

**Teachers' Experiences of the Updated Pedagogy within the Scope of the Curriculum  
Reform: A Case Study of Two Mainstream Schools in Kazakhstan**

Amir Azhmukhambetov

Master of Science

In

Educational Leadership

Nazarbayev University Graduate School of Education

June, 2020

Word count: 21655

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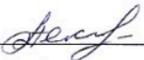
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## NUGSE RESEARCH APPROVAL DECISION LETTER

53 Kabanbay Batyr Ave.  
010000 Astana,  
Republic of Kazakhstan

1<sup>st</sup> November 2019

Dear Amir Azhmukhambetov

This letter now confirms that your research project entitled, '**Teachers' experiences of the updated pedagogy within the scope of the Curriculum reform: A case study of two mainstream schools in Kazakhstan**' has been approved following the revisions you have made recommended by the Graduate School of Education Ethics Committee of Nazarbayev University.

The changes recommended by the reviewer have been addressed and the proposed study now complies with all of the requirements of Nazarbayev University.

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

Yours sincerely



Prof Naureen Durrani

On behalf of Elaine Sharplin  
Chair of the GSE Research Committee  
Professor  
Graduate School of Education  
Nazarbayev University

Block C3, Room 5006  
Office: +7 (7172) 70 9371  
Mobile: +7 777 1929961  
email: [elaine.sharplin@nu.edu.kz](mailto:elaine.sharplin@nu.edu.kz)

**CITI training certificate**



Completion Date 09-Aug-2019  
Expiration Date 08-Aug-2022  
Record ID 32718635

This is to certify that:

**Amir Azhmukhambetov**

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### **Acknowledgement**

Foremost, I would like to extend my sincere gratitude to my supervisor Dr. Naureen Durrani for her valuable guidance, generous support, professionalism, immense knowledge and patience. Without your constant and constructive feedback, I would not be able to complete my thesis writing.

Also, I would like to express my thanks to NUGSE staff and faculty members for giving me an opportunity of being a student who enjoyed this two-year journey full of invaluable knowledge and experience.

I want to thank my beloved wife, Laura, and adorable son Alikhan, for believing in me in all my endeavours. Special thanks go to my parents and younger brother Akhmetbek for their love and support throughout my life.

Another word of gratitude goes to my uncle Gumar, his wife Elvira and son Ali for their hospitality while I was staying during intensive sessions. I want to thank my friends and groupmates who helped me immensely on this route.

Last but not least, my deepest gratitude goes to the staff of Nazarbayev Intellectual School of Kostanay, especially the English department for kind support and understanding.

### **Abstract**

During the early period of independence, the school education in Kazakhstan experienced various difficulties, such as ineffective curriculum and assessment practices inherited from Soviet times, as well as traditional teaching and learning approaches that formed overall teachers' pedagogy. The State requested The Organization for Economic Co-operation and Development (OECD) to review the curriculum of secondary school. The OECD reported that the school curriculum was mostly teacher-centred, and students obtained factual knowledge without knowing its practical implication. Therefore, Kazakhstan initiated the most drastic and far-reaching reform in secondary school education called the Updated Curriculum.

This study aimed to obtain a detailed insight into the teachers' actual experiences of the updated pedagogy within the scope of the curriculum reform in one urban and one rural mainstream school. The study employed a qualitative case study research design. The interview method was applied to answer the central research question: "How do teachers experience the pedagogic shift associated with the Updated Curriculum?" Eight teachers, four teachers from a rural and four from an urban mainstream school in Kostanay region were interviewed to explore teachers' experiences of the updated pedagogy thoroughly.

The findings of the study demonstrated that teachers in both schools had gained rich experiences of implementing the renewed pedagogy advocated by the reform. Most of them have positive attitudes and perceptions, although some teachers possess a negative attitude toward the Updated Curriculum. Nevertheless, teachers attempt to deliver the renewed curriculum, apply the updated assessment practice, and rely more on student-centred teaching approaches in their contextual realities. However, there are specific limitations such as issues with the updated subject programmes, discrepancies in some textbooks, big-class sizes, insufficient technical facilities and resources, and a lack of

continuous support from reform officers. These constraints are also an integral aspect that sustains teachers' overall experiences of the Updated pedagogy.

