

Teachers and students' perceptions on the characteristics of effective teachers: The role of content knowledge, pedagogical knowledge and skills, and trait emotional intelligence

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Declaration

I hereby declare that this submission is my own work and to the best of my knowledge it contains no materials previously published or written by another person, or substantial proportions of material which have been submitted for the award of any other course or degree at NU or any other educational institution, except where due acknowledgement is made in the thesis. This thesis is the result of my own independent work, except where otherwise stated, and the views expressed here are my own

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NUGSE Research Committee

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Abstract

International research has shown that teachers play a crucial role in students' success. In recent years, Kazakhstan has implemented a range of reforms that aim to enhance teachers' status and the quality of teaching in the country. Therefore, greater understanding of the characteristics that define effective teachers is needed to design teacher education initiatives that lead to improvement of education quality. This quantitative, cross-sectional design study set out to investigate the perceptions of 125 teachers and 434 students from a region in northern Kazakhstan on the characteristics that define the effective teachers in terms of content knowledge, pedagogical knowledge and skills, and trait emotional intelligence. The results indicated that the professional profile of effective teachers, according to the perception of the participants, is best defined by characteristics such as lesson planning, instructional strategies, and student learning and to a lesser extent by features such as classroom management and trait emotional intelligence. Comparing teachers and students' perceptions, the results suggested that teachers believe that all the variables included in this study are part of the range of competencies of effective teachers to a greater extent than students do. In addition, it was evidenced that the years of experience of the teachers and the gender of the students had an impact on the perceptions of the participants on the defining characteristics of effective teachers. Finally, a discussion of the results, together with the limitations, recommendations for future research and the educational implications of the study are provided.

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Chapter 1: Introduction

“A teacher affects eternity; he can never tell where his influence stops”.

Henry Adams (1999, p. 252)

Introduction

In the new age of globalization, knowledge economy and rapid technological progress, many countries search for new directions that would help them to keep up with the other fast-developing countries. A growing number of countries see investment in human capital as one of the key instruments to their socio-economic development. OECD (2001) defines human capital as “the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of social and economic well-being” (p. 18). International experience has shown that investment in human capital is beneficial for both the society and economy of the nations (Barro, 2001; Galor&Tsiddon, 1997). Some countries also view nation’s knowledge and skills as valuable assets in socio-economic modernization, where education plays a very important role.

Kazakhstan has recently embraced the idea of the contribution of human capital investment to its socio-economic prosperity, where education development plays an important role in it. In 1997 the *Strategy for development of the country “The Kazakhstan - 2030”* was introduced, where one of the long-term priorities was the development of education. As a result, the investments in education have boosted in the country, which is evidenced in gradual increase of GDP expenses on education in Kazakhstan the expenditure on public education in Kazakhstan rose from 2.26% in 2004 to 3.06% in 2009 (MOES, n. d.). Furthermore, in 2011 the expenditure on education grew to 3.6% (OECD, 2014).

In 2010 the *State program of education development in the Republic of Kazakhstan for 2011- 2020* was introduced with the goal of “increasing competitiveness of

education and development of human capital through ensuring access to quality education for sustainable economic growth” (MOES, 2010, p. 1). By investing in human capital, the country tries to bring up “technically progressive, productive labor force, which can adapt to the rapidly changing world. Those economies that invest in development of education, skills and abilities of population will gain success in future” (MOES, 2010, p. 5).

In sum, the reform and development of education sector have become national prominent objectives that will, in turn, contribute to the socio-economic modernization of Kazakhstan and influence its status on the international arena (Nazarbayev, 2012). Thus, major steps have been taken towards the improvement of the educational system and different educational reforms and policies were introduced in Kazakhstan at all levels of education, including:

- Transfer of financial responsibility from the center to the regions
- Introduction of the Unified National Testing (UNT - standardized testing that gives the certificate of completion of secondary school and entrance examination to higher education institutions)
- Introduction of a trilingual system of education (Kazakh, Russian and English)
- Development of a framework for incorporation of ICT in schools
- Piloting of a 12-year education system
- Opening Nazarabayev Intellectual Schools and Nazarabayev University (MOES, 2010; OECD, 2007, 2014).

Besides, considerable effort is being made around recruitment of quality personnel for the teaching as well as ongoing high quality training and professional development. It is recognized and understood at the government level that in order to improve education, highly skilled specialists should be trained and promoted to work in this field (Nazarbayev,

2012). However, teaching profession faces a range of issues in Kazakhstan that influences the quality of education these days (MOES, 2010; OECD, 2014). The following section provides the background of the challenges that prompted the undertaking of this study.

Background of the Problem

Kazakhstan became a part of the USSR in 1920. The goal of Soviet education was to train active builders of a communist society. Schools functioned as the primary agency to instill the objectives of the Soviet state based on communism and to fulfill the goals of the Soviet Union. As Ross (1960) states, “education was not the enrichment of the individual for the individual’s sake, but exclusively for the state’s sake” (p. 550). In the entire system of Soviet education, starting from kindergarten and ending with higher education institutions, a notion of “Marxist materialism” in education pervaded with the goal to bring up “a young Communist-submissive, disciplined, and unquestioning” (Ross, 1960, p. 541).

Kazakhstan gained its independence in 1991 and moved to knowledge-based economy. Although the need to change the educational system became more evident after the shift to knowledge-based economy, the task was difficult to accomplish due to social and economic crisis that occurred after the dissolution of the Soviet Union. Consequently, Soviet education structure remained unchanged in Kazakhstan in the early years of independence. Moreover, the educational system was poorly developed and less funded at the transition period (Johnson, 2004). Public spending on education decreased sharply from 6 % in 1990 to 3.5% in 1994 (Asian Development Bank, 2001). As an inevitable consequence, it negatively influenced education quality and raised some issues in this field. A large range of issues were concerned with teaching profession; it became unattractive and faced many challenges, such as low status in society, lack of high quality teaching staff, low motivation and lack of desire for self-education and professional

development, and poor teacher training quality (MOES, 2010; OECD, 2007, 2014; Silova, 2010). New policies and reforms have been gradually introduced to address these issues by education authorities (MOES, 2010; OECD, 2007, 2014). In the following subsections the analysis of the issues related to teaching profession is presented and implemented actions by the government that address them are examined.

Status of the teaching profession. Teaching profession has low status in Kazakhstan and is not considered to be prestigious in comparison with other OECD countries (Harris-Van Keuren, 2010; MOES, 2010; OECD, 2014). Candidates tend to choose teaching profession out of desire or dedication to becoming an educator and their choice to become teachers usually bases on the lack of the other specialties to choose from or lack of competencies to choose a different specialty (Harris-Van Keuren, 2010). Speaking more specifically, students who receive low scores in the Unified National Test to get education in the other field, choose teaching profession because a large amount of state grants is available to obtain teacher training (OECD, 2014). However, program delivery of teacher education is considered inferior to that of the other disciplines (OECD, 2014). In addition, Kazakhstani teachers face red tape in schools (Safavi, 1997) and complain about lack of time to devote for teaching due to highly bureaucratic nature of their job (OECD, 2007). Additionally, teachers wage is among the lowest in the country (OECD, 2014; Silova, 2010). All these obstacles and difficulties have influenced the prestige and the shortage of teachers in Central Asia region, including Kazakhstan (Silova, 2010).

According to the *State Program for Education Development 2011-2020*, enhancing prestige and status of teachers is one of the priority goals to achieve. In order to enhance teachers' status in the society different actions are planned to be carried out, such as ““Teacher of the Year”” contest, actions, joint projects with mass media, master classes,

forums of teachers-innovators, competitions, meetings of pedagogical dynasties, scientific-research workshops and symposiums, training workshops and round tables” (MOES, 2010, p. 29). The government aims to implement policies related to teacher training and their salaries that would help to enhance the prestige of teaching specialty.

Teacher wage. Literature evidences that teachers' wage is one of the most powerful instruments to attract and retain effective teachers (Figlio, 1997; Guarino, Santibanez & Daley, 2006; Hanushek, 2011). However, Kazakhstani teachers receive low salaries across the country (MOES, 2010; OECD, 2014). Even though the wage of teachers rose by 400% from 2000, it is considered to be among the lowest wages in the country and comprises only 60% of national average salary showing a big disproportion between teachers' wage and average wages in the other professions (MOES, 2010). In order to better understand the teacher wage structure, it would be appropriate to explore the term called “compression” (see Figure 1). There are two main categories, chronological and financial compression. Chronological compression concerns itself with the number of years from starting to maximum wage, whereas financial compression deals with the average difference in wage between starting and top salary.

While Quadrants I, II, and III include either competitive starting salary or a significant rise during career path, Quadrant IV does not attract people to become teachers from monetary perspective. All Central Asian countries are located in Quadrant IV. Teachers have low salary at the beginning of their career and they continue to remain low for more experienced teachers. So, there are no financial incentives to attract and retain people in teaching profession (Silova, 2010). As a result, this situation negatively influences the status of teachers and dissuades candidates –especially the more educated ones from choosing teaching as a career path and retaining at it (Figlio, 1997; Hanushek,

2011; Woessmann, 2011). The evidence of it is that only 50% of those who graduated from pedagogical institutes started to work in schools in Kazakhstan in 2003 (NHDR, 2004).

Figure 1. Salary Compression and Progression Matrix

QII Competitive Starting Wage And Compressed Salary Ladder (Retention Challenges)	QI Competitive Starting Wage And Progressive Salary Ladder (Competitively proportioned)
QIII Low Starting Wage And Progressive Salary Ladder (Attraction Challenges)	QIV Low Starting Wage And Compressed Salary Ladder (Attraction and Retention Challenges)

Source: Silova (2010, p. 184)

With the aim to attract and retain good teachers, different reforms concerning teacher wage are underway. For example, result-oriented mechanism of labor payment will be implemented with the aim to raise the quality of teaching that is hoped to bring the average salary of teachers close to those who work in private sectors (MOES, 2010). In addition, a new program for teacher professional development linked to salary raise was launched. The program comprises three levels of training: basic, intermediate and advanced. Teachers that successfully pass the basic level obtain a 30% salary increase; teachers who complete the intermediate level get 70% increase in their salary; and teachers that accomplish the advanced level receive a 100% increase in salary.

Teacher education. Teacher education is considered to be of lower quality than the education offered in other specialties in Kazakhstan (MOES, 2010; OECD, 2007, 2014; Silova, 2010). For instance, teaching staff and equipment are of better quality and training provision is of greater priority for those working in such fields like chemistry and physics, and economics (OECD, 2007). In addition, university students complain about the “poor learning environment, equipment and access to textbooks, the Internet and international opportunities” that characterizes teacher education (OECD, 2007, p. 116). Thus, education

content and teaching methodology should be updated and innovation educational technologies should be used to enhance the quality of delivering education (Kultumanova et al., 2012).

In addition, teachers face up with “inadequate opportunities for teachers to update subject knowledge, poor equipment and information resources, and lack of financial support for in-service professional development” (OECD, 2007, p. 28). According to the state policy, teachers in higher education field should be involved in professional development trainings every five years. However, public funding is not always sufficient to finance these programs, and teachers usually cannot afford to attend such trainings due to their low wages (OECD, 2007). It is stated in OECD report (2014) that there is no

coherent system that links detailed professional standards that reflect a shared understanding of what is considered to be accomplished teaching for different subjects and different levels, with standards for the attestation of teacher education programs, for regular teacher evaluation and attestation processes, and for the development of formal professional development plans (p. 38).

Instead of determining output standards and aims to accomplish by academic program, the government controls curriculum design, where almost 50% of curriculum subject delivery is designated by the government (OECD, 2007), which demotivates higher education providers to establish their own quality aims targets that deal with educational processes (OECD, 2007).

Major reforms have been implemented to enhance the quality of teacher education. One of the most important actions in this direction is the Bolashak program that recently started giving opportunities to study abroad in prestigious higher education institutions for those who choose majors in teaching (MOES, 2014). Furthermore, NIS Centre of Excellence was set up to develop curricular materials and conduct professional development training for secondary school teachers. In addition, the Republican Institute for Development of Leading and Research-pedagogic Staff of Education System has

updated professional development programs for teachers for teachers in the 14 institutes in the regions and Almaty and Astana cities since 2011 (Kultumanova et al., 2012).

Moreover, more than 8000 teachers received training on the use of electronic learning system during the lessons that was part of the project that introduced e-learning (Kultumanova et al., 2012). Also, the Ministry of Education plans candidates to take a creativity exam to determine their aptitude for teaching. Passing grade for school graduates for obtaining teacher specialty will be increased, and teachers obtaining Master's degree will be preferred at work. Finally, great attention will be paid to teachers' self-education, which will be illustrated in their portfolios (MOES, 2010).

Quality of Teaching in Kazakhstan

Abundant research demonstrates the importance of teachers and their influence on students' learning and achievement (Darling-Hammond, 2000; Rivkin, Hanushek&Kain, 2005; Rockoff, 2004). However, as illustrated above, the quality of teaching in Kazakhstan have been influenced by a number of issues, including:

- Low teacher status
- Low teacher salary
- School bureaucracy and red tape
- Inferior teacher education
- Low level of qualification of majority of the teachers
- Lack of motivation for self-development and professional development of teachers
- Insufficient material and resources in schools (Kultumanova et al., 2012; MOES, 2010; OECD, 2007; 2014).

The low quality of teaching in Kazakhstan has been also identified in the light of the poor results of Kazakhstani students in international comparative studies like the

Trends in International Mathematics and Science Study (TIMSS) in 2007, 2011 and the Programme for International Student Assessment (PISA) in 2009 and 2011 (OECD, 2014).

Therefore, along with the educational reforms that the government has recently initiated to improve the status of teachers and the quality of teaching, it is informative and instructive to investigate what characteristics and competencies an effective teacher should obtain to contribute to students' success that would help to facilitate the quality of teaching, and particularly, improve pre-service and in-service training provision in the development teachers' knowledge, skills and competencies.

Purpose of the Study and Research Questions

The purpose of this study is to explore the perceptions of teachers and students regarding the characteristics that define effective teachers in Kazakhstan, in terms of teachers' content knowledge, pedagogical knowledge and skills, and trait emotional intelligence. A definition of these variables is presented in the next section of the chapter.

This study seeks to address the following research questions:

- RQ1: What are the perceptions of secondary school teachers about the characteristics of effective teacher in terms of content knowledge, pedagogical knowledge and skills and trait emotional intelligence?
- RQ2: What are the perceptions of secondary school students about the characteristics of effective teachers in terms of content knowledge, pedagogical knowledge and skills and trait emotional intelligence?
- RQ3: How do the perceptions of teachers and students on these characteristics of effective teachers differ from each other?
- RQ4: How do the perceptions of teachers on these characteristics of effective teachers differ by gender, years of teaching experience and subject?

- RQ5: How do the perceptions of students on these characteristics of effective teachers differ by gender, grade and academic achievement?

The Definition of Terms

For the purposes of this study, definitions of terms are provided in order to establish the groundwork for further discussion. It is important to note that investigation into these terms will be necessary as the study progresses, specifically in Chapter Two, when many of the definitions outlined hereunder are examined in detail.

Effective teaching. Effective teaching refers to a set of teacher knowledge, skills, competencies and practices that contribute to the accomplishment of student, teacher, or schools educational goals (Goe, Bell & Little, 2008).

Content knowledge. Shulman defined content knowledge as “the amount and organization of knowledge present in the mind of teachers” (Shulman, 1986, p. 9). Speaking more specifically, content knowledge is referred to “a teacher’s understanding and application of the current theories, principles, concepts and skills of a discipline” (Kidwell, 2013, para. 15).

