. As Abramo (2015) notes encouraging student's talents and be sure that you are accommodating the attention deficit hyperactivity disorder is one of the most challenging tasks for a teacher. Thus, we can say that even if a child was too active and spend a lot of energy while dancing at the concert-lesson this did not disturb the educational process of a child. Moreover, there were not noticed the hyperactivity of a child.

Not less important strategies are connected with the educational experience of a child at home. As it was already mentioned the teacher is a bridge between a child and a family. The parents as well as teachers are not always aware of twice exceptionalities of

their children. As the case study showed the mother of the child supposed that her child has disruptive behaviour because of his age, however, the mother's speculation was not proved. Eventually, the school psychologist diagnosed the ADHD in the student's profile. Omdal (2015) and Rafalovich (2001) explain that the development of a twice exceptional child depend on how parents are accommodating the needs of their children. The researchers agree with the ideas of Eldar's teachers about what strategies are better to use for parents. Parent's constant negotiation with teachers can help to see the real picture of her child and to use appropriate techniques like scaffolding, educational conversations with a child. The findings are also supported by Turk and Campbell (2002) prove that the incentives used by Eldar's mother and grandmother can encourage him. The child feels the importance of his talents and tries to self-regulate and manage his time and behavior in a proper way.

One of the most important inclusive strategies are connected with peers. The teacher 3 notes that effectively planned group work reflects positively on students social and emotional sides of educational experience. The teacher explains that grouping gifted hyperactive children which leads to two-sided benefit for a twice exceptional and non-twice exceptional children effectively facilitates the teaching-learning process. While the twice exceptional child can be engaged in helping his peers academically the non-hyperactive children can influence the behaviour of the child. Barger (2009) explains such approach as a practical way to increase the potential of talents of a gifted hyperactive child. At the same time it is an efficient strategy for a teacher to establish good relationships between children.

Conclusion

To sum up, we can see that the characteristics of educational experience of a twice exceptional child varied from misunderstanding of the exceptionalities to using professional approaches to accommodate the student's both exceptionalities. Eldar's case

study revealed that there is a significant difference in theoretical knowledge of teachers about twice exceptionalities and their practical use of them. This discrepancy can be explained because the phenomenon of twice exceptionality is not fully researched in Kazakhstan. Moreover, the teachers themselves are not enough trained in both giftedness and ADHD. The parent is also not fully informed about her child's needs and characteristics. Thus, we can conclude that the research in the field of twice exceptionals should be continued. The focus of the researchers must cover not only the consequences of twice exceptionality on the child's educational experience, but also the consequences of insufficient knowledge and skills of teachers and parents about twice exceptionality. Twice exceptional students are to be served appropriately if teachers and parents are able to do it as it is expected.

Chapter 6. Conclusion

Twice exceptionality is the issue in Kazakhstani mainstream schools since it is not fully explored by researchers and practitioners. The educational experience of one of the most vulnerable groups of children, who are identified as gifted and hyperactive students, is influenced by the awareness of and attitude to their twice exceptionality by their family, school and the whole society. According to the State Program of Educational Development for 2011-2020 the improvement of inclusive education is one of the main goals for the secondary education in Kazakhstan. That is why serving gifted hyperactive children is also becoming an issue of the improvement of inclusive education in Kazakhstan. According to Rouse, Yakavets and Kulakhmetova (2014) the inclusive education reform “supports and welcomes diversity” of students (p. 197). They support this statement by the international research of other scholars which can be applied to the inclusive education practice implementation in Kazakhstan.

Major findings of the research

The case study on the characteristics of educational experience of a gifted hyperactive child revealed the following major findings.