*Keywords: Updated Curriculum, curriculum reform, teachers' experiences.*

**Оқу бағдарламаны реформалау аясында мұғалімдердің жаңартылған педагогиканы бастан өткізу тәжірибесі: Қазақстанның екі орта білім беру мектептерін кейс-стади әдісі арқылы зерттеу**

**Аңдатпа**

Тәуелсіздіктің алғашқы жылдарында Қазақстанның орта білім беру жүйесі әртүрлі қиындықтарға кездесті. Мысалы, Кеңес Одағынан қалған оқу бағдарламасы мен бағалау тәжірибесі, сондай-ақ мұғалімдердің жалпы педагогикасын қалыптастырған оқытудың дәстүрлі тәсілдері еді. Мемлекет «Экономикалық ынтымақтастық және даму ұйымына» (ЭЫДҰ) орта мектептердің оқу бағдарламасын қайта қарауды өтінді. ЭЫДҰ хабарламасы бойынша, мектеп бағдарламасы негізінен мұғалімдерге бағытталғанын, ал оқушылар білімді қаншалықты практикада қолдану мәні бойынша түсінігі жоқ екенін айтып өтті. Сол себептен Қазақстан «Жаңартылған білім беру бағдарламасы» атты білім беру жүйесіндегі ең түбегейлі және алысқа апаратын реформаны бастамақшы болды.

Бұл зерттеу оқу бағдарламасын реформалау аясында бір қалалық және бір ауылдық жалпы білім беретін мектептерде жаңартылған педагогика мұғалімдерінің нақты тәжірибесі туралы толық түсінік алуына бағытталған. Зерттеуде кейс-стади зерттеуінің сапалы дизайны қолданылды. "Мұғалімдер жаңартылған оқу бағдарламасына байланысты педагогикалық өзгерісті қалай бастан өткереді?" деген зерттеудің басты сұрағына жауап алу үшін сұхбат әдісі қолданылды. Мұғалімдердің жаңартылған педагогиканы қолдану тәжірибесін мұқият зерттеу үшін әр мектептен төрт мұғалім қатыстырылды.

Зерттеу нәтижелері бойынша қалалық және ауылдық мектептердің мұғалімдері реформа арқылы енгізілген жаңартылған педагогиканы бастан өткізу мол тәжірибе жинақтағанын көрсетті. Олардың көпшілітерінің көзқарастары оң,

алайда кейбір мұғалімдердің жаңартылған оқу бағдарламасына теріс көзқарастар бар екені аңғарылды. Дегенмен мұғалімдер жаңартылған оқу бағдарламасын іске асыруға, бағалаудың жаңартылған тәжірибесін қолдануға, оқушыларға бағытталған оқу тәсілдеріне көбірек сүйенуге тырысады. Алайда жаңартылған пәндік бағдарламалар бойынша кейбір оқулықтардағы сәйкессіздіктер, сыныптардағы оқушылар санының көптігі, техникалық құралдардың жетіспеушілігі және ресурстардың жеткіліксіздігі, сондай-ақ реформа енгізушілер тарапынан тұрақты қолдаудың болмауы сияқты шектеулер бар. Бұл шектеулер жаңартылған педагогиканы бастан өткізудің жалпы тәжірибесін қалыптастырудың ажырамас аспектісі болып табылады.

*Тірек сөздер: жаңартылған оқу бағдарламасы, оқу бағдарламасын реформалау, мұғалімдердің тәжірибесі.*

**Опыт обновленной педагогики учителей в рамках реформирования  
образовательной программы: кейс-стади двух общеобразовательных школ  
Казахстана**

**Аннотация**

В ранний период независимости школьное образование в Казахстане сталкивалось с различными трудностями, такими как неэффективные учебные программы и практика оценивания, унаследованные от советских времен, а также традиционные методы преподавания и обучения, которые формировали общую педагогическую практику. Государство обратилось к Организации экономического сотрудничества и развития (ОЭСР) с просьбой пересмотреть учебную программу средней школы. ОЭСР сообщила, что школьная программа была, в основном, ориентирована на учителей, и учащиеся получали фактические знания без четкого представления о практических последствиях. Таким образом, Казахстан инициировал самую радикальную и далеко идущую реформу в сфере среднего школьного образования, которая называется Обновленное содержание образования.