Pedagogical knowledge and skills. Throughout the study, pedagogical skills refer to “skills teachers use and the activities these skills generate to enable students to learn the knowledge and skills related to different subject areas” (CUREE, 2012, p. 2). In this study pedagogical knowledge and skills include variables such as student learning, lesson planning, instructional support, accommodating diversity, and classroom management (Choy et al., 2013; Wong, Chong, Choy & Lim, 2012). A definition of these variables is provided in Figure 2.

Figure 2. Pedagogical knowledge and skills

Variable	Definition
Lesson planning	<i>Writing lesson plans and selecting appropriate strategies</i>
Instructional strategies	<i>Selecting appropriate resources and assessments to support teaching</i>
Classroom management	<i>Managing student behaviors and discipline</i>
Accommodating diversity	<i>Catering to students' different needs</i>
Student learning	<i>Using different strategies to capture students' interest and stimulate their thinking</i>

Source: Adapted from Choy et al. (2013, p. 72); Wong et al. (2012, p. 111)

Trait emotional intelligence. Throughout this research, the term trait emotional intelligence (trait EI) is used to refer to “a constellation of emotional self-perceptions located at the lower levels of personality” (Petrides, Pita & Kokkinaki, 2007 p. 273). Trait EI includes four factors: well-being, self-control, emotionality, and sociability.

Significance to the Field

This study is significant since it seeks to find out the perceptions of teachers and students on the characteristics that define effective teachers and gives participants an opportunity to express their opinion on the influence of teachers' knowledge, characteristics, and competencies on students' academic achievement.

In addition, the amount of research relating to particular effective teachers' knowledge, characteristics and competencies is not extensive in Kazakhstan and Central Asia. It is hoped that this study will contribute to the literature and discussions of teachers' characteristics that make them effective and how these influence students' academic achievement.

Finally, the study will provide valuable information for stakeholders involved in education sector like teachers, school leaders and teacher development curriculum

designers. With regard to Kazakhstan's search for new meanings and improved outcomes from the education sector, it is important, as it has been said before, to investigate what teachers' knowledge, characteristics and competencies are required in the classroom to drive Kazakhstan's education reform policies forward. The study may lead to a reappraisal and rethinking of pre-service and in-service training provision to develop teachers' knowledge and competencies.

Overview of Study

The overall structure of the study takes the form of five chapters, including this introductory chapter. Chapter One provides the background of the problem that prompted this study, introduces the purpose of the study and research questions that have to be answered in this study. It also provides the definitions of terms that are widely used in the research and presents the significance of the study to the field. Chapter Two reviews the literature that would help to better understand what characteristics define effective teachers and have a positive impact on students' academic achievement. This chapter examines in greater detail the nature of content knowledge, pedagogical knowledge and skills, trait emotional intelligence and what research has revealed about the links between these characteristics and effective teaching and learning. Chapter Three presents the methodology of this study, including a justification of the research design, a description of the participants and sampling procedures, the methods used to gather the data, and the data collection procedures and data analysis. Chapter Four presents the results of this study and aims to provide an answer to the research questions posed in the first Chapter. Finally, Chapter Five presents the discussion of the results, which would let to make recommendations not only for further research, but also for future courses of action in the classroom and at the school level in pre-service and in-service teacher development and training. Also, the limitations and educational implications of the study are provided.

Chapter 2: Literature Review

Introduction

In the previous chapter, the background and purpose of the current study was presented. The research questions were introduced and key definitions were provided. The purpose of this study is to examine the perceptions of teachers and students regarding the characteristics that define an effective teacher. This study aims to answer five research questions: 1) What are the perceptions of secondary school teachers about the characteristics of effective teachers in terms of content knowledge, pedagogical knowledge and skills, and trait EI? 2) What are the perceptions of secondary school students about the characteristics of effective teachers in terms of content knowledge, pedagogical knowledge and skills and trait EI? 3) How do the perceptions of teachers and students on these characteristics of effective teachers differ from each other? 4) How do the perceptions of teachers on these characteristics of effective teachers differ by gender, teaching experience and subject? 5) How do the perceptions of students on these characteristics of effective teachers differ by gender, grade, and academic achievement?

This chapter is divided into five sections. The first section overviews the studies regarding effective teaching and learning. The second section sheds the light on the studies about teachers' role in effective teaching and learning and which characteristics define effective teachers. The following three sections provide important insights into the analysis of the literature regarding teachers' content knowledge, pedagogical skills and trait EI and their relationship with effective teaching and learning. Finally, the theoretical framework of this study is presented.

Effective Teaching and Learning

This section provides a review of the literature of the most relevant studies contributing to the conceptualization of effective teaching and learning. When the term

effective is discussed, it is usually referred to achieving an intended result and sometimes even exceeding it. Skinner (2010) emphasizes the importance of understanding the difference between efficient and effective teaching. Efficient teaching refers to doing things in a way that is “technically sound and not wasteful of resources”, whereas effective teaching refers to achieving desired outcomes (Skinner, 2010, p. 5). Efficient teaching may not always lead to desired results. Many educational reforms that aim to contribute to effective teaching and learning usually contribute to their efficiency rather than their effectiveness (Hayes, Mills, Christie & Lingard, 2006). It is noticed that sometimes the investments done to improve education outweigh the achieved results (Skinner, 2010). Therefore, it is important to understand the core domains that lead to effective teaching and learning. Research indicates that teaching and learning are complicated activities and there are different factors that influence their effectiveness. Thus, there is no consensus in the literature regarding what is considered to be effective teaching and learning.

Skinner (2010) emphasizes five aspects contributing to effective teaching and learning, which are “aims and values, judgments about context, teaching strategies and skills, subject knowledge” and “environment for learning” (p. 19). Firstly, teachers should realize the goals and values of teaching and learning. Being aware of the context and conditions at place during teaching and learning, a teacher should know the teaching subject and incorporate strategies and skills to make effective learning happen in a stimulating environment.

With regard to the aspects that should be taken into account when discussing effective teaching and learning, McBer (2001) claims that there are three main factors, which can be regulated by teachers: teaching skills, professional characteristics, and classroom climate. Although McBer’s model of effective teaching and learning is similar to

Skinner's one, McBer does not mention the idea that a teacher should have subject matter knowledge to teach effectively.

In broader terms, James and Pollard emphasize 10 principles of effective teaching and learning:

- Equipping learners for life in its broadest sense
- Engaging students with valued forms of knowledge
- Recognizing the importance of prior experience and learning
- Requiring the tutor to scaffold the learner
- Using assessment as a means of advancing learning
- Promoting the active engagement of the learner
- Fostering both individual and social processes and outcomes
- Recognizing the significance of informal learning
- Depending on and encouraging tutors to continue to learn
- Demanding consistent policy frameworks with support for teaching and learning as their primary focus (as cited in Coffield, 2008, p. 12)

His 10 principles involve not only the importance of teachers having the ability to develop students cognitively, socially and emotionally, but also involves appropriate educational policies that would contribute to improving teaching and learning.

Summing up, there are common features of effective teaching and learning that are consistently repeated across the literature. The importance of teachers' subject matter knowledge, teaching strategies and skills along with creating classroom climate that facilitates learning is emphasized over the studies. Teachers are in power of managing effective teaching and learning principles and characteristics described above. Therefore, teachers play a major role in attaining desired educational results and, consequently, it is important to understand what kind of teacher is needed in the classroom that will be able to

contribute to student outcomes. The following section sheds the light on the literature that says about what characteristics a teacher should possess to be effective.

Characteristics of Effective Teachers

In this section, a discussion of the characteristics that define effective teachers is presented. This section is important for the current study since it reveals various perspectives on how effective teacher is defined in the literature and what common and different features of effective teachers are presented in the studies that will contribute to establishing theoretical framework for the study.

There is a widespread agreement on teachers' impact on students' academic achievement across the studies done in this field (Brophy, 1986; McBer, 2001; Peterson, Fennema, Carpenter, &Loef, 1989; Sanders & Rivers, 1996; Wang, Haertel& Walberg, 1997). For example, it is considered that "the most effective factor affecting student learning is the teacher" (Wright, Horn, & Sanders, 1997, p. 63). In this sense, Gladwell (2009) states that the significance of excellent schools is only minimal without the presence of excellent teaching staff, and similarly, children are considered to have negative experiences with bad teachers, regardless of the school's overall quality. Despite the fact that the importance of effective teachers' developing students' academic achievement is understood, debates are still raised on what specific characteristics and behaviors of a teacher pertain to student learning and achievement.

According to Killen (2006), in order to be an effective teacher one should possess four forms of knowledge. Firstly, a teacher should know the subject he or she teaches and should be aware of how to apply this knowledge. Secondly, a teacher should know how students learn differently. Thirdly, a teacher should have general pedagogical knowledge that would be helpful for students' learning. Lastly, a teacher should obtain pedagogical content knowledge, which refers to understanding how to be effective at teaching specific

subjects. In contrast, Stronge (2007) reviewed a series of studies about effective teacher characteristics and noticed that despite the importance of instructional strategies, classroom management and other pedagogical skills, students mention mostly teachers' "social and emotional behaviors" as the key factor influencing their outcomes (p. 22).

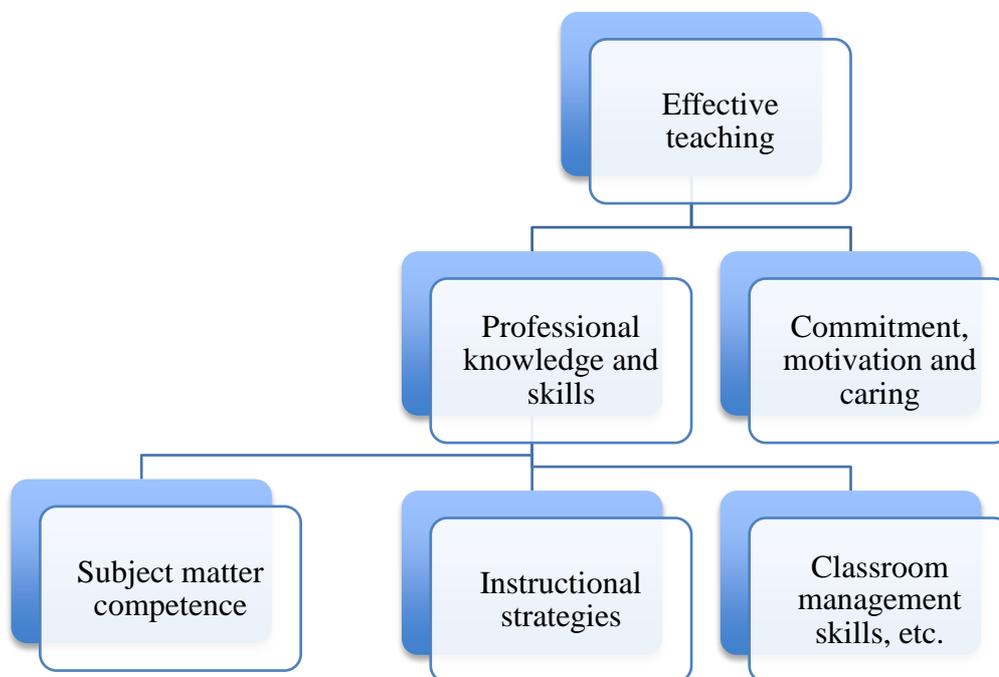
Regarding teachers' perceptions about effective teacher characteristics, over 100 Georgian pre-service teachers expressed similar opinions about the characteristics of an effective teacher, mentioning such attributes and personality traits like: "student-centered, effective classroom and behavior manager, competent instructor, ethical, enthusiastic about teaching, knowledgeable about subject, professional" (Minor, Onwuegbuzie, Witcher & James, 2002, p. 119). In addition, Walker (2008) conducted a fifteen year long longitudinal study on what makes an effective teacher based on pre-service teachers' perceptions and found 15 characteristics that are consistently repeated over written essays, which are: "prepared, positive, hold high expectations, creative, fair, display a personal touch, cultivate a personal touch, compassionate, have a sense of humor, respect students, forgiving, admit mistakes" (Walker, 2008, pp. 64-66). In Walker's study, (2008) pre-service teachers named mainly positive personality traits rather than professional knowledge and skills when describing effective teacher characteristics.

The study conducted among students about effective teacher characteristics revealed that effective teachers have professional competence, teaching ability, positive personality characteristics, while ineffective teachers have professional competence, but do not score high in the other three qualities, especially in interpersonal relationships and personality characteristics (Tang, Chou & Chiang, 2005). Tang et al. (2005) concluded that teachers' relationships with students and their personal characteristics serve as a gap that ineffective teachers should fulfill.

In conclusion, the studies related to description of effective teacher characteristics emphasized mainly three areas that are important for effective teachers, which are: their content knowledge, pedagogical knowledge and skills as well as positive personality characteristics.

Integrating some of the ideas presented above, Santrock (2011) presents two main components that define effective teaching: professional knowledge and skills, and commitment, motivation and caring (see Figure 3).

*Figure 3.*Effective teaching



Source: Santrock, 2011, p.6

Professional knowledge and skills include “subject matter competence, instructional strategies, thinking skills, goal setting and instructional planning, developmentally appropriate teaching practices, classroom management skills, motivational skills, communication skills, paying more than lip service to individual variations, working effectively with students from culturally diverse backgrounds, assessment knowledge and skills, and technological skills” (Santrock, 2011, pp. 6-11). In

general, this component refers to teachers' profound content knowledge and their pedagogical knowledge and skills. Commitment, motivation, and caring, on the other hand, refers to teachers' self-efficacy, their ability to control emotions and not let negative emotions decrease their motivation, as well as the capability of establishing a positive and caring atmosphere in the classroom (Santrock, 2011). Thus, Santrock's effective teaching model will be used as theoretical framework in the current study. In the next section, the literature about how teachers' content knowledge, pedagogical knowledge and skills, and trait EI influences effective teaching and learning is analyzed.

Teachers' Content Knowledge and Effective Teaching and Learning

There is great support from the literature indicating that teacher's expertise of their taught subject is one of the essential components to becoming an effective teacher and contributing to students' learning (Ball, Thames & Phelps, 2008; Grossman & Schoenfeld, 2005; Metzler & Woessmann, 2012; Minor et al., 2002; Peterson, et al., 1989). According to Stronge (2007), teachers cannot teach if they do not know the subject. Similarly, Darling-Hammond (1999) described a teacher that can contribute to students' learning indicating that he or she should firstly know and understand a subject he or she teaches, and also know how to use this knowledge and deliver it to students. Moreover, Woolfolk (2014) considers that a teacher who has better grasp of content knowledge is "clearer, more organized, and more responsive to student questions" (p. 562). In addition, Stronge (2007) thinks that a teacher who is more aware of his or her subject is better at making students interested in learning and further encourages them to learn the subject. Besides, research indicates that a teacher who is knowledgeable in his or her subject area tends to stimulate higher-order thinking among students and conduct more student-focused activities in the classroom (Wenglinsky, 2000).

A large amount of studies highlight the importance of teacher certification for

effective teaching and learning, where pre-service teachers' subject knowledge development and enhancement takes place (Alexander & Fuller, 2004; Darling-Hammond, 1999; Wayne & Youngs, 2003). Brunsberg (2013) found that teachers' level of subject knowledge had an effect on students' literacy achievement. However, this relationship appears to be different depending on the subject domain. A study conducted in Peru showed that teachers' knowledge of reading had no effect on 6th-grade students' achievement in reading, but teachers' mathematics knowledge significantly influenced students' performance in mathematics (Metzler & Woessmann, 2012). These results coincide with the statement that teachers who had a major or minor related to the subject they teach have students with higher academic results, especially in science and mathematics (Druva & Anderson, 1983; Monk, 1994; Wenglinsky, 2000).