The major finding of this thesis is that there is a sufficient discrepancy between the awareness of teachers’ of the phenomenon of twice exceptionality and their actual experience with twice exceptional children. According to the teachers’ interviews, they realize their role in teaching and educating gifted children with attention deficit hyperactivity disorder. However, as lesson observation show the teachers’ awareness of and attitude to twice exceptional children do not coincide with their approach to teach gifted hyperactive children. The main reasons of such discordance are connected with the teachers’ identification of exceptionalities of a twice exceptional child. The teachers are

potentially to misdiagnose or over-diagnose one of the exceptionalities of a child, as usually the giftedness and ADHD mask each other (Wellisch, 2012).

Another finding demonstrates that the educational experience of a twice exceptional child is affected by the school or home environment of a child. As it was previously mentioned the teachers' proper identification of twice exceptionality is important to the child's successful academic studies. At the same time the recognition of dual exceptionality of a child by family is not less important for the whole academic and non-academic development of the case study child. As Omdal (2015) explains "individuals planning for and teaching students with twice exceptionalities need specialized training in both gifted and special education" (p.246). We can conclude that not only teachers but also parents of twice exceptional children should educate themselves in this sphere in order to provide proper service to such kind of children.

Thirdly, accommodating the needs of gifted hyperactive children accordingly depends on the inclusive strategies used by the teachers, the parents and the twice exceptional children themselves. However, there are no universal educational approaches and instructional methods to such population of children. As Reis et al. (2014) highlight the strategies for gifted children with attention deficit hyperactivity disorder must be "tailored to the unique strengths and needs of the individual" (p.226). Thus, the strategies to accommodate the twice exceptional child's needs suggested by the participants of the case study cannot be applied to other gifted hyperactive children.

Recommendations and future research directions

The research revealed the characteristics of the educational experience of a gifted hyperactive child in the scope of one case study. The research questions of the study shed the light on the case study teachers' awareness of and attitudes to twice exceptionality as

the educational phenomenon. The case study showed that a twice exceptional child in Kazakhstani mainstream school is treated rather differently than the same category of children around the world. Thus, the future research directions may be explored in the following ways.

Teachers' awareness of twice exceptionality and ways of identifying gifted hyperactive children impact on the educational experience of a twice exceptional child. Thus, the researcher may continue to explore how the effective identification of twice exceptionality influences the academic and non-academic experience of gifted hyperactive children. Secondly, as Kazakhstan is intended to implement full inclusion at mainstream schools according to State Educational Program 2020 it is important to examine inclusive strategies and their practical usefulness in terms of accommodating the needs of twice exceptional students effectively. These research directions will be beneficial for the policy makers, school community and families of twice exceptional students. While policy makers and teachers will be aware of planning and realizing the inclusive education program effectively, the families will benefit from proper accommodating of the unique needs of their children and will be able to use effective strategies in the upbringing process.

Limitations of the study

The main limitation of the study is connected with time constraints and lack of qualitative data evidence about the case study. According to the research design the researcher supposed to interview a case study child with a parent, two current primary school teachers of the child and two perspective teachers from the middle school. Eventually one of the middle school teachers did not participate in the interview because of conflicting schedule of the teacher and the researcher.

Secondly, the limited number of lessons, only two lessons, did not show the whole picture to the researcher of the teachers' overall attitudes to the phenomenon of twice exceptionality and the ways they identify the exceptionalities of a gifted hyperactive child. The analysis of the research questions would have been enlarged and deepened if the researcher had the access to the samples of the teacher's classroom work, which shows the differentiation techniques as well as the methods of identification of giftedness in a child. On the other hand, the samples of the case study student's classroom or homework assignments would also show the whole picture of the student's academic challenges and the reveal the areas of giftedness of a child deeply.

In terms of the interviews with the participants, the risk of being embarrassed by the research questions prevented teachers to give the full answers to the research question. The study would have been upgraded if the researcher previously piloted the interview questions and enhanced them in accordance with the specification of the case study.

Final reflections on the study

Finally, I would like to express my interest to explore this topic. As a teacher, I face the problems when I am not able to treat the unique needs of twice exceptionals or even to recognize twice exceptional children. That is why this research helped me to study this field of education thoroughly and to reflect on my own teacher practice. As a researcher, I have learnt a lot of new useful things about how to conduct qualitative study. I gained knowledge on the organization and conducting case study research. I realized that passion to the research and devoting your time and effort are significant for the researcher. The most valuable thing that I learnt during my research is that school and family may influence the future life of a gifted hyperactive child from both positive and negative perspectives.