Regarding teachers' opinions about their content knowledge and its relationship with effective teachers, teachers of numeracy reported that it is of crucial importance for a teacher to know the subject they teach (Askew, Brown, Rhodes, Johnson & William, 1997). Students also seem to recognize subject knowledge as an important characteristic of effective teacher (Peart & Campbell, 1999; Rock, 1997).

The broad acceptance of subject knowledge as the main factor of one's success can be traced to the traditional approach of teaching. The subject matter knowledge was considered of the utmost importance for teachers, probably due to predominance of teacher-centered, authoritarian education, where teachers were thought to be the source of knowledge (Skinner, 2010). For too long, students have been obliged to sit passively and be involved in rote learning and memorizing necessary and unnecessary information (Santrock, 2011). Despite the fact that there is no doubt that subject matter is important for effective teaching, it is considered to be not enough (Santrock, 2011). Teacher training programs that focus mostly on developing content knowledge are considered less effective

than the ones that focus more on developing pedagogical skills (Stronge, 2007). The evidence for this can be seen from one of the study that demonstrates that a teachers' content knowledge is arguably a lesser indicator of students' progress in subjects like math, rather their pedagogical skills (Baumert et al., 2010). Therefore, the current study further investigates the literature that sheds the light on what other characteristics, skills and competencies a teacher should have for contributing to effective teaching and learning. The following section discusses teacher pedagogical skills and its influence on student achievement.

Teachers' Pedagogical Knowledge and Skills on Effective Teaching and Learning

Abundant literature supports the idea that teachers' pedagogical knowledge and skills are crucial for effective teaching (Freiberg, 2002; Kleickmann et al., 2013; Shulman, 1994; Tamir, 1988). For example, Darling-Hammond (1999) indicates that students, whose teachers had more profound understanding and knowledge about learning and teaching processes, show better achievement and progress. In the same direction, the study by Peterson et al. (1989) found a strong positive relationship between first-grade teachers' pedagogical content beliefs, teachers' pedagogical content knowledge, and students' achievement.

Although there is a lot of evidence in the literature that supports the importance of teachers' pedagogical knowledge and skills for effective teaching and learning, there is no agreement about what specific pedagogical knowledge and skills define effective teachers. In this study, Wong's et al (2012) theoretical framework is used to analyze pedagogical content and skills that define effective teachers, including student learning, lesson planning, instructional support, accommodating diversity, and classroom management.

Student learning. Teachers who understand how students learning happen and know how to make use of it are considered to be more effective (Santrock, 2011;

Woolfolk, 2014). According to several authors, teachers should know how students learn best taking into account their learning styles, interests, and developmental levels to contribute to effective teaching and learning (e.g., Santrock, 2011; Woolfolk, 2014). In addition, teachers should understand how to attract students' attention and interest during the lesson and make them think in a critical and creative way (Wong et al., 2012). According to Rock (1997), students believe that a competent teacher makes lessons interesting.

Lesson planning. Teachers who plan their lessons are considered to be more effective than those who do not (Baylor, Kitsantas, & Chung, 2001; Farrell, 2002, Richards, 1998; Santrock, 2011; Stronge, 2007; Woolfolk, 2014). Richards (1998) highlights the significance of lesson planning for effective teaching and learning, stating “the success with which a teacher conducts a lesson is often thought to depend on the effectiveness with which the lesson was planned” (p. 103). Similarly, Farrel (2002) considers lesson planning the first step in achieving effectively desired results. Effective teachers aim to achieve high and specific results and they plan how to do it (Anderman& Dawson, 2011). Purgason lists the advantages of lesson planning, such as helping a teacher to think about organization of the lesson and feel more self-confident and secure during the lesson (as cited in Santrock, 2011, p. 31). It also helps to adapt the lessons based on students' differences, which definitely is advantageous for students (Santrock, 2011).

Instructional strategies. Teachers' instructional strategies play an important role in teaching and learning processes (Santrock, 2011; Woolfolk, 2014). According to Santrock (2011), instructional strategies can be based on two main teaching approaches, which are direct instruction and constructivist approaches. In direct instruction approaches, teachers need to strictly direct and control students, while in constructivist approaches teachers let students themselves construct their knowledge, with less focus on teacher

monitoring. Teachers can be good at instructional strategies using any kind of approach that can also contribute to their effectiveness (Santrock, 2011).

Classroom management. A considerable amount of studies indicates that teachers' ability to manage the classroom leads to better teaching and learning (Morris, Raver, Millenky, Jones & Lloyd, 2010; Santrock, 2011; Stronge, 2007; Woolfolk, 2014). Classroom management includes managing "room arrangement, discipline, creating routines, and a plan to teach students how their learning environment is organized" (Stronge, 2007, p.39). Woolfolk (2014) discusses the benefits of classroom management. Firstly, it creates structures and rules for behavior in particular activities that are conducive for learning. For example, students can behave one way when have reading activities and in a different way while discussing particular established classroom rules. Secondly, it creates more time for actual learning and does not waste time on different disruptions. Thirdly, it provides an opportunity for students to develop self-management skills. Additionally, Santrock (2011) states that good classroom management contributes to students' higher order thinking and learning. Despite differences in preferences of particular classroom management styles, Minor, Onquegbuzie, Witcher & James (2002) found that teachers named classroom management skills among the most important features of competent teachers.

Accommodating diversity. Teachers who are aware of students' diversity, incorporate different activities in their lessons while taking into account students' different abilities, socio-economic status, cultural, ethnic and linguistic backgrounds, and take advantage of students' differences are able to contribute to students' outcomes more than those who cannot (Santrock, 2011; Woolfolk, 2014). O'Hara and Pritchard (2008) claim that a competent teacher should be aware of students' differences and consider them when planning and conducting lessons, though, this might be a challenging task for teachers to

accomplish that requires their knowledge, skills and efforts. Woolfolk (2014) believes that teachers need to adapt their lessons based on “student differences in readiness, interests, and learning needs” (p. 586). In addition, Darling-Hammond (1999) considers that a teacher should know students’ learning styles and their social and cultural background to be able to teach students effectively and conduct lessons in meaningful ways so that students can understand the material delivered. According to Stronge (2007), teachers should understand that students learn in different ways and should incorporate differentiation of instruction.

Even though content knowledge and pedagogical knowledge and skills are the features that have received more attention in relation to the characteristics that define effective teachers, other teacher characteristics have also shown increasing interest in this regard. One of these refers to the socio-emotional competences of teachers. The following section discusses teachers’ socio-emotional competencies and its influence on teaching and learning effectiveness.

Teachers’ Trait Emotional Intelligence and Effective Teaching and Learning

Considerably little attention has been paid to the role of socio-emotional competences of teachers in their relationship with effective teaching and learning. However, a growing number of theoretical and empirical arguments indicate that teachers’ socio-emotional characteristics are important and contribute significantly to students’ outcomes (Corcoran & Tormey, 2012; Hargreaves; 1998; Leyden & Shale; 2012). This idea is well expressed by Hargreaves (1998), who states that teaching is an emotional profession in nature and, therefore, understanding one’s own emotions and students’ emotions during the teaching and learning processes is crucial in terms of effective teaching and learning. In this sense, it is important that teachers understand, for example, whether their students are bored and need to be encouraged or, otherwise, need to be

cooled down (Corcoran & Tormey, 2012). In support of this idea, Maharana (2013) claims that the quality of a school mostly depends on “the professional competence and emotional stability of teachers” (p. 3).

Teachers’ socio-emotional competences (e.g., manage one and others’ emotions, feel and show empathy for others, establish and maintain positive relationships in the classroom) seem to have a major impact on creating positive learning environments that greatly increases the quality of teaching and learning. In this sense, Jennings & Greenberg (2009) suggest that “socially and emotionally competent” teachers promote “supportive and encouraging relationships with their students”, encourage “cooperation among students”, and behave “as a role model for respectful and appropriate communication” (p. 492). Such teachers can easily establish a positive classroom environment that facilitates learning and good academic achievement, while those teachers who do not have or lack social skills have students who are lower performing and less focused on academic tasks given by teachers (Marzano & Pickering, 2003). According to Leyden and Shale (2012), creating good relationships with students and understanding and caring about students’ feelings and needs also influences students’ behavior and their social and academic life in a positive way. In Maslow’s hierarchy of needs (1962), the satisfaction of the need to belong to a particular group of people in society goes prior to self-esteem and self-actualization needs. It is therefore important for a teacher to establish close and trustworthy relationships with students and make them feel like they belong to a school or classroom that would stimulate them to strive for self-actualization which can be expressed in the form of high academic achievement (Woolfolk, 2014).

The theory of emotional intelligence has demonstrated to be a valuable framework for analyzing socio-emotional variables related to teacher quality and student outcomes (e.g., Ferrando et al., 2010; Mavrovelli & Sanchez, 2011; Platsidou, 2010). In this study,

trait emotional intelligence theory will be used to analyze the emotional and social characteristics that define effective teachers as perceived by teachers and students.

Emotional intelligence is a relatively new concept that takes its roots from social intelligence and multiple intelligences theories. Thorndike (1920) proposed the term of social intelligence and defined it as “the ability to understand and manage men and women, boys and girls -- to act wisely in human relations” (p. 228). Gardner (1983) introduced the theory of multiple intelligences, which consists of more than seven distinct intelligences, where two of them, intrapersonal and interpersonal intelligences (i.e., understanding of one’s own emotions and others and knowing how to handle them) provided the basis for the development of the term emotional intelligence. Later on, Mayer and Salovey (1997) coined the term, and Goleman (1995), Bar-On (1997) and Petrides (2001) proposed various definitions and theories of emotional intelligence.

As indicated above, the theory of trait emotional intelligence will be used in this study to analyze the characteristics that define effective teachers as perceived by teachers and students in Kazakhstan. Trait emotional intelligence is defined as “a constellation of emotional self-perceptions located at the lower levels of personality” (Petrides, Pita & Kokkinaki, 2007 p. 273). There are fifteen facets that are included under the trait emotional intelligence domain: adaptability, assertiveness, emotion perception, emotion expression, emotion management, emotion regulation, impulsiveness, relationships, self-esteem, self-motivation, social awareness, stress management, trait empathy, trait happiness and trait optimism (Petrides, 2010, p. 137), that can be further organized into four main factors: well-being, self-control, emotionality, and sociability (Freudenthaler, Neubauer, Gabler, Scherl & Rindermann, 2008).

Trait emotional intelligence has been shown to be related to relevant variables related to quality teaching, such as higher levels of job satisfaction, commitment and

performance and teacher self-efficacy, as well as lower levels of burnout and depression. For example, Landa, López-Zafra, De Antoñana & Pulido (2006) evidenced that teachers who perceived their trait EI higher tend to have better job satisfaction and less burnout. Platsidou's (2010) study results support the idea that teachers, who perceived their EI higher, are more satisfied with their job, tend to accomplish more tasks and experience less burnout. In addition, teachers' trait EI seems to predict higher levels of self-efficacy (Nikoopour, Farsani, Tajbakhsh & Kiyai, 2012). Bandura defines self-efficacy as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performance" (Bandura, 1986, p. 391). And research shows that self-efficacy influences motivation and performance (Schunk, 1995).

Conclusion

This chapter provided a review of the literature on effective teaching and learning and characteristics and competencies of teachers that define them as effective. The review of the literature reveals a wide range of effective teacher characteristics that can be summarized into two main features: (1) teachers' subject matter knowledge and (2) pedagogical knowledge and skills. In addition, the review of the studies included in this chapter evidences a growing interest in the study of how the socio-emotional competencies of teachers contribute to the improvement of the quality teaching and learning. Among all the models analyzed, Santrock's (2011) seems to be the most comprehensive and the only one that includes these three dimensions in the study of the characteristics that define effective teachers, and therefore will be used as a general theoretical framework in this study. The following chapter presents the methodology of the study, including a description of the research design of the study, the participants and sampling procedures, the instrument used to gather the data, and the procedures and methods that were used to analyze the data.

Chapter 3: Methodology

Introduction

This chapter describes the methodology used in the current study. The purpose of this study was to examine the perceptions of teachers and students regarding the characteristics that define effective teachers in Kazakhstan, in terms of teachers' content knowledge, pedagogical knowledge and skills, and trait EI. The research questions of this study seek to find out the perceptions of teachers and students about the characteristics of effective teacher in terms of content knowledge, pedagogical knowledge and skills, and trait EI; how students and teachers' perceptions regarding effective teacher characteristics in terms of content knowledge, pedagogical knowledge and skills, and trait EI differ among each other and whether demographic characteristics of teachers and students' have an influence on their perceptions.

This chapter provides information about the research design utilized in the study and describes the sample of the study as well as the design of the instrument that has been used to gather the data. Additionally, it also informs about the actions done to assure that the study was conducted in an ethical way and the accomplished procedures for data analysis. The current chapter is organized as follows: research design, research sample, instrumentation, procedure, and data analysis.

Research Design

This study employed quantitative, cross-sectional survey design with the aim to examine teachers and students' perceptions regarding effective characteristics of teachers in terms of content knowledge, pedagogical skills and trait EI. The rationale for using quantitative, particularly, cross-sectional survey design lies in several reasons. Survey design is considered to be flexible and allows finding answers for a big range of various questions (Muijs, 2011). It, in particular, helps to measure teachers' and students'

perceptions about effective teacher characteristics in terms of three variables, such as content knowledge, pedagogical content and skills (lesson planning, instructional strategies, classroom management, accommodating diversity and student learning) as well as trait EI. Moreover, Creswell (2012) claims that cross-sectional survey design is appropriate when “current attitudes, beliefs, opinions, or practices” regarding particular question has to be found (p. 377). As the purpose of this study is to learn about teachers and students perceptions about effective teachers and not personal experiences of individuals, this approach seems most appropriate. Additionally, for the purposes of my study, a large amount of data is needed, which can be more efficiently conducted with the use of survey design (Muijs, 2011). Furthermore, quantitative survey design is usually used to collect precise numerical data and, therefore, the results in quantitative study are considered to be more objective (Cresswell, 2012; Muijs, 2011). Additionally, survey research design is considered to be an inexpensive method to collect the data (Nardi, 2006). Finally, survey design provides an opportunity to gain more valid data for this research, conducting anonymous study that is more difficult to do while utilizing interviews or observations (Cresswell, 2012; Muijs, 2011). Given the extent of my research, its questions and objectives, I believe that cross-sectional survey design would give me advantage in managing the scope of the necessary data and data collection procedures in terms of time and cost. Therefore, cross-sectional survey design was selected to fulfill the purposes of this present study.

Research Sample

The total sample of the current research consisted of 559 participants (434 students, 125 teachers) from six different schools of Kostanay city in northern Kazakhstan. Non-probability sampling, particularly convenience sampling (availability) was used in the study. The response rate among teachers and students was 86% and 91% respectively. Forty-three participants did not complete the questionnaire in a satisfactory manner and were excluded

from the final sample. These excluded survey forms included not fully answered questionnaires.

Table 1 provides information on the demographic characteristics of teachers participating in the study. Regarding teachers' gender, the majority of participating teachers are female (90.4 %). Concerning teachers' years of professional experience the majority of teachers (70%) had more than 10 years of teaching experience. Around 14% of teachers had from 5 to 10 years of teaching experience, while almost 17% of teachers had no more than 4 years of teaching experience. With reference to teachers' teaching subjects, the majority of teachers, who participated in the study, teach languages, lesser number of teachers teach exact sciences, social sciences and natural sciences, and the least number of teachers teach information and communication technologies.