References

- Abramo, J. M. (2015). Gifted Students with Disabilities: "Twice Exceptionality" in the Music Classroom. *Music Educators Journal*, 101(4), 62-69.
doi:10.1177/0027432115571367
- Aguiar, A., Eubig, P. A., & Schantz, S. L. (2010). Attention Deficit/Hyperactivity Disorder: A Focused Overview for Children's Environmental Health Researchers. *Environ Health Perspect Environmental Health Perspectives*, 118(12), 1646-1653.
- American Psychiatric Association Practice Guidelines for the Treatment of Psychiatric Disorders. (2009). doi:10.1176/appi.books.9780890423905.154688
- Barger, R. (2009). Gifted, talented, and high achieving. *Teaching Children Mathematics*, 3-3.
- Baldwin, A. (2005). Identification concerns and promises for gifted students of diverse populations. *Theory into Practice*, 2-2.
- Borland, J. H. (2005). Gifted Education Without Gifted Children: The Case for No Conception of Giftedness. *Conceptions of Giftedness*, 1-19.
doi:10.1017/cbo9780511610455.002
- Chae, P. K., Kim, J., & Noh, K. (2003). Diagnosis of ADHD Among Gifted Children in Relation to KEDI-WISC and T.O.V.A. Performance. *Gifted Child Quarterly*, 47(3), 192-201. doi:10.1177/001698620304700303
- Creswell, J. W. (2014). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson/Merrill Prentice Hall.

- Foley-Nicpon, M., Allmon, A., Sieck, B., & Stinson, R. D. (2011). Empirical Investigation of Twice-Exceptionality: Where Have We Been and Where Are We Going? *Gifted Child Quarterly*, 55(1), 3-17. doi:10.1177/0016986210382575
- Foley-Nipkon, M. et al. (2012) Self-Esteem and Self-Concept Examination Among Gifted Students With ADHD, doi: 10.1177/0162353212451735
- Gallagher, J. (2002). Gifted Education in the 21st century. *Gifted Education International*, 16, 100-110. doi:10.1177/0261429/40201600203
- Hua, O., Shore, B. M., & Makarova, E. (2014). Inquiry-based instruction within a community of practice for gifted-ADHD college students. *Gifted Education International*, 30(1), 74-86. doi:10.1177/0261429412447709
- Mathison, S. (1988). Why Triangulate? *Educational Researcher*, 17(2), 13-17.
- Merriam, S. B. (2015). Qualitative Research. *Handbook of Research on Scholarly Publishing and Research Methods*, 125-140.
- Multiple Intelligences: Howard Gardner. (1983). *Encyclopedia of Educational Theory and Philosophy*. doi:10.4135/9781483346229.n229
- MoES Ministry of Education and Science. (2010). *State Program of Education Development for 2011-2020, Approved by Presidential Order 1118 on 7 December 2010*. MoES, Kazakhstan
- Kennedy, K. Y., Higgins, K., & Pierce, T. (2002). Collaborative Partnerships Among Teachers of Students Who Are Gifted and Have Learning Disabilities. *Intervention in School and Clinic*, 38(1), 36-49. doi:10.1177/10534512020380010501