Table 2 illustrates demographic characteristics of students participating in the study. Regarding students' gender, almost the same number of males and females participated in the study. With respect to students' grade, the greatest number of students studied at grade 10, while the least number of students studied at grade 8. With regard to students' academic achievement, they were asked to rate their academic achievement for the previous semester using a 1-to-5 ranking scale similar that used in Secondary education in Kazakhstan ($M = 4.03$; $SD = .48$, Minimum = 3, Maximum = 5). Consequently, students rating were used to divide students into three groups as follows: low academic achievement (ranging from 3 to 3.66); middle academic achievement (varying from 3.67 to 4.31); and high academic achievement (from 4.32 to 5).

Table 1

Demographic Characteristics of Participating Teachers (n = 125)

Measure	Frequency	Percent
Gender		
Female	113	90.4
Male	12	9.6
Years of teaching experience		
0-4 years	21	16.8
5-10 years	17	13.6
More than 10 years	87	69.6
Teaching subject		
Social sciences	23	18.4
Natural sciences	22	17.6
Information and communications technology (ICT)	7	5.6
Exact sciences	28	22.4
Languages	45	36

Table 2

Demographic Characteristics of Participating Students

Measure	Frequency	Percent
Gender		
Male	204	47
Female	230	53
Studying grade		
8	73	16.8
9	120	27.6
10	139	32
11	102	23.5
Academic achievement		
Low	99	22.8
Middle	223	51.4
High	112	25.8

Instrumentation

A questionnaire was designed to assess teachers' and students' perceptions about effective teacher characteristics, such as having content knowledge, pedagogical knowledge and skills along with trait EI. Prior to distribution of this questionnaire some procedures were implemented. First, guidelines and procedures for the creation of the questionnaire

were discussed with the supervisor of this Master Thesis. Second, a review of the literature on effective teaching and learning and the characteristics of effective teachers were done to create the conceptual framework for the study. Also, a review of existing instruments and materials on the topic was performed during the process of writing the items of the questionnaire, which included the Pedagogical Knowledge and Skills in Teaching Survey (PKST; Wong, Chong, Choy & Lim, 2012), the Trait EI Questionnaire 360 SF (TEIQue 360 SF; Petrides&Furnham, 2009), and a questionnaire on teachers' in-depth mathematical pedagogical content knowledge (Adedoyin, 2011). Third, a pilot study was conducted, where six students and five teachers with similar demographic characteristics of the intended sample of this study were asked to complete the questionnaire and provide critical feedback on the clarity and appropriateness of the instrument items. Finally, the questionnaire was reviewed taking into account the feedback provided during the pilot study and subsequent discussions with the supervisor of this project.

The final version of the questionnaire included 55 items that accounted for seven facets of effective teachers (i.e., content knowledge, student learning, lesson planning, instructional strategies, classroom management, accommodating diversity, and trait EI). Also, additional questions on teachers' and students' demographic characteristics were included in the questionnaire (see Appendix A). Table 3 provides information about the main variables of this study.

Research Procedures

This section describes the undergone procedures to ensure the study will not raise ethical issues. Before being permitted to collect the data, the researcher submitted the Research Approval Application Form to the NUGSE Research Committee, which included information about the major components of the research project, procedures to ensure anonymity of participants and confidentiality of the data, and risks and benefits of the

research. After receiving approval from the NUGSE Research Committee, school principals were contacted and provided with a letter that asked permission to conduct the research. When approvals of the school principals were received, teachers and students were provided with informed consent forms. In addition, students under 18 years old were given parents' consent forms so that parents provided written approval of their consent to let their children take part in the study. Informed consent forms included the information mainly about the purpose of the study, voluntary participation, risks and benefits associated with the study, and the anonymity of participants (see Appendix B). The participants were provided with contact information of the researcher and the NUGSE Research Committee in case they had questions, concerns or complaints about the study. Secondary school principals were promised to get general study results by the end of the study. Only after getting back participants' signed informed consent, participants were asked to complete the instruments designed for this research to measure their perceptions on the influence of teachers' content knowledge, pedagogical skills and trait emotional intelligence on students' academic achievement.

Table 3

Content Knowledge, Pedagogical Knowledge and Skills and Trait EI Description

Measure	Description	Sample items
Content knowledge (10 items)	“The amount and organization of knowledge present in the mind of teachers” (Shulman, 1986, p. 9)	Exhibit good knowledge of his/her content.
Lesson Planning (5 items)	“Writing lesson plans and selecting appropriate strategies” (Choy et al., 2013, p. 72)	Prepares for the lesson in advance.
Instructional Strategies (8 items)	“Selecting appropriate resources and assessments to support teaching” (Choy et al., 2013, p. 72)	Acquires appropriate teaching materials for the lessons.
Classroom Management (4 items)	“Managing student behaviors and discipline” (Wong et al., 2012, p.111)	Manages student discipline.
Accommodating diversity (6 items)	“Catering to students’ different needs” (Wong et al., 2012, p. 111)	Responds sensitively to different student needs.
Student learning (7 items)	“Using different strategies to capture students’ interest and stimulate their thinking” (Wong et al., 2012, p. 111)	Develops students’ interest in learning.
Trait EI (15 items)	“Emotion- related dispositions and self-perceptions measured via self-report” (Petrides, Pita & Kokkinaki, 2007 p. 273)	Has very good social skills.

Data Analysis

This section describes the steps conducted to analyze the collected data. After data collection was finished, the process of sorting and coding of the answered questionnaire started. Not fully answered questionnaires were disregarded from the study. Further, participants' answers were imputed into the statistical analysis software and checked for extreme scores and missing data using frequency distributions. Missing data was substituted with average numbers for the question for all participants of the study. Next, the internal consistency reliability of the test scores was tested using Cronbach's alpha coefficient. Descriptive statistics (minimum, maximum, mean, standard deviation, and average score) were used to answer RQ1 and RQ2. Average scores were calculated by dividing the mean score on the number of items a certain category had. To answer RQ3, mean scores and standard deviations were calculated for both teachers and students' responses and an independent samples *t*-test was then conducted to compare these scores. For answering RQ4 and RQ5, a series of independent samples *t*-test and one-way between-subject analyses of variance (ANOVA) were conducted. In addition, post hoc analyses using the Scheffe test were used to further explore group differences. Data analysis was performed using IBM SPSS Statistics Version 22.

Conclusion

This chapter shed the light on the methodology utilized in the current study. It provided information about the research design utilized in the study and described the study sample and the instrument design, which has been used to gather the data. The chapter also described the undergone procedures related to preventing ethical issues of the study. Finally, it described the actions done to analyze the collected data in the statistical software. The following chapter presents the research findings.

Chapter 4: Research Findings

Introduction

This chapter presents the research findings of the current study, which aimed to find out the perceptions of teachers and students about the characteristics that define effective teachers in Kazakhstan in terms of teachers' content knowledge, pedagogical knowledge and skills, and trait EI. The research questions of the current study aim to examine the perceptions of teachers and students on the influence of the characteristics of effective teachers in terms of content knowledge, pedagogical knowledge and skills, and trait EI; how students and teachers' perceptions about effective teacher characteristics in terms of content knowledge, pedagogical knowledge and skills, and trait EI differ among each other, and if demographic characteristics of teachers and students influence their perceptions. Firstly, results from the reliability analysis of the scores are presented. Secondly, the first and second research questions are analyzed with the help of descriptive statistics. Thirdly, inferential analyses are used to answer the third, fourth and fifth research questions.

Reliability of Scales

This section provides analysis of the reliability of the instrument, which was used for the purposes of this study. The researcher developed a 55-item questionnaire for this study to assess teachers' and students' perceptions about the characteristics that define effective, such as content knowledge (10 items), pedagogical knowledge and skills, which included lesson planning, instructional strategies, classroom management, accommodating diversity and student learning (30 items) and trait EI (15 items).

The internal consistency of the scores was tested using Cronbach's alpha coefficients. The results of the reliability analyses are presented in Table 1 and evidenced that the scores for all the scales and subscales of the instrument can be considered reliable and highly reliable for all subscales of the instrument, except on the score for the subscale

lesson planning, whose reliability was below .70.

Table 4

Reliability Analysis for the Scores of the Scales and Subscales of the Instrument

Subscale	Cronbach's Alpha	N of items
Content knowledge	.81	10
Lesson planning	.65	5
Instructional strategies	.73	8
Classroom management	.70	4
Accommodating diversity	.70	6
Student learning	.77	7
Trait EI	.86	15

Note. $\alpha > .90$ is considered to be very highly reliable; α between .80 - .90 is highly reliable;

α from .70 to .79 is reliable; α between .60 - .69 is minimally reliable; $\alpha < 0.60$ is unacceptably

low reliable (Cohen, Manion & Morrison, 2011).

Descriptive Analysis for the Total Sample

Descriptive statistics for the key variables of the study for the total sample are presented in Table 5. Average scores were obtained by dividing the mean score for the variable on the number of questions that the questionnaire consisted of on that particular variable. Overall, results showed that participants agree that all variables included in this study are essential characteristics of effective teachers. The characteristics most highly valued by the participants were pedagogical skills such as lesson planning, instructional strategies, and student learning, while classroom management and trait EI were rated slightly lower than other variables included in this study.

Table 5

Descriptive Statistics for the Key Variables of the Study for Total Sample

Measure	Min.	Max.	<i>M</i>	<i>SD</i>	Avg. Score
Content knowledge	42.00	70.00	62.37	6.11	6.23
Lesson planning	14.00	35.00	31.44	3.14	6.29
Instructional strategies	34.00	56.00	50.21	4.63	6.28
Classroom management	10.00	28.00	24.03	3.22	6.00
Accommodating diversity	18.00	42.00	36.87	4.16	6.15
Student learning	26.00	49.00	43.73	4.61	6.25
Trait EI	49.00	105.00	89.79	10.34	5.99

Teachers' Perceptions on the Characteristics that Define Effective Teachers

Descriptive statistics for the key variables of the study for the teacher sample are presented in Table 4. In general, results suggest teachers agree that effective teachers should have good content knowledge, pedagogical knowledge and skills, as well as trait EI. Pedagogical skills such as lesson planning, instructional strategies and understanding of student learning were rated most highly, whereas classroom management and trait EI were rated slightly lower in comparison with the other variables in this study.

The results of teachers' perceptions were very similar to results obtained from the whole population that includes teachers and students. In both cases, pedagogical skills such as lesson planning, instructional strategies and understanding of student learning were rated higher than the other variables, while classroom management along with trait EI were rated lower in comparison with the other variables of the study. In general, teachers expressed stronger agreement on the influence of their content knowledge, pedagogical skills and trait EI on academic achievement of students than the whole population of the study, which is reflected on average scores in Table 6.

Table 6

Descriptive Statistics for the Key Variables of the Study for the Sample of Teachers

Measure	Min.	Max.	<i>M</i>	<i>SD</i>	Avg. Score
Content knowledge	49.00	70.00	64.02	4.85	6.40
Lesson planning	24.00	35.00	32.58	2.17	6.52
Instructional strategies	41.00	56.00	52.00	3.45	6.50
Classroom management	19.00	28.00	25.57	2.06	6.39
Accommodating diversity	28.00	42.00	38.61	3.02	6.43
Student learning	36.00	49.00	46.02	3.34	6.57
Trait EI	70.00	105.00	93.99	8.26	6.26

Students' Perceptions on the Characteristics that Define Effective Teachers

Descriptive statistics for the key variables of the study for student sample are presented in Table 7. Overall, results suggest that students agree that all variables included in this study are important characteristics of effective teachers. Students rated pedagogical skills such as lesson planning, instructional strategies, and student learning higher, while classroom management and trait EI were rated slightly lower in comparison to the other variables included in this study. The results obtained from students were very similar to teachers' results. In both cases pedagogical skills such as lesson planning, instructional strategies and understanding of student learning were rated slightly higher than the other variables, while teachers and students rated classroom management as well as trait EI lower. At the same time, it is noticed that students expressed weaker agreement about the influence of teachers' content knowledge, pedagogical skills and trait EI on students' academic achievement than teachers did, which is depicted on average scores in Table 6 and Table 7.

Table 7

Descriptive Statistics for the Key Variables of the Study for the Sample of Students

Measure	Min.	Max.	<i>M</i>	<i>SD</i>	Avg. Score
Content knowledge	42.00	70.00	61.89	6.35	6.19
Lesson planning	14.00	35.00	31.12	3.31	6.22
Instructional strategies	34.00	56.00	49.70	4.80	6.21
Classroom management	10.00	28.00	23.59	3.35	5.90
Accommodating diversity	18.00	42.00	36.37	4.31	6.06
Student learning	26.00	49.00	43.07	4.71	6.15
Trait EI	49.00	105.00	88.57	10.57	5.90

Teachers and Students' Differences in Their Perception of the Characteristics that Define Effective Teachers

A series of independent-samples *t*-test analyses were conducted to analyze differences between teachers' and students' perceptions on the characteristics that define effective teachers in terms of content knowledge, pedagogical knowledge and skills, and trait EI. Cohen's *d* was used to estimate the magnitude of the differences on the mean scores. Results showed that, while all participants agreed that the variables included in this study could be considered part of the range of competences that define effective teachers, significant differences between the perceptions of teachers and students were found (see Table 8).

Content knowledge. Result evidenced that perceptions of content knowledge as a characteristic that define effective teachers differed between teachers ($M = 64.02$, $SD = 4.85$) and students ($M = 61.89$, $SD = 6.35$); $t(258.53) = 4.01$, $p = .000$; $d = 0.89$. On average, teachers tended to rate content knowledge as an important characteristic of effective teachers to a greater extent than students did.

Table 8

*Independent-Samples T-test Analysis for the Difference between Teachers and Students'**Perceptions*

Measure	F	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>	Difference
Content knowledge	10.40	4.01	258.53	.000	0.89	1>2
Lesson planning	21.03	5.67	305.75	.000	0.73	1>2
Instructional strategies	16.50	5.97	276.27	.000	1.13	1>2
Classroom management	33.71	8.09	330.21	.000	1.20	1>2
Accommodating diversity	24.05	6.61	284.01	.000	1.17	1>2
Student learning	16.17	7.87	280.72	.000	1.47	1>2
Trait EI	9.10	6.04	252.34	.000	1.77	1>2

Note. 1=Teachers, 2=Students

Pedagogical knowledge and skills.As shown in Table 8, there were statistically significant differences at the .001 level of significance between teachers and students on their perceptions about pedagogical knowledge and skills as an important characteristic of effective teachers. For teachers, lesson planning, instructional strategies, classroom management, accommodating diversity, and student learning represented to a greater extent features of effective teachers compared to students.

Trait EI.The difference in the perceptions of trait EI as a characteristic of effective teachers between teachers and students was found to be statistically significant, $t(252.34) = 6.04, p = .000; d = 1.77$. More specifically, these results indicated that teachers ($M = 93.99, SD = 8.26$) perceived that trait EI defines better effective teachers than students did ($M = 88.57; SD = 10.57$).

In summary, based on the results presented in this section, it can be concluded that teachers perceived that all the key variables included in this study [content knowledge, pedagogical knowledge and skills (lesson planning, instructional strategies, classroom management, accommodating diversity and student learning) and trait EI] are part of the range of competencies that define effective teachers to a greater extent than students did.

Differences in Teachers' Perceptions by Gender, Age, Years of Teaching Experience, and Teaching Subject

This section presents an analysis of how teachers' perceptions on the characteristics that define effective teachers differ based on participants' gender, age, years of teaching experience, and teaching subject.

Gender. In order to compare teachers' perceptions on the characteristics that define effective teachers for male and female participants in terms of content knowledge, pedagogical knowledge and skills, and trait EI, a series of independent-samples *t*-test were conducted (see Table 9).