- Kokot, S., & Kruger, D. (2011). Addressing Giftedness. In E. Landsberg (Ed.), *Addressing barriers to learning. A South African Perspective* (2nd ed.). Pretoria: Van Schaik.
- Lee, K. M., & Olenchak, F. R. (2015). Individuals with a gifted/attention deficit/hyperactivity disorder diagnosis: Identification, performance, outcomes, and interventions. *Gifted Education International*, 31(3), 185-199.
doi:10.1177/0261429414530712
- Multiple Intelligences: Howard Gardner. (1983). *Encyclopedia of Educational Theory and Philosophy*. doi:10.4135/9781483346229.n229
- Neumeister, K. S., Yssel, N., & Burney, V. H. (2013). The Influence of Primary Caregivers in Fostering Success in Twice-Exceptional Children. *Gifted Child Quarterly*, 57(4), 263-274. doi:10.1177/0016986213500068
- Omdal, S. (2015). Twice Exceptionality From a Practitioner's Perspective. *Gifted Child Today*, 38(4), 246-248. doi:10.1177/1076217515597287
- Pfeiffer, S. I. (2008). *Handbook of Giftedness in Children Psycho-educational Theory, Research, and Best Practices*. Boston, MA: Springer Science Business Media, LLC.
- Pfeiffer, S. I. (2013). *Serving the gifted evidence-based clinical and psychoeducational practice*. New York, NY: Routledge.
- Perkins, D. (1995). Outsmarting IQ: The emerging science of learnable intelligence. *Choice Reviews Online*, 33(04). doi:10.5860/choice.33-2424
- Rafalovich, A. (2001). Disciplining Domesticity: Framing the ADHD Parent and Child. *The Sociological Quarterly*, 42(3), 373-393.

- Reis, S. M., Baum, S. M., & Burke, E. (2014). An Operational Definition of Twice-Exceptional Learners: Implications and Applications. *Gifted Child Quarterly*, 58(3), 217-230. doi:10.1177/0016986214534976
- Renzulli, J. (2000). The Identification and Development of Giftedness as a Paradigm for School Reform. *Journal of Science Education and Technology*, 9(2), 95-114. Retrieved September 2, 2015, from <http://www.jstore.org/stable/40188544>
- Riccio, C. A., Gonzalez, J. J., & Hynd, G. W. (1994). Attention-Deficit Hyperactivity Disorder (ADHD) and Learning Disabilities. *Learning Disability Quarterly*, 17(4), 311.
- Ronksley-Pavia, M. (2015). A Model of Twice-Exceptionality: Explaining and Defining the Apparent Paradoxical Combination of Disability and Giftedness in Childhood. *Journal for the Education of the Gifted*, 38(3), 318-340. doi:10.1177/0162353215592499
- Rouse, M., Yakavets, N., & Kulakhmetova, A. (2014). Towards Inclusive Education: Swimming Against the Tide of Educational Reform (D. Bridges, Ed.). In *Educational Reform and Internationalisation The case of School Reform in Kazakhstan* (1st ed., pp. 196-216). Cambridge: Cambridge University Press.
- Spearman, C. (1904). "General Intelligence," Objectively Determined and Measured. *The American Journal of Psychology*, 15(2), 201. doi:10.2307/1412107
- Sternberg, R. J., Jarvin, L., & Grigorenko, E. L. (2011). *Explorations in giftedness*. Cambridge: Cambridge University Press.

Turk, T. N., & Campbell, D. A. (2002). What's wrong with Doug: The academic struggles of a gifted student with ADHD from preschool to college. *Gifted Child Today*, 48-65.

UNESCO. (n.d.). What is Inclusive Education? Retrieved March 10, 2016, from <http://www.unescobkk.org/education/inclusive-education/what-is-inclusive-education/>

Wellisch, M., & Brown, J. (2012). An integrated Identification and Intervention Model for Intellectually Gifted Children. *Journal of Advanced Academics*, 23(2), 45-167. doi:10.1117/1932202X12438877

Wormald, C. (2009) An enigma: Barriers to the Identification of gifted students with learning disability. PhD Dissertation

Zentall, S. S., Moon, S. M., Hall, A. M., & Grskovic, J. A. (2001). Learning and Motivational Characteristics of Boys with AD/HD and/or Giftedness. *Exceptional Children*, 67(4), 499-519. doi:10.1177/001440290106700405