Table 9

Independent-Samples T-test Analysis for the Difference between Male and Female

Teachers' Perceptions

Measure	<i>df</i>	<i>t</i>	<i>p</i>	Difference
Content knowledge	123	-1.04	.29	-
Lesson planning	123	-.54	.59	-
Instructional strategies	123	-.08	.93	-
Classroom management	123	-.32	.75	-
Accommodating diversity	123	.64	.52	-
Student learning	123	1.11	.27	-
Trait EI	123	-.88	.38	-

An analysis of the results evidenced no statistically significant differences between male and female teachers' perceptions on the characteristics that define effective teachers for the variables included in this study.

Years of teaching experience. A series of one-way between-groups analysis of variance were conducted to analyze the impact of teachers' years of teaching experience on their perceptions of the characteristics that define effective teachers (see Table 10).

Participants were divided into 3 groups according to their teaching experience (Group 1: [teachers having not more than 4 years of teaching experience]; Group 2: [teachers having 5-10 years of experience]; Group 3: [teachers having more than 10 years of teaching

experience]).

First, results evidenced that there was a statistically significant difference among perceptions of teachers with different years of teaching experience on content knowledge at the $p < .05$ level for the three groups [$F(2, 1) = 3.40, p = .04, \eta^2 = .05$]. Post-hoc comparisons using the Scheffe test indicated that the mean score for Group 2 ($M = 61.23, SD = 1.15$) was significantly lower than scores obtained from Group 1 ($M = 64.68, SD = 1.04$) and Group 3 ($M = 64.42; SD = .51$).

Second, differences in perceptions of teachers on the characteristics that define effective teachers according to the years of professional experience of the participants were also analyzed. Regarding lesson planning's influence on student achievement, no statistically significant results were found among perceptions of teachers with different years of teaching experience at the $p > .05$ level for the three groups [$F(2, 1) = 2.76, p = .06, \eta^2 = .04$].

A statistically significant difference was found among teachers with a different number of years of teaching experience for instructional strategies at the $p < .05$ level for the five groups [$F(2, 1) = 3.89, p = .02, \eta^2 = .06$]. Post-hoc comparisons using the Scheffe test indicated that the mean scores obtained by Group 2 ($M = 49.88, SD = .74$) was significantly lower than the scores obtained by Group 3 ($M = 52.35, SD = 3.62$). However, no significant differences were found between Group 1 ($M = 52.29, SD = .74$) and the other groups.

Concerning classroom management, statistically significant results were also found among perceptions of teachers with various years of professional experience at the $p > .05$ level for the three groups [$F(2, 1) = 4.65, p = .01, \eta^2 = .07$]. Post-hoc comparisons using the Scheffe test indicated that the means score obtained by Group 2 ($M = 24.23, SD = .49$) was significantly lower than the scores obtained by Group 3 ($M = 25.48, SD = .49$).

However, no significant differences were found between Group 1 ($M = 2.29$, $SD = .44$) and the other groups.

Regarding accommodating diversity, statistically significant differences were found among teachers' perceptions with different amount of teaching experience at the $p < .05$ levels for three groups [$F(2, 1) = 5.85$, $p = .04$, $\eta^2 = .08$]. Post-hoc comparisons using the Scheffe test indicated that the mean score obtained by Group 2 ($M = 36.47$, $SD = .70$) was significantly lower than the scores obtained by Group 3 ($M = 39.09$, $SD = .31$). However, results evidenced no significant differences among the scores of the Group 1 ($M = 38.38$, $SD = .63$) with the other groups.

Concerning student learning, there was a statistically significant difference too among teachers with a different number of years of teaching experience at the $p < .05$ level for three groups [$F(2, 1) = 4.23$, $p = .01$, $\eta^2 = .06$]. Post-hoc comparisons using the Scheffe test indicated that the mean score obtained by Group 2 ($M = 44.03$, $SD = .79$) was significantly lower than the scores obtained by Group 3 ($M = 46.49$, $SD = .35$). However, results evidenced no significant differences among the scores of the Group 1 ($M = 45.67$, $SD = .71$) and the other groups.

Third, results suggested that there was a statistically significant difference among perceptions of teachers with different years of teaching experience on trait EI at the $p < .05$ level for the three groups [$F(2, 1) = 4.62$, $p = .01$, $\eta^2 = .07$]. Post-hoc comparisons using the Scheffe test indicated that the mean score for Group 2 ($M = 88.53$, $SD = 1.95$) was significantly lower from Group 1 ($M = 95.43$; $SD = 1.75$) and Group 3 ($M = 94.71$, $SD = .86$).

Table 10

One-Way Between-Groups Analysis of Variances for the Difference in Perceptions among Teachers with Different Years of Teaching Experience

Measure	<i>df</i>	F	<i>p</i>	η^2	Difference
Content knowledge	2,1	3.40	.04	.05	2<3
Lesson planning	2,1	2.76	.06	.04	2<3
Instructional strategies	2,1	3.89	.02	.06	2<3
Classroom management	2,1	4.65	.01	.07	2<3
Accommodating diversity	2,1	5.85	.04	.08	2<3
Student learning	2,1	4.23	.01	.06	2<3
Trait EI	2,1	4.62	.01	.07	2<3

Note. 1 refers to teachers with less than 4 years of teaching experience, 2 refers to teachers with 5-10 years of experience, 3 refers to teachers with more than 10 years of teaching experience.

Teaching subject. A series of one-way between-groups analysis of variance were conducted to explore the effect of teachers' teaching subjects on perceptions about effective teacher characteristics. Participants were divided into 5 groups according to their teaching subjects (Group 1: [social sciences]; Group 2: [natural sciences]; Group 3: [ICT]; Group 4: [exact sciences]; Group 5 [languages]).

Results evidenced no statistically significant differences among different subjects on teachers' perceptions regarding the influence of their content knowledge, lesson planning, instructional strategies, classroom management, accommodating diversity, student learning and trait emotional intelligence on students' academic achievement. The results are shown in Table 11.

Overall, the results presented in this section suggest that there were differences in teachers' perceptions of the characteristics that define effective teachers in terms of content knowledge, pedagogical knowledge and skills and trait EI based on teaching experience. In particular, teachers who had from 5 to 10 years of teaching experience rated their content knowledge, pedagogical knowledge and skills, and trait EI as having a lesser impact on

effective teaching than teachers having from 1 to 4 years of teaching experience (i.e., less experienced) and teachers with more than 10 years of teaching experience (i.e., more experienced). However, no statistically significant differences were found in perceptions of male and female teachers teaching different subjects regarding characteristics of effective teachers.

Table 11

One-Way Between-Groups Analysis of Variance s For The Difference in Perceptions Among Teachers of Different Subjects

Measure	<i>df</i>	F	<i>p</i>	Difference
Content knowledge	4,1	.49	.75	-
Lesson planning	4,1	.22	.92	-
Instructional strategies	4,1	.17	.95	-
Classroom management	4,1	.15	.96	-
Accommodating diversity	4,1	.41	.80	-
Student learning	4,1	.17	.95	-
Trait EI	4,1	.62	.65	-

Differences in Students' Perceptions by Gender, Grade, and Academic Achievement

This section provides analyses of how students' perceptions of the characteristics that define effective teachers differed by gender, grade, and academic achievement.

Gender. In order to compare students' perceptions regarding the characteristics that define effective teachers, a series of independent samples *t*-test were conducted (see Table 12). The results suggested there were statistically significant differences between male and female students' perceptions regarding the characteristics that defined effective teachers for particular variables included in this study.

The tests showed statistically significant results in scores for males ($M = 61.28$; $SD = 6.87$) and females ($M = 62.59$; $SD = 5.65$) in content knowledge; $t(432) = 2.16$, $p = .03$, $d = .52$. Female students had a stronger view on the influence of teachers' good content

knowledge on the knowledge they teach and their effectiveness.

Regarding lesson planning, the results showed statistically significant differences in scores for males ($M = 30.61$; $SD = 3.56$) and females ($M = 31.69$; $SD = 2.89$); $t(428.77) = 3.45$, $p = .001$, $d = .75$. In other words, females thought teachers' abilities to plan lessons were important for being effective more than males did.

Table 12

Independent-Samples T-test Analysis for the Difference between Male and Female

Students' Perceptions

Measure	<i>df</i>	<i>t</i>	<i>p</i>	<i>d</i>	Difference
Content knowledge	429.61	2.18	.03	.52	1<2
Lesson planning	428.77	3.45	.001	.75	1<2
Instructional strategies	424.12	3.09	.002	.65	1<2
Classroom management	431.69	2.71	.007	.46	1<2
Accommodating diversity	431.63	2.62	.01	.52	1<2
Student learning	431.96	3.26	.001	.66	1<2
Trait EI	432	1.64	.1	-	-

Note. 1 = Males, 2 = Females

As far as instructional strategies were concerned, the test showed statistically significant differences; $t(424.12) = 3.09$ $p = .002$, $d = .65$. The results indicated that females ($M = 49.04$; $SD = 5.28$) ranked teachers' instructional strategies influenced their effectiveness higher than males did ($M = 50.44$; $SD = 4.08$).

With regard to classroom management, the results indicated statistically significant differences in scores for males ($M = 23.18$; $SD = 3.47$) and females ($M = 24.04$; $SD = 3.16$); $t(431.69) = 2.71$ $p = .007$, $d = .46$. In other words, females perceived teachers' classroom management skills as more important skills for effective teachers than males did.

An independent samples *t*-test was found to be statistically significant between males ($M = 35.86$; $SD = 4.56$) and females ($M = 36.93$; $SD = 3.93$) on accommodating diversity scores; $t(431.63) = 2.62$, $p = .01$, $d = .52$. The results suggest that females rated

teachers' ability to accommodate diversity as a more important characteristic of effective teachers than males did.

Concerning student learning, the results indicated statistically significant differences in scores for males ($M = 42.38$; $SD = 4.94$) and females ($M = 43.83$; $SD = 4.83$); $t(431.96) = 3.26$ $p = .001$, $d = .66$. In other words, the results suggest females rated teachers' understanding of student learning as a more effective trait than males did.

There were no statistically significant results in trait EI scores for males ($M = 87.79$; $SD = 11.03$) and females ($M = 89.46$; $SD = 9.98$); $t(432) = 1.64$, $p = .10$.

Grade. A series of one-way between groups analysis of variance were conducted to explore students' perceptions regarding the characteristics that define effective teachers. Participants were divided into 4 groups according to their grade (Group 1: [8th grade students]; Group 2: [9th grade students]; Group 3: [10th grade students]; Group 4: [11th grade students]).

Table 13

One-Way Between-Groups Analysis of Variance s For The Difference in Perceptions Among Students at Different Grades

Measure	<i>df</i>	F	<i>p</i>	Difference
Content knowledge	3,1	.68	.57	-
Lesson planning	3,1	.51	.67	-
Instructional strategies	3,1	.57	.63	-
Classroom management	3,1	.59	.61	-
Accommodating diversity	3,1	1.55	.20	-
Student learning	3,1	.93	.14	-
Trait EI	3,1	.64	.59	-

No statistically significant differences were found in perceptions among students studying in different grades regarding effective teacher characteristics (see Table 13).

Academic achievement. A series of one-way between-groups analyses of variance were conducted to explore the impact of students' perceptions with different academic

achievements on the influence of teachers' content knowledge, pedagogical knowledge and skills as well as trait EI on their effectiveness as teachers. Participants were divided into three groups according to their academic achievement: Group 1: [students with low academic achievement]; Group 2: [students with average academic achievement]; Group 3: [students with high academic achievement]).

No statistically significant differences were found in perceptions among students with low, average and high academic achievement regarding characteristics that define effective teachers, such as content knowledge, pedagogical knowledge and skills and trait EI. The results are illustrated in Table 14.

Table 14

One-Way Between-Groups Analysis of Variances For The Difference in Perceptions Among Students with Different Academic Achievement

Measure	<i>df</i>	F	<i>p</i>	Difference
Content knowledge	2,1	1.09	.33	-
Lesson planning	2,1	.58	.56	-
Instructional strategies	2,1	.81	.45	-
Classroom management	2,1	.42	.66	-
Accommodating diversity	2,1	1.55	.20	-
Student learning	2,1	1.31	.27	-
Trait E I	2,1	2.01	.13	-

Conclusion

This chapter presented the answers for the research questions by analyzing the collected data. Overall, the results of the study indicated that both teachers and students agree that teachers' content knowledge, pedagogical knowledge and skills along with trait EI are characteristics that define effective teachers. Teachers' and students' perceptions coincided in providing higher scores for pedagogical skills such as instructional strategies, lesson planning and lower scores in comparison with the other scales for trait EI and classroom

management. At the same time, teachers perceived that all the key variables included in this study are part of the range of features that define effective teachers to a greater extent than students did. With regard to demographic characteristics of teachers, teachers' perceptions on effective teacher characteristics varied based on their years of teaching experiences. However, there were no significant differences found in teachers' perceptions based on their gender and their teaching knowledge. As far as students are concerned, the results indicated no significant differences in students' perceptions about the characteristics that define effective teachers by their grade and academic achievement. However, significant differences were found in male and female students' perceptions, where female students showed agreement about the influence of teachers' content knowledge and pedagogical knowledge and skills on their effectiveness. Though, no differences were found in perceptions of male and female students regarding trait EI as being an important characteristic for effective teachers. The presented findings in this chapter will be explored and interpreted in greater depth and in more detail in the following chapter.

Chapter 5: Discussion of the Findings

Introduction

In the previous chapter, analyses of the collected data provided the answers for the research questions. As it was mentioned, the purpose of the research was to find the perceptions of teachers and students on the characteristics that define effective teachers, particularly, teachers' content knowledge, pedagogical knowledge and skills together with trait EI. This chapter aims to discuss the findings that have emerged from collected data. Firstly, the chapter introduces the discussion of the findings, where research results were interpreted and analyzed; secondly, it explains the limitations of the research; thirdly, it presents recommendations for further research; and finally, it provides implications of the research.

Discussion of Findings

Teachers' and students' perceptions on the characteristics that define effective teachers. The results of this study indicated that both teachers and students agree that teachers' content knowledge, pedagogical knowledge and skills, such as lesson planning, instructional strategies, classroom management, accommodating diversity, and student learning, and other socio-emotional characteristics under the framework of trait EI theory define the range of competences that describe effective teachers.

Concerning teachers' content knowledge, literature greatly supports the idea that teachers' content knowledge plays a crucial role in students' academic achievement and other variables related to students' outcomes (Ball, Thames & Phelps, 2008; Darling-Hummond, 1999; Metzler & Woessmann, 2012; Stronge, 2007; Woolfolk, 2014). Studies that involved school principals', teachers', and students' perceptions have shown they consider teachers who possess content knowledge significantly influenced student learning and achievement in a positive way (Askew, Brown, Rhodes, Johnson & Wiliam, 1997;

Peart & Campbell, 1999; Rock, 1997). In addition, teachers who have better content knowledge tend to be more confident, are able to make lessons more interesting, organize their lessons better, and involve students in higher order thinking, which, in turn, affects student achievement positively (Stronge, 2007, Wenglinsky, 2000, Woolfolk, 2014).

In accordance with the present results, previous studies have demonstrated that pedagogical knowledge and skills of teachers have also a positive impact on their effectiveness and students' achievement gains (Freiberg, 2002; Kleickmann et al., 2013; Shulman, 1994; Tamir, 1988). Particularly, the results of this study suggested that teachers' ability to plan lessons, be good at instructional strategies, managing the classroom, accommodating students' diversity and understanding students' learning influenced students' outcomes in a positive way, as has been evidenced elsewhere.

With reference to lesson planning, Richards (1998) emphasized that a good lesson depends on how much effort and time a teacher devoted on planning the lesson. Literature indicates that teachers who plan their lessons are considered to be more effective than those who do not (Baylor, Kitsantas, & Chung, 2001; Farrell, 2002, Richards, 1998; Santrock, 2011; Stronge, 2007).