Appendix A: Informed consent form**INFORMED CONSENT FORM****Teacher Interview****Twice Exceptionality: educational experience of a gifted hyperactive child through the perspective of the child, his teachers and his parents.**

DESCRIPTION: You are invited to participate in a research study on understanding the experience of teachers and families of working with gifted hyperactive children. 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 collated and 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: 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 guarantee you not to probe directly on questions which might embarrass you. The benefits which may reasonably be expected to result from this study are the generated knowledge of twice exceptionality in the context of inclusive education in Kazakhstan. Moreover, in the end of the research you will be provided with short summary of the research and recommendation on how to work with gifted hyperactive children. Your decision whether or not to participate in this study will not affect your employment.

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

CONTACT INFORMATION:

Questions: If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, contact the Master's Thesis Supervisor for this student work, (Rita Kasa, Rita.Kasa@nu.edu.kz, +7)

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

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: _____

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

According to the law of the Republic of Kazakhstan an individual under the age of 18 is considered a child. Any participant falling into that category should be given the Parental Consent Form and have it signed by at least one of his/her parent(s) or guardian(s).

INFORMED CONSENT FORM

Teacher Lesson observation**Twice Exceptionality: educational experience of a gifted hyperactive child through the perspective of the child, his teachers and his parents.**

DESCRIPTION: You are invited to participate in a research study on understanding the experience of teachers and families of working with gifted hyperactive children. You will be asked to be observed during the lesson. The observed lesson will be recorded by the notes in the lesson observation protocol and it will be used only for research purposes. All collected information will be collated and 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: Your participation will take approximately 45 minutes during the lesson observation.

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 hyperactive children at school. The benefits which may reasonably be expected to result from this study are the generated knowledge of twice exceptionality in the context of inclusive education in Kazakhstan. Moreover, in the end of the research you will be provided with short summary of the research and recommendation on how to work with gifted hyperactive children. Your decision whether or not to participate in this study will not affect your employment.

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

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- 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: _____

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

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INFORMED CONSENT FORM

Parent observation and interview**Twice Exceptionality: educational experience of a gifted hyperactive child through the perspective of the child, his teachers and his parents.**

DESCRIPTION: You are invited to participate in a research study on understanding the experience of teachers and families of working with gifted hyperactive children. You will be asked to take part in the face-to-face semi-structured interview, and to be observed during this visit. The interview will be held at your home environment by preliminary mutual agreement. It will be audio taped. The observation focus is strictly connected with parent-child interaction during the observation period. The interaction and conversations during the observation will be recorded (voice only) by the preliminary mutual agreement. The aim is to get better practical understanding of the educational experience of a child in the family. The observation protocol will be filled by memory notes after observation. Then the audiotaped material of the interview and observation will be transcribed and used only for research purposes. All collected information will be collated and 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: Your participation will take approximately 4 hours, including 30-60 minutes for interview.

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 probe directly on questions which might embarrass you, and not to share any heard or seen information with any third parties. There might be the risks of been observed at home setting. As the observation will be held in the home environment and may reveal some research non-related personal information of research participants. To minimize this risk the researcher guarantees that any thing that is talked and seen in the participants' house will not be shared with the third parties.

The benefits which may reasonably be expected to result from this study are the generated knowledge of twice exceptionality in the context of inclusive education in Kazakhstan. Moreover, in the end of the research you will be provided with short summary of the research and recommendation on how to work with gifted hyperactive children. Your decision whether or not to participate in this study will not affect your child's identity to be recognized at school.

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

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- 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: _____

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

According to the law of the Republic of Kazakhstan an individual under the age of 18 is considered a child. Any participant falling into that category should be given the

Parental Consent Form and have it signed by at least one of his/her parent(s) or guardian(s).

INFORMED CONSENT FORM

Parental Consent Form

Twice Exceptionality: educational experience of a gifted hyperactive child through the perspective of the child, his teachers and his parents.

DESCRIPTION: Your child is invited to participate in a research study on (understanding the experience of teachers and families of working with gifted hyperactive children). Your child will be asked to (take part in the face-to-face semi-structured interview in your presence and to be observed by the researcher at home in your presence and at school during two lessons.