Concerning instructional strategies, studies have shown that teachers skilled in instructing students play one of the key roles in effective teaching and learning (Choy et al., 2013; Santrock, 2011). In addition, scholars claim that more focus should be on educating pre-service teachers on how to use instructions effectively (Choy et al., 2013).

As far as classroom management is concerned, studies indicate that good classroom management skills are essential for effective teachers (Morris et al., 2010; Santrock, 2011; Stronge, 2007; Woolfolk, 2014). According to Woolfolk (2014), good classroom management contributes to establishing rules and structures during lessons. It also helps to

diminish students' disruptive behavior, which saves more time for learning. Finally, classroom management is good for developing students' self-management skills.

In regards to accommodating diversity, understanding students' differences and being able to conduct lessons considering students' differences in mind is necessary to make effective teaching and learning happen (Darling-Hammond, 1999; O'Hara & Pritchard, 2008; Stronge, 2007). Students' learning styles and their socio-cultural background should be taken into account when teaching students (Darling-Hammond, 1999). Stronge (2007) claims that differentiation of instruction should be incorporated during lessons to meet students' needs and will eventually lead to effective teaching and learning.

In relation to understanding student learning, a large amount of studies support the idea that teachers need to understand how students learn in order to contribute to effective teaching and learning (Rock, 1997; Santrock, 2011; Woolfolk, 2014; Wong et al., 2012). Teachers should prepare lessons based on students' interests, needs, and learning styles to influence student outcomes positively (Darling-Hammond, 1999; Santrock, 2011; Woolfolk, 2014).

As far as teachers' socio-emotional characteristics included under the framework of trait EI theory is concerned, the findings observed in this study mirror those of previous studies that have examined the effect of teachers' socio-emotional characteristics on students' outcomes (Brackett & Katulak, 2006; Corcoran & Tormey, 2012; Jennings & Greenberg, 2009; Leyden & Shale, 2012). According to Hargreaves (1998), teaching is a profession full of emotions and, consequently, teachers need to understand and manage their own emotions as well as students' emotions. Similarly, Brackett and Katulak (2006) found teachers' social and emotional competence is associated with good relationships between teachers and students and a classroom environment conducive for learning.

Based on Maslow's hierarchy of needs, students' needs to belong should be satisfied prior to their self-actualization (Woolfolk, 2014). Hence, in order to promote students' learning, teachers should put their efforts in establishing positive relationships and a supportive environment in their classroom.

Although the research results suggest that all three areas have high significance, pedagogical skills such as instructional strategies, lesson planning, and student learning are rated at the top, followed by subject knowledge, with trait emotional intelligence last. These findings are in line with the theses of several authors, who have suggested that teachers' pedagogical knowledge and skills have a stronger influence on student achievement rather than just content knowledge (e.g., Darling-Hammond, 1999; Monk, 1994).

Trait EI and the ability to manage classrooms were rated lower in comparison to the other variables, probably because trait EI of teachers and their ability to manage classrooms are perceived by teachers as having an indirect impact on student achievement, rather than a direct influence on their achievement. According to Leyden and Shale (2012), creating good relationships with students and understanding and caring about their feelings and needs influences students' behavior and their social and academic life in a positive way. Similarly, the ability to manage a classroom helps to make lessons more structured and allows the teacher to devote more time for actual learning and the enhancement of students' self-management skills, which may further contribute to students' academic achievement (Woolfolk, 2014).

Teachers' perceptions on the characteristics that describe effective teachers. The first research question aimed to find teachers' perceptions regarding the characteristics that define effective teachers. The results from descriptive statistics were similar to the ones received from the whole sample that took part in the study and were

presented above. Firstly, teachers expressed a general agreement about effective features of teachers such, including content knowledge, pedagogical knowledge and skills such as lesson planning, instructional strategies, classroom management, accommodating diversity and student learning. This finding supports previous research done in the same area. For example, Stronge's (2008) conception of effective teaching includes professional knowledge and skills, motivation and care that are related to trait EI. Furthermore, in the study on effective teachers, pre-service teachers mentioned such attributes as "student-centered, effective classroom and behavior management, competent instructing, ethicality, enthusiasm about teaching, being knowledgeable about the subject, professionalism", that could be referred to teachers' content knowledge, pedagogical knowledge and skills, and trait EI (Minor et al., 2002, p. 119).

Secondly, although teachers consider that all characteristics are relevant for effective teaching, they rated lesson planning, instructional strategies and understanding of student learning higher than the other characteristics. A plausible explanation of this may be the emphasis on developing pedagogical knowledge and skills during professional development programs. The shift from teacher-centered education to student-centered education led to reappraisal of teacher trainings, where focus goes more on developing pedagogical knowledge and skills rather than teachers' subject matter knowledge (Stronge, 2007). Previous studies suggest that pedagogical knowledge of a teacher and its usage more strongly influences teacher's effectiveness than their content knowledge (Ferguson & Womack, 1993; Monk, 1994).

Thirdly, despite the importance of teacher characteristics provided in the questionnaire, teachers rated trait EI and classroom management skills lower in comparison to the other teacher characteristics. This might be explained by considering that teachers are mostly nurtured about content knowledge, pedagogical knowledge and

skills through teacher trainings and other professional development programs for pre-service and in-service, and not much attention is given to developing teachers' social and emotional competencies (Corcoran & Tormey, 2012).

Students' perceptions on the characteristics that describe effective teachers. The second research question sought to examine students' perceptions on the characteristics that define effective teachers. The results obtained from descriptive statistics indicate that students and teachers have similar opinions about effective teacher characteristics. Firstly, students agree about the influence of teachers' content knowledge, pedagogical knowledge and skills, along with trait EI on teacher effectiveness. These results are consistent with previous studies, where students' perceptions about effective teacher characteristics were reported, which included a sense of humor, making the class interesting, having knowledge of their subjects, explaining things clearly, and consideration of students' feelings (Rock, 1997). A different study supported the idea that an effective teacher is a classroom and behavior manager, competent instructor, ethical, enthusiastic about teaching, knowledgeable, and professional (Minor et al., 2002).

Secondly, although all characteristics were considered relevant for students, they rated several pedagogical skills of the teachers, such as lesson planning, instructional strategies and student learning and understanding the most highly, consistent with previous research on this topic (e.g., Minor et al., 2002; Rock, 1997).

Thirdly, students rated teachers' trait EI and classroom management lower than the other characteristics and competencies of effective teachers. However, previous studies have shown that students believe teachers' positive personality traits, their humor, positive attitude, and empathy play a crucial role in students' achievement (Rock, 1997; Stronge, 2007). These results could be because items of the questionnaire were heavily loaded with questions about teachers' characteristics that influence students' academic achievement.

Therefore, students might have rated pedagogical skills and content knowledge slightly higher since they have a more direct influence on student achievement.

Teachers' and students' differences in their perceptions of effective teacher characteristics. The third research question aimed to find out the differences in teachers' and students' perceptions on the characteristics that define effective teachers. Results of this study evidenced that teachers rated all the key variables higher than students. In other words, teachers perceive that such characteristics as content knowledge, pedagogical knowledge and skills and trait EI define effective teachers to a greater extent than students do. This probably could be explained by the fact that while getting their qualifications, teachers get an understanding that both their expertise in the subject they teach and their pedagogical competences and skills play a major role in students' learning, while students might rely more on their knowledge, skills and efforts to study better and gain higher results in school. Research shows that students with greater self-efficacy are more motivated, use self-regulated learning strategies and, therefore, rely more on their own skills and abilities (Zimmerman, Bandura & Martinez-Pons, 1992; Zimmerman, 2000). Therefore, students, especially with high self-efficacy, might rely more on their own knowledge and skills rather than on teachers, while teachers with higher self-efficacy may have a strong belief that they are able to influence student outcomes. In addition, teachers nurtured about their importance for contributing to student outcomes might pay less attention to the fact that there can be other existing factors that influence student achievement gains. For example, research indicates that students' socio-economic background, parents' education, and family income can influence their achievement in school (Sirin, 2005). Likewise, studies show that school facilities such as temperature, ventilation, acoustics, school size, etc. influence teaching and learning. (Earthman, 2002; Schneider, 2002).

Differences in teachers' perceptions by gender, years of teaching experience and teaching subject. The fourth research question sought to find out how demographic characteristics of teachers, such as gender, age, years of teaching experience, and teaching subject influence their perceptions regarding characteristics that define effective teachers. Firstly, the results suggest there are no differences in teachers' perceptions on the influence of variables included in this study based on teacher gender. It contrasts with the results of a previous study, where female pre-service teachers rated teaching methodology and teacher personality characteristics higher, and subject knowledge and classroom management lower than male teachers (Witcher&Onwuegbuzie, 1999). The fact that the sample of the current study included only in-service teachers may explain this divergence.

Secondly, the results of the current study suggest that years of experience of teachers influence their perceptions about the characteristics that describe effective teachers. Teachers having from 5 to 10 years of teaching experience indicated that their content knowledge, pedagogical knowledge and skills, and trait EI were less relevant for effective teaching than less (1 to 4 years of teaching experience) and more experienced (more than 10 years of teaching experience) teachers did. A plausible explanation for this may be the evolution of self-efficacy of teachers during their career. Teacher self-efficacy has been demonstrated to increase from the beginning of their profession and decline afterwards, as can be interpreted examining the results of the current study (Klassen& Chiu, 2010). Similarly, a study on beginning teachers' perceptions about their pedagogical knowledge and skills also showed that during their first teaching years, teachers think that their lesson planning, instructional strategies and classroom management skills increased (Choy, Wong, Lim & Chong, 2013). However, a recent study evidenced that beginning teachers demonstrate lower levels self-efficacy for instructional strategies and classroom management in comparison with experienced teachers, but no differences exist in

beginning and experienced teachers' self-efficacy for student engagement (Tschannen-Moran & Hoy, 2007). Divergence in the results regarding the evolution of teachers' self-efficacy may be the intervention of other various factors influencing teachers' perceptions such as the quality of professional development training, support from teaching colleagues or confidence in their own professional competence.

Thirdly, in relation to differences in perceptions among teachers of different subjects, content knowledge is considered more important for teachers of math and science (Stronge, 2007). The findings of the current study do not support the previous research, which suggest that teachers perceptions of the characteristics of effective teachers, specially content knowledge may vary across domains (e.g., Druva & Anderson, 1983; Metzler & Woessmann, 2012; Monk, 1994; Wenglinsky, 2000).

Differences in students' perceptions by gender, grade, and academic achievement. Research question five aimed to examine whether there are differences in students' perceptions about the characteristics that define effective teachers based on their gender, grade, and academic achievement. Firstly, male and female students showed different results regarding effective teacher characteristics in terms of content knowledge and pedagogical knowledge and skills, where females rated these variables higher than males. However, no differences were found between male and female students' perceptions on the influence of teachers' trait EI on their effectiveness. Similarly, the study that investigated nursing students' perceptions on effective teacher characteristics found similar results in terms of student gender: both male and female students rated teachers' interpersonal relationships and personality characteristics as being equally important (Nahas, Nour, & Al-Nobani, 1999). However, in the same study, no differences were found in male and female perceptions regarding the importance of teachers' professional and pedagogical skills for effective teachers.

Secondly, no differences were found in students' perceptions between different grade levels regarding effective teacher knowledge and skills. Contrary to the results found in the current study, second-year students rated teachers' interpersonal relationships higher and fourth-year students gave preference for teachers' personal characteristics (Nahas et al., 1999). At the same time, in a different study about college students' perceptions about effective teacher characteristics, older students tended to choose teacher characteristics that are more related to their pedagogical skills, instructional strategies rather than younger ones (Onwuegbuzie et al., 2007).

Finally, no differences were found among students' perceptions with different academic achievement on the influence of content knowledge, pedagogical knowledge and skills and trait emotional intelligence on teacher effectiveness. Students despite their differences in academic achievement rated all the variables examined in this study as having an impact on teacher effectiveness. In the same way, Stronge (2007) describing effective teacher characteristics and analyzing the studies on this theme concluded that for both at risk students and gifted children teacher personality, their classroom management and instructional skills are important for effective teachers.

Limitations

A number of limitations need to be considered in the current investigation. Firstly, one of the limitations lies in the use of survey design, where the researcher defines and puts constraints on the number of variables to be studied based on the reviewed literature, theory or conducted exploratory design prior to conducting the questionnaire (Muijs, 2011).

Secondly, survey design makes it difficult to obtain deeper understanding of "processes and contextual differences through questionnaires, which are standardized by their nature limited in length and depth of responses" (Muijs, 2011, p. 39). The

questionnaire consisted of 55 likert-scale questions, where participants could not indicate their own answer, while a deeper understanding of the study could be achieved with a greater number of questions or interviews.

Thirdly, the generalizability of the research results is subject to certain limitations. Convenience sampling procedures were used to collect the data in the study, which makes it difficult to generalize the findings for the entire population. In addition, although it would be interesting to see suburban and rural population's perceptions of the study, only urban populations took part in the study. Also, the research took place just in one city, which may not be representative of other cities. Moreover, the research focused on only high school grades and part of middle school grades, not taking into account opinions of elementary school populations.

Finally, the questionnaire used in this research was designed purposefully for this study based on other study's questionnaires. Despite the fact that it was tested and reviewed by a peer group and approved by a research supervisor, it has not been validated before its administration.

Recommendations for Further Research

The results of this study indicated that teachers and students think that characteristics such as content knowledge, pedagogical knowledge and skills, and trait EI greatly define effective teachers. This research has raised many questions in need of further investigation. An investigation conducted with a larger population of teachers and students from different regions of Kazakhstan would provide more information on characteristics that define effective teachers and help to see whether the results would be true for a more representative sample.

Further researchers might examine in the future perceptions of a more diverse population including other educational stakeholders like parents or school administrators in

order to analyze the results from different perspectives and investigate differences and similarities in perceptions. Moreover, the same or similar research can take place in higher education institutions.

In addition, it would be interesting to conduct the study using additional data from the other regions of the world. Thus, it would be possible compare and contrast the obtained results across other countries.

Further research investigations might expand the current instrument or develop other tools that would measure participants' perceptions of the other characteristics that define effective teachers. The current tool might be expanded with post survey follow-ups that can include additional open questions to grasp a deeper and more profound understanding of the findings.

It is also recommended that further research would undertake qualitative or mixed-method research design in the study. This would help gain more precise and deeper answers on the discussion questions in this investigation and allow comparison with existing studies.

Implications of the Research

Taken together, the results of the study suggest that both teachers and students think that teachers' content knowledge, pedagogical knowledge and skills (i.e. lesson planning, instructional strategies, classroom management, accommodating diversity, student learning) and trait EI constitute part of the range of competences that contribute to effective teaching and learning. These findings suggest several courses of action for stakeholders in an educational field.

First, this study contributes to the literature and discussions of teacher's characteristics that are important for promoting teaching and learning. The results of the study might be compared and contrasted with other studies similar to this one. The current

study can also prompt the conduction of further studies related to investigating characteristics of effective teachers, which can be particularly useful in a Kazakhstani context, where major reforms go around teaching professions.

Second, the findings of the investigation lead to a reappraisal of pre-service training provision of teachers. It is important to pay attention to the holistic professional development of teachers, not only focusing on developing a teacher's deep knowledge of the subject they are going to teach, but also to pedagogical knowledge and skills, teaching methodology, and personal traits under the framework of trait EI. There should be a demand for deep understanding of what kind of teacher is needed in the classroom, since teachers are those who directly contact with students every day.

Furthermore, staff development opportunities should be provided for in-service teachers to update their content knowledge, develop pedagogical knowledge and skills as well as socio-emotional competencies.

Finally, these findings also have important implications for developing policies in recruitment and retention of effective teachers in schools, paying attention to and examining teachers' content knowledge, pedagogical knowledge and skills, and social and emotional-related traits.