Firstly, your child will be observed at school during two different lessons prior to home observation. The child – teacher interaction will be observed only. The information got from observation will be recorded in written form during the observation. No audio/photo/video recording during the lesson will be used. The teacher will not be informed about the focus of this observation.

Secondly, the home observation as well as interview with your child will be held in your presence by preliminary mutual agreement with you. The got information will be audio taped. Then the audiotaped material of the interview and observation will be transcribed and used only for research purposes. The observation will be recorded in written form by memory notes after the observation visit.

All collected information will be collated and 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: Your child's participation will take approximately 4 hours, including 20-30 minuted interview during home observation and two 45-minutes lessons during school observation.

RISKS AND BENEFITS: The risks associated with this study are the risks to be embarrassed during the interview or observation. In this case the researcher guarantees you not to probe your child directly on questions which might embarrass you. The researcher guarantees you not to share any heard or seen research non-related personal information with any third parties. The researcher will provide full anonymity and confidentiality to the family. The researcher will separate the stages of collecting data at school first and then at home and will not discuss your child with any teacher at school in order to protect the identity of a child at school. The benefits which may reasonably be expected to result from this study are the generated knowledge of twice exceptionality in the context of inclusive education in Kazakhstan. Moreover, in the end of the research you will be provided with

short summary of the research and recommendation on how to work with gifted hyperactive children. Your decision whether or not your child participates in this study will not affect your his studies at school, and the identity of your child will not be revealed at school.

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

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Questions: If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, contact the Master’s Thesis Supervisor for this student work, (Rita Kasa, Rita.Kasa@nu.edu.kz, +7)

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

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: _____

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

According to the law of the Republic of Kazakhstan an individual under the age of 18 is considered a child. Any participant falling into that category should be given the Parental Consent Form and have it signed by at least one of his/her parent(s) or guardian(s).

Appendix B: Interview questions

Interview Questions for teachers

1. Are there any gifted students in your class? How do you identify them?
2. Are there any students with some other learning barriers among those gifted students (challenging behaviour, disability, etc.)?
3. Can you list some educational challenges for such learners? Can you specify some educational challenges for gifted hyperactive students?
4. What kind of strategies can be used to address such students' needs?
5. If these strategies are not applied, how can it influence on the academic achievements of gifted hyperactive students?

Interview questions for a parent

1. Is your child good at any subjects? What subjects interest your child the most?
2. How often do you help your child with home work assignments or other educational tasks at home?
3. Do you find it sometimes difficult to work with your child on preparing for school? What do you think the main reason is (hyperactivity, etc.)?
4. Can you share with some personal methods to do homework effectively with your child regardless his/her challenging behaviour? How often do you use them while helping your child with homework assignments?

Interview questions for a child

1. Do you like any subjects at school? What are they?
2. Did you participate in any olympiads on these subjects? What was the result of them?
3. Do you like completing task at school or doing homework on these subjects carefully? Do you find it difficult or easy?
4. How long do you usually prepare your homework? Does anything interrupt you during doing your homework? Why does it happen?
5. What is the best way for your teachers and your parent to help you with your studies?

Appendix C: Observation Protocols

Home observation

Main focus:

Parent-Child interaction

Child's behavior and the way to maintain conversation with his/her parent during doing homework.

Parent's strategies to meet the needs of twice exceptionality of the gifted/hyperactive child

The home atmosphere (regarding to parent's attitude towards child's giftedness and hyperactivity)

Lesson Observation

Main focus:

Teacher-Child interaction

Child's interest, participation and achievements during the lesson

Child's behavior and the way to maintain conversation with teacher during the lesson.

Teacher's strategies to meet the needs of twice exceptionality of the gifted/hyperactive child

The classroom atmosphere (regarding to teacher's attitude towards child's giftedness and hyperactivity)

Appendix D: Summary of the Literature Review