Conclusion

The current study aimed to find out the perceptions of teachers and students regarding effective teacher characteristics in terms of content knowledge, pedagogical knowledge and skills as well as trait EI. The study employed cross-sectional survey design to fulfill the purpose of the study and answer the research questions. The following conclusions emerged as a result of this study:

1. Overall, both teachers and students agree that such characteristics as content knowledge, pedagogical knowledge and skills, and trait emotional intelligence

defines an effective teacher.

2. Teachers and students had similar perceptions about effective teacher characteristics, rating such pedagogical knowledge and skills as lesson planning, instructional strategies and student learning higher, while classroom management and trait EI lower in comparison with the other variables.
3. In general, teachers rated content knowledge, pedagogical knowledge and skills, and trait EI higher than students did, showing a stronger agreement about the influence of these characteristics and competencies on teacher effectiveness.
4. Particular demographic characteristics of teachers influenced teachers' perceptions regarding effective teacher characteristics. Teachers having from 5 to 10 years of teaching experience believed that their content knowledge, pedagogical skills and trait EI were less relevant for effective teaching than teachers with a different number of years of teaching experience (teachers with no more than 4 years of teaching experience, teachers with more than 10 years of teaching experience). However, no differences were found in teachers' perceptions regarding effective teacher characteristics by their gender and teaching knowledge.
5. There were differences in students' perceptions of effective teacher characteristics based on some demographic characteristics. Female students rated content knowledge, pedagogical knowledge and skills as effective teacher characteristics higher than male students. Though, there were no differences in male and female students' perceptions regarding the impact of trait EI on teacher effectiveness. In addition, no differences were found among students' perceptions regarding effective teacher characteristics by their studying grade and academic achievement.

The implications of this study lie in the idea that both teachers and students, those who are directly involved in teaching and learning processes, perceive that such characteristics as content knowledge, pedagogical knowledge and skills, as well as trait EI greatly define effective teachers. A discussion should be opened about how educational stakeholders can contribute to the development of effective teachers taken into account the results of the current study. If demographic characteristics of teachers and students influence their perceptions, stakeholders in the education sector need to be diligent in their efforts to take these into consideration and adjust accordingly. Studies like this can be conducted across the country, which will lead to a better understanding of effective teaching. Such studies can be the beginning of improvement of education for teachers, enhancement of teaching quality and students' achievement.

References

- Adams, H. (1999). *The education of Henry Adams*. New York, NY: Oxford University Press.
- Address by the president of the Republic of Kazakhstan NursultanNazarbayev to the People of Kazakhstan. (1997). Retrieved on June 6, 2014 from http://www.akorda.kz/en/category/gos_programmi_razvitiya
- Address by the president of the Republic of Kazakhstan NursultanNazarbayev to the People of Kazakhstan. (2012). Retrieved on July 7, 2014 from http://www.akorda.kz/en/page/address-by-the-president-of-the-republic-of-kazakhstan-nursultan-nazarbayev-to-the-people-of-kazakhstan-27-01-2012_1341926486
- Adedoyin, O. (2011). The impact of teachers' in-depth pedagogical mathematical content knowledge on academic performance: As perceived by botswana junior secondary school pupils. *European Journal of Educational Studies*, 3(2), 277-292.
- Alexander, C., & Fuller, E. J. (2004). Does teacher certification matter? Teacher certification and middle school mathematics achievement in Texas. In *annual meeting of the American Educational Research Association*. San Diego, CA.
- Anderman, E., & Dawson, H. (2011). Learning with motivation. In R. Mayers&P. Alexander (Eds.), *Handbook of research on learning and instruction* (pp. 214-219). New York, NY: Routledge.
- Asian Development Bank. (2001). Report on the project “Regional Co-operation in the Field of Reform Management in the Educational Sector”. Almaty: Asian Development Bank.
- Askew, M., Brown, M., Rhodes, V., Johnson, D., &Wiliam, D. (1997). *Effective teachers of*

- numeracy*. London: Kings College.
- Ball, D. L., Thames, M. H., & Phelps, G. (2008). Content knowledge for teaching what makes it special? *Journal of teacher education*, 59(5), 389-407.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bar-On, R. (1997). *The Emotional Intelligence Inventory (EQ-i): Technical manual*. Toronto: Canada7 Multi-Health Systems.
- Barro, R. J. (2001). Human capital and growth. *American Economic Review*, 91(2), 12-17.
- Baumert, J., Kunter, M., Blum, W., Brunner, M., Voss, T., Jordan, A., & Tsai, Y. M. (2010). Teachers' mathematical knowledge, cognitive activation in the classroom, and student progress. *American Educational Research Journal*, 47(1), 133-180.
- Baylor, A., Kitsantas, A., & Chung, H. (2001). The Instructional Planning Self-Reflective Tool: A Method for Promoting Effective Lesson Planning. *Educational Technology*, 41(2), 56-59.
- Brackett, M. A., & Katulak, N. A. (2006). Emotional intelligence in the classroom: Skill-based training for teachers and students. In Ciarrochi, J., (Eds.), *Applying emotional intelligence: A practitioner's guide* (pp. 1-27). New York, NY: Psychology Press.
- Brophy, J. (1986). Teacher influences on student achievement. *American Psychologist*, 41(10), 1069.
- Brunberg S. L. (2013). *A study about the level of a teacher's content knowledge, pedagogical content knowledge, instructional practices, and demographics and their effects on students' literacy achievement*. Doctoral dissertation. Retrieved from <http://ezproxy.library.nu.edu.kz:2058/docview/1497034471/previewPDF/1F9C04760A420APQ/1?accountid=134066>

- Choy, D., Lim, K. M., Chong, S., & Wong, A. F. (2012). A confirmatory factor analytic approach on perceptions of knowledge and skills in teaching. *Psychological Reports, 110*(2), 589-597.
- Choy, D., Wong, A. F., Lim, K. M., & Chong, S. (2013). Beginning Teachers' Perceptions Of Their Pedagogical Knowledge and Skills in Teaching: A Three Year Study. *Australian Journal of Teacher Education, 38*, 5.
- Coffield, F. (2008). *Just suppose teaching and learning became the first priority*. London: Learning and Skills Network.
- Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). London: Routledge.
- Corcoran, R. P., & Tormey, R. (2012). *Developing emotionally competent teachers emotional intelligence and pre-service teacher education*. Bern: Peter Lang.
- Creswell, J.W. (2014). *Educational research: Planning, conducting and evaluating quantitative and qualitative research* (4th ed.). London, UK: Pearson.
- CUREE. (2012). Evaluation of Learning Away: Hypothesis 5: Teachers' pedagogical skills. London: Paul Hamlyn Foundation.
- Darling-Hammond, L. (2000). How teacher education matters. *Journal of teacher education, 51*(3), 166-173.
- Darling-Hammond, L., Wise, A.E., & Kline, S. P. (1999). *A license to teach: Raising Standards for teaching*. San Francisco, CA: Jossey-Bass.
- Druva, C. A., & Anderson, R. D. (1983). Science teacher characteristics by teacher behavior and by student outcome: A meta- analysis of research. *Journal of Research in Science Teaching, 20*(5), 467-479.
- Earthman, G. I. (2002). School facility conditions and student academic achievement. *UCLA's Institute for Democracy, Education, & Access*.

- Farrell, T. S. (2002). Lesson planning. In Richards, J. C. & Renandya, W. A. (Eds.), *Methodology in Language Teaching: An Anthology of Current Practice* (pp 30–39). New York, NY: Cambridge University Press.
- Ferguson, P., & Womack, S. T. (1993). The impact of subject matter and education coursework on teaching performance. *Journal of Teacher Education*, 44(1), 55-63.
- Ferrando, M., Prieto, M. D., Almeida, L. S., Ferrándiz, C., Bermejo, R., López-Pina, J. A., Hernandez, D., Sáinz, M., & Fernández, M. C. (2010). Trait emotional intelligence and academic performance: Controlling for the effects of IQ, personality, and self-concept. *Journal of Psychoeducational Assessment*.
- Figlio, D. N. (1997). Teacher salaries and teacher quality. *Economics Letters*, 55(2), 267-271.
- Freiberg, H. J. (2002). Essential skills for new teachers. *Educational Leadership*, 59(6), 56-60.
- Freudenthaler, H. H., Neubauer, A. C., Gabler, P., Scherl, W. G., & Rindermann, H. (2008). Testing and validating the trait emotional intelligence questionnaire (TEIQue) in a German-speaking sample. *Personality and Individual Differences*, 45(7), 673-678.
- Galor, O., & Tsiddon, D. (1997). The distribution of human capital and economic growth. *Journal of Economic Growth*, 2(1), 93-124.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York, NY: Basic Books.
- Gladwell, M. (2009). *What the dog saw: And other adventures*. New York, NY: Little, Brown and Company.
- Goe, L., Bell, C., & Little, O. (2008). Approaches to Evaluating Teacher Effectiveness: A Research Synthesis. *National Comprehensive Center for Teacher Quality*.

- Goldhaber, D. D., & Brewer, D. J. (2000). Does teacher certification matter? High school teacher certification status and student achievement. *Educational Evaluation and Policy Analysis*, 22(2), 129-145.
- Goleman, D. (1995). *Emotional intelligence*. New York, NY: Bantam Books. Toronto, Canada : Multi-Health Systems.
- Grossman, P. L., & Schoenfeld, A. (2005). Teaching subject matter. In L. Darling-Hammond, J. Bransford, P. LePage, K. Hammerness & H. Duffy (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp.201–231). San Francisco: Jossey-Bass.
- Guarino, C. M., Santibanez, L., & Daley, G. A. (2006). Teacher recruitment and retention: A review of the recent empirical literature. *Review of Educational Research*, 76(2), 173-208.
- Hanushek, E. A. (2011). The economic value of higher teacher quality. *Economics of Education Review*, 30(3), 466-479.
- Harris-Van Keuren, C. (2010). Influencing the status of teaching in central Asia. In Silova, I. (Eds.), *Globalization on the Margins: Education and Postsocialist Transformations in Central Asia* (pp.173-202). Charlotte, N.C.: Information Age Pub.
- Hayes, D., Mills, M., Christie, P., & Lingard, B. (2006). Teachers and schooling making a difference. *NSW, Australia: Allen & Unwin*.
- Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of educational research*, 79(1), 491-525.

- Johnson, M. (2004). The legacy of Russian and Soviet education and the shaping of ethnic, religious, and national identities in Central Asia. In Heyneman, S. P., & DeYoung, A. J. (Eds.), *The challenges of education in Central Asia* (pp. 21-36). IAP.
- Kidwell, K. (2013). Characteristics of Highly Effective Teaching and Learning (CHETL). Retrieved June 15, 2014, from [http://education.ky.gov/curriculum/docs/pages/characteristics-of-highly-effective-teaching-and-learning-\(chetl\).aspx](http://education.ky.gov/curriculum/docs/pages/characteristics-of-highly-effective-teaching-and-learning-(chetl).aspx)
- Killen, R. (2006). *Effective teaching strategies: Lessons from research and practice*. Sydney, Australia: Social Science Press.
- Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology, 102*(3), 741.
- Kleickmann, T., Richter, D., Kunter, M., Elsner, J., Besser, M., Krauss, S., & Baumert, J. (2013). Teachers' Content Knowledge and Pedagogical Content Knowledge The Role of Structural Differences in Teacher Education. *Journal of Teacher Education, 64*(1), 90-106.
- Kultumanova A. Zh, Medetbekova A. Zh, Nogaybayeva G. A., Kusidenova G. K., Alshimbayeva S. B., Turtkarayeva A. B., Aktayeva A. B., SadykovaZh. E. (2012). National report on the state and development of educational system of the Republic of Kazakhstan (reduced version). Astana:NCESA.
- Landa, J. M. A., López-Zafra, E., De Antoñana, R. M., & Pulido, M. (2006). Perceived emotional intelligence and life satisfaction among university teachers. *Psicothema, 18*(Suplemento), 152-157.
- Leyden, R., & Shale, E. (2012). *What teachers need to know about social and emotional development*. Camberwell, Vic.: ACER Press.

- Maharana, N. (2013). A study of emotional intelligence of higher secondary school teachers of madhyapradesh. *Journal of Education, 1*(1), 3-4.
- Marzano, J. S., & Pickering, D. (2003). *Classroom management that works: Research based strategies for every teacher*. Upper Saddle River, N.J.: Merrill.
- Maslow, A. (1962). *Toward a psychology of belonging*. Princeton, NJ: Van Nostrand.
- Mavroveli, S., & Sánchez- Ruiz, M. J. (2011). Trait emotional intelligence influences on academic achievement and school behaviour. *British Journal of Educational Psychology, 81*(1), 112-134.
- Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In Salovey P. & Sluyter D. (Eds.). *Emotional development and emotional intelligence: Implications for educators* (pp. 3– 31). New York, NY: Basic Books.
- McBer, H. (2001). Research into teacher effectiveness. *Early Professional Development Of Teachers, 68* (216), 1-69.
- Metzler, J., & Woessmann, L. (2012). The impact of teacher subject knowledge on student achievement: Evidence from within-teacher within-student variation. *Journal of Development Economics, 99*(2), 486-496.
- Minor, L. C., Onuegbuzie, A. J., Witcher, A. E., & James, T. L. (2002). Preservice teachers' educational beliefs and their perceptions of characteristics of effective teachers. *Journal of Educational Research, 96*(21), 116-127.
- Minor, L. C., Onwuegbuzie, A. J., Witcher, A. E., & James, T. L. (2002). Preservice teachers' educational beliefs and their perceptions of characteristics of effective teachers. *The Journal of Educational Research, 96*(2), 116-127.
- MOES.(2010). State program of education development in the republic of kazakshtan for 2011-2020. Astana

- MOES. (2014). International scholarship “bolashak”: Order of participation. Retrieved May 24, 2014, from http://egov.kz/wps/portal/Content?contentPath=/egovcontent/edu_postgraduate/arti
- MOES.(n.d.).Education : Expenditure on education as % of GDP (from government sources). Retrieved June 6, 2014, from <http://data.uis.unesco.org/?queryid=181>
- Monk, D. H. (1994).Subject area preparation of secondary mathematics and science teachers and student achievement.*Economics of education review*, 13(2), 125-145.
- Morris, P., Raver, C. C., Millenky, M., Jones, S., & Lloyd, C. M. (2010).*Making Preschool More Productive: How Classroom Management Training Can Help Teachers*.New York: MDRC.
- Muijs, D. (2011). *Doing quantitative research in education with SPSS*. Los Angeles: Sage.
- Nahas, V. L., Nour, V., & Al-Nobani, M. (1999). Jordanian undergraduate nursing students’ perceptions of effective clinical teachers. *Nurse education today*, 19(8), 639-648.
- Nardi, P. M. (2006). *Doing survey research: A guide to quantitative methods* (2nd ed.). Boston, MA: Pearson Education.
- NHDR (2004). National Human Development Report Kazakhstan 2004: Education for All: The Key Goal for a New Millennium (UNDP).
- Nikoopour, J., Farsani, M. A., Tajbakhsh, M., & Kiyai, S. H. S. (2012).The relationship between trait emotional intelligence and self-efficacy among Iranian EFL teachers.*Journal of Language Teaching and Research*, 3(6), 1165-1174.
- O'Hara, S., & Pritchard, R. H. (2008).Meeting the challenge of diversity: Professional development for teacher educators.*Teacher Education Quarterly*, 35(1), 43-61.

- OECD. (2001). *The Well-being of Nations: The Role of Human and Social Capital*. Organisation for Economic Cooperation and Development. Paris. Retrieved July 7, 2014, from <http://www.oecd.org/site/worldforum/33703702.pdf>
- OECD. (2007). *Reviews of National Policies for Education Reviews of National Policies For Education: Higher Education in Kazakhstan 2007*. Organisation for Economic Cooperation and Development. doi:10.1787/19900198-en
- OECD. (2014). *Reviews of national policies for education: Secondary education in Kazakhstan*. Organisation for Economic Co-operation and Development. doi:10.1787/9789264205208-en
- Onwuegbuzie, A. J., Witcher, A. E., Collins, K. M., Filer, J. D., Wiedmaier, C. D., & Moore, C. W. (2007). Students' perceptions of characteristics of effective collegeteachers: A validity study of a teaching evaluation form using a mixed-methods analysis. *American Educational Research Journal*, 44(1), 113-160.
- Peart, N. A., & Campbell, F. A. (1999). At-Risk Students' Perceptions of Teacher Effectiveness. *Journal for a just and caring education*, 5(3), 269-84.
- Peterson, P. L., Fennema, E., Carpenter, T. P., & Loef, M. (1989). Teacher's pedagogical content beliefs in mathematics. *Cognition and Instruction*, 6(1), 1-40.
- Petrides, K. V. (2001). *A psychometric investigation into the construct of emotional intelligence*. University College London: Doctoral dissertation.
- Petrides, K. V., & Furnham, A. (2009). *Technical manual for the trait emotional intelligence questionnaires (TEIQue)*. London: London Psychometric Laboratory.
- Petrides, K. V., Pita, R., & Kokkinaki, F. (2007). The location of trait emotional intelligence in personality factor space. *British Journal of Psychology*, 98, 273-289.
- Platsidou, M. (2010). Trait emotional intelligence of Greek special education teachers in relation to burnout and job satisfaction. *School Psychology International*, 31(1), 60-

76.

- Richards, J. C. (1998). What's the use of lesson plans? In J. C. Richards (Ed.), *Beyond training*. New York: Cambridge University Press.
- Rivkin, S., E. Hanushek and J. Kain (2005). Teachers, schools, and academic achievement. *Econometrica*, 73(2), 417-458.
- Rock, D. A. (1997). *Determinants of achievement gain in high school: a special paper from NASSP*. Reston, Va.: Published by the National Association of Secondary School Principals.
- Rockoff, J.E. (2004). The impact of individual teachers on students' achievement: Evidence from panel data. *American Economic Review*, 94(2), 247-252.
- Ross, L. W. (1960). Some Aspects of Soviet Education. *Journal of Teacher Education*, 11(4), 539-552.
- Safavi, F. (1997). The challenge of management education and development in Kazakhstan: Opportunities and threats in a changing environment. *Journal of Management Development*, 16(3), 167-184.
- Sanders, W. L., & Rivers, J. C. (1996). Cumulative and residual effects of teachers on future student academic achievement.
- Santrock, J. W. (2011). *Educational psychology* (3rd ed.). Boston: McGraw-Hill.
- Schneider, M. (2002). Do School Facilities Affect Academic Outcomes?.
- Schunk, D. H. (1995). Self-efficacy, motivation, and performance. *Journal of Applied Sport Psychology*, 7(2), 112-137.
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational researcher*, 15(2), 4-14.
- Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1-23.

- Shulman, L. S. (1994). Those who understand: Knowledge growth in teaching. *Teaching and learning in the secondary school*, 125-133.
- Silova, I. (2010). *Globalization on the margins: education and postsocialist transformations in Central Asia*. Charlotte, N.C.: Information Age Pub.
- Sirin, S. R. (2005). Socioeconomic status and academic achievement: A meta-analytic review of research. *Review of educational research*, 75(3), 417-453.
- Skinner, D. (2010). *Effective teaching and learning in practice*. London: Continuum International Pub. Group.
- Stronge, J. H. (2007). *Qualities of effective teachers* (2nd ed.). Alexandria, Va.: Association for Supervision and Curriculum Development.
- Tamir, P. (1988). Subject matter and related pedagogical knowledge in teacher education. *Teaching and Teacher Education*, 4(2), 99-110.
- Tang, F. I., Chou, S. M., & Chiang, H. H. (2005). Students' perceptions of effective and ineffective clinical instructors. *The Journal of nursing education*, 44(4), 187-192.
- Thorndike, E.L. (1920). Intelligence and its use. *Harper's Magazine*, 140, 227-235.
- Tschannen-Moran, M., & Hoy, A. W. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and teacher Education*, 23(6), 944-956.
- Walker, R. J. (2008). Twelve characteristics of an effective teacher: A longitudinal, qualitative, quasi-research study of in-service and pre-service teachers' opinions. *Educational Horizons*, 87(1), 61-68.
- Wang, M. C., Haertel, G. D., & Walberg, H. J. (1997). What Helps Students Learn? Spotlight on Student Success. Philadelphia, PA: Mid-Atlantic Regional Educational Laboratory .
- Wayne, A. J., & Youngs, P. (2003). Teacher characteristics and student achievement gains:

- A review. *Review of Educational research*, 73(1), 89-122.
- Wenglinsky, H. (2000). How teaching matters: Bringing the classroom back into discussions of teacher quality.
- Woessmann, L. (2011). Cross-country evidence on teacher performance pay. *Economics of Education Review*, 30(3), 404-418.
- Wong, A. F., Chong, S., Choy, D., & Lim, K. M. (2012). Investigating changes in pedagogical knowledge and skills from pre-service to the initial year of teaching. *Educational Research for Policy and Practice*, 11(2), 105-117.
- Woolfolk, A. (2014). *Educational psychology: Active Learning Edition* (12th ed.). Boston: Pearson.
- Wright, S. P. Horn, S. P. & Sanders, W. L. (1997). Teacher and classroom context effects on student achievement: Implications for teacher evaluation. *Journal of Personnel Evaluation in Education*, 11(1), 57-67.

Appendix A: Questionnaire

BACKGROUND INFORMATION (for teachers)

These questions are about you and your professional background. In responding to the questions, please mark the appropriate box and write the answer, where it is necessary.

1. What is your gender?
 - a. Female
 - b. Male

2. How old are you?
 - a. Under 25
 - b. 25-29
 - c. 30-39
 - d. 40-49
 - e. 50+

3. How long have you been working as a teacher?
 - a. 0-4 years
 - b. 5-10 years
 - c. more than 10 years

4. What subject do you teach at school?
 - Social Sciences (History, Citizenship)
 - Natural Sciences (Biology, Chemistry)
 - Information and communication technologies
 - Exact Sciences (Math, Physics)
 - Languages

BACKGROUND INFORMATION (for students)

These questions are about you and your academic background. In responding to the questions, please mark the appropriate box and provide a written answer, where it is necessary.

1. What is your gender?

Female

Male

2. What grade do you study in?

8

9

10

11

3. What is the average score of your school marks for the previous semester from on a scale from 2 to 5 (for instance, 4,5 out of 5)?

- Please complete this questionnaire on your own and in quiet conditions.
- Please answer to what extent you agree or disagree that particular teacher's knowledge, abilities and actions' contribute to students' academic achievement. Put a circle around the number that best reflects your degree of agreement or disagreement. There is no right or wrong answer.
- You have seven possible responses: 1=strongly disagree, 2= mostly disagree, 3= slightly disagree, 4 = undecided, 5 = slightly agree, 6 = mostly agree, 7= strongly agree
- Don't think too long about the exact meaning of the statements.
- Try to answer as accurately as possible.
- Many thanks for your time and interest!

In your opinion, to what extent do you agree that the following knowledge, abilities and actions of a teacher contribute to students' academic achievement?

strongly disagree

strongly agree

1. Chooses appropriate teaching strategy for teaching a particular topic.	1	2	3	4	5	6	7
2. Holds up and is capable of dealing with stress.	1	2	3	4	5	6	7
3. Asks students the right questions to facilitate their learning.	1	2	3	4	5	6	7
4. Is able to show learners the connection between his/her subject knowledge and real life.	1	2	3	4	5	6	7
5. Has good and fulfilling personal relationships with the people close to him.	1	2	3	4	5	6	7
6. Acquires appropriate teaching materials for the lessons.	1	2	3	4	5	6	7
7. Considers information carefully before making decisions and is unlikely to give in to his/her urges.	1	2	3	4	5	6	7
8. Uses appropriate forms of assessment.	1	2	3	4	5	6	7
9. Is internally driven by a need to produce high-quality work and is unlikely to give up easily.	1	2	3	4	5	6	7
10. Uses different ways/ methods to develop students understanding of subject.	1	2	3	4	5	6	7
11. Applies appropriate classroom management techniques.	1	2	3	4	5	6	7

12. Represents his/her in a way that pupils can comprehend.	1	2	3	4	5	6	7
13. Is capable of communicating his/her feelings to others.	1	2	3	4	5	6	7
14. Manages student discipline.	1	2	3	4	5	6	7
15. Promotes pupils to think logically in solving problems	1	2	3	4	5	6	7
16. Uses appropriate strategies to monitor student behaviors.	1	2	3	4	5	6	7
17. Determines appropriate teaching methods for the lessons.	1	2	3	4	5	6	7
18. Teaches students according to their pace.	1	2	3	4	5	6	7
19. Manages students with behavioral and learning problems.	1	2	3	4	5	6	7
20. Responds sensitively to different student needs.	1	2	3	4	5	6	7
21. Expects positive things to happen in his/her life and students' lives and tends to look on the bright side	1	2	3	4	5	6	7
22. Takes the time to learn about students' background, interests, and learning styles.	1	2	3	4	5	6	7
23. Poses questions to correct misconceptions	1	2	3	4	5	6	7
24. Does not hesitate to stand up for his/her rights and has leadership qualities.	1	2	3	4	5	6	7
25. Infuses critical thinking appropriately in the lessons.	1	2	3	4	5	6	7
26. Uses problem-solving tasks in the lesson.	1	2	3	4	5	6	7
27. Develops students' interest in learning.	1	2	3	4	5	6	7
28. Doesn't tolerate bullying, teasing, and other put-down behavior in the classroom.	1	2	3	4	5	6	7
29. Develops creativity in the lessons.	1	2	3	4	5	6	7
30. Has a positive view of himself/herself and his/her achievements.	1	2	3	4	5	6	7
31. Exhibit good knowledge of his/her subject.	1	2	3	4	5	6	7
32. Diagnoses students' learning difficulties.	1	2	3	4	5	6	7
33. Is generally cheerful and feels good about himself/herself and his/her life in general.	1	2	3	4	5	6	7
34. Understands where pupils have trouble in learning their subject.	1	2	3	4	5	6	7
35. Can control his/her emotions.	1	2	3	4	5	6	7
36. Provide pupils opportunity to think and respond	1	2	3	4	5	6	7
37. Is aware of the topics difficult for students in the classroom.	1	2	3	4	5	6	7
38. Collaborates with colleagues who work in the same subject area.	1	2	3	4	5	6	7
39. Is able to cope with change and adapt to new things and environments.	1	2	3	4	5	6	7
40. Incorporates information and communication technology (ICT) effectively in the classroom.	1	2	3	4	5	6	7
41. Sees things from another person's point of view.	1	2	3	4	5	6	7
42. Is updated with the latest information on the subject taught.	1	2	3	4	5	6	7
43. Produces his/ her own teaching materials for the lessons	1	2	3	4	5	6	7

44. Regularly visits subject area conferences.	1	2	3	4	5	6	7
45. Has very good social skills.	1	2	3	4	5	6	7
46. Adapts to variations in ability and background of the student.	1	2	3	4	5	6	7
47. Is good at reading other people's feelings.	1	2	3	4	5	6	7
48. Possesses an in-depth knowledge of how to represent the subject matter to learners	1	2	3	4	5	6	7
49. Provides activities to correct misconceptions.	1	2	3	4	5	6	7
50. Is good at managing other people's emotions (e. g. by consoling them or calming them down).	1	2	3	4	5	6	7
51. Arouses students' interest in his/her subject area.	1	2	3	4	5	6	7
52. Prepares for the lesson in advance.	1	2	3	4	5	6	7
53. Researches in his/her subject area.	1	2	3	4	5	6	7
54. Asks students the right questions to facilitate their learning.	1	2	3	4	5	6	7
55. Communicates concepts well	1	2	3	4	5	6	7

Appendix B: Informed Consent forms

INFORMED CONSENT FORM

“EXPLORING THE INFLUENCE OF TEACHER’S PEDAGOGICAL SKILLS, SUBJECT KNOWLEDGE AND EMOTIONAL INTELLIGENCE ON STUDENTS’ ACADEMIC ACHIEVEMENT: PERCEPTIONS OF SECONDARY SCHOOL TEACHERS AND STUDENTS”

You are invited to participate in a research study on the influence of teacher’s pedagogical skills, subject knowledge and emotional intelligence on students’ academic achievement.

You will be asked to complete a questionnaire that asks you to provide some background information about you and examines your perception about the influence of teacher’s pedagogical skills, subject knowledge and emotional intelligence on students’ academic achievement.

Your participation will take approximately 45 minutes.

There are no risks associated with your participation in the study. Although there will be no direct benefits to you for taking part in this study, the participation in the study will contribute to better understanding of the influence of teacher’s emotional intelligence, pedagogical knowledge and skills from students and perceptions. This, in turn, may provide useful data for educational policy-makers and teachers. The research results may be taken into account for conducting teacher trainings for both pre-service and in-service teachers and implementing educational reforms. The summary of the results of the study will be sent to the school principal via e-mail.

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. Your decision whether or not to participate in this study will not affect your employment or grades in school. 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:

If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, contact the researcher, Dilyara Tashibayeva, dilyara.tashibayeva@nu.edu.kz, +77076629507.

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 709350. You can also write an email to the NUGSE Research Committee at gse@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.

PARENTAL INFORMED CONSENT FORM
**“EXPLORING THE INFLUENCE OF TEACHER’S PEDAGOGICAL SKILLS,
SUBJECT KNOWLEDGE AND EMOTIONAL INTELLIGENCE ON STUDENTS’
ACADEMIC ACHIEVEMENT: PERCEPTIONS OF SECONDARY SCHOOL
TEACHERS AND STUDENTS”**

Your child is invited to participate in a research study on the influence of teacher’s pedagogic knowledge and skills and emotional intelligence on students’ academic achievement. Your child will be asked to complete the questionnaires that examine your perception about the influence of teacher’s pedagogic knowledge and skills and emotional intelligence on students’ academic achievement.

There are no risks associated with your child’s participation in the study. Although there will be no direct benefits to your child for taking part in this study, the participation in the study will contribute to better understanding of the influence of teacher’s emotional intelligence, pedagogical knowledge and skills from students and perceptions. This, in turn, may provide useful data for educational policy-makers and teachers. The research results may be taken into account for conducting teacher trainings for both pre-service and in-service teachers and implementing educational reforms. The summary of the results of the study will be sent to the school principal via e-mail. Your decision whether or not to allow your child to participate in this study will not affect your child's grades or participation in school.

Your child’s participation in this study will take approximately 45 minutes.

If you have read this form and have decided to allow your child/student to participate in this study, please understand your child's participation is voluntary and your child has the right to withdraw his/her consent or discontinue participation at any time without penalty or loss of benefits to which he/she is otherwise entitled. Your child has the right to refuse to answer particular questions. Your child's individual privacy will be maintained in all published and written data resulting from the study.

CONTACT INFORMATION:

If you have any questions, concerns or complaints about this research study, its procedures, risks and benefits, you should ask the researcher, Dilyara Tashibayeva, Dilyara.tashibayeva@nu.edu.kz, +77076629507.

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 +77172709350. You can also write an email to the NUGSE Research Committee at gse@nu.edu.kz.

I (we) have read the information above and hereby consent to have my (our) child participate in this study by signing below.

Signature(s) of Parent(s) or Guardian

Date

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