Это исследование было направлено на то, чтобы получить подробное представление о фактическом опыте преподавателей в области обновленной педагогики в рамках реформирования образовательной программы в городской и сельской общеобразовательной школе. Использовался качественный подход исследования. Метод интервью был использован для сбора данных с целью получения ответа на центральный исследовательский вопрос: «Как учителя испытывают изменения в педагогической практике, связанные с обновленным содержанием образования?» Было проведено интервью с четырьмя учителями из каждой школы для тщательного изучения учительского опыта применения обновленной педагогики.

Результаты исследования показали, что учителя как в городских, так и в сельских школах приобрели богатый опыт применения обновленной педагогики, внедряемой реформой. У большинства из них позитивное отношение и восприятие, хотя некоторые учителя негативно относятся к обновленному содержанию образования. Тем не менее, учителя пытаются применять обновленные учебные программы, обновленную практику оценивания, больше использовать личностно-ориентированные подходы к обучению в своих контекстных реалиях. Однако существуют определенные ограничения, такие как проблемы с обновленными предметными программами, расхождения в некоторых учебниках, большое количество учащихся в классе, недостаточные технические средства и ресурсы, а также отсутствие постоянной поддержки со стороны лиц, внедряющих реформу. Эти ограничения также являются неотъемлемым аспектом, который формирует общий опыт обновленной педагогической практики.

*Ключевые слова: обновленное содержание образования, реформа учебной программы, опыт учителей.*

## Table of Contents

Author Agreement.....	ii
Declaration.....	iii
NUGSE Research Approval Decision Letter.....	iv
CITI training certificate.....	v
Acknowledgement.....	vi
Abstract .....	vii
Table of Contents .....	xiii
Chapter One: Introduction .....	1
1.1. Introduction.....	1
1.2. Policy implementation.....	3
1.3. Statement of the problem.....	6
1.4. Purpose of the Study .....	7
1.5. Research Questions.....	7
1.6. Definitions of Central Phenomena.....	8
1.7. Significance of the study.....	8
1.8. Outline of the study.....	9
Chapter Two: Literature Review.....	10
2.1. Introduction.....	10
2.2. Defining the concept of Curriculum.....	10
2.3. Implementing a change in curriculum.....	13
2.3.1. Power-coercive strategy of curriculum change.....	15
2.3.2. Empirical-rational strategy of curriculum change.....	16
2.3.3. Normative re-educative strategy of change.....	16

2.4. Teachers' engagement and experiences in the process of curriculum implementation.....	18
2.5. The challenges on the way to sustain teachers' positive experiences of curriculum innovations.....	21
2.6. Summary of the chapter.....	25
Chapter Three: Methodology .....	26
3.1. Introduction .....	26
3.2. Research design.....	26
3.3. Site and Sampling.....	29
3.4. Data Collection Tools.....	30
3.5. Data Collection Procedures.....	31
3.6. Data Analysis.....	34
3.7. Ethical Considerations.....	34
3.8. Summary of the chapter.....	35
Chapter Four: Findings.....	36
4.1. Introduction.....	36
4.2. Teachers' overall experiences of the Updated pedagogy.....	36
4.3. Teachers' experiences of the updated assessment practice.....	41
4.4. Teachers' experiences of the Updated pedagogy.....	45
4.5. Factors that influence the positive shift to the updated pedagogy and curriculum.....	50
4.6. Factors that prevent teachers from a complete shift to the Updated pedagogy and curriculum.....	53
4.7. Summary of the chapter.....	57
Chapter Five: Discussion.....	59

5.1.	Introduction.....	59
5.2.	The implementation of the Updated Curriculum.....	59
5.3.	Teachers' experiences of the curriculum reform and updated pedagogy.....	60
5.4.	Teachers' experience of the updated pedagogy.....	61
5.5.	Summary of the chapter.....	66
Chapter Six: Conclusion.....		67
6.1.	Introduction.....	67
6.2.	Revising research questions.....	67
6.3.	Research implications.....	71
6.4.	Research limitations.....	72
References.....		74
Appendices.....		81
Appendix A.....		81
Appendix B.....		86
Appendix C.....		92
Appendix D.....		93

**A List of Tables**

Table 1. The schedule of the Updated Curriculum implementation.....	5
Table 2. The characteristics of interview participants.....	30

## **Chapter One: Introduction**

### **1.1. Background**

Education has played a vital role in humanity's development since ancient times, as the significant explorations and breakthroughs in many spheres around the globe were completed thanks to people with excellent knowledge and creative mind. Therefore, various societies, communities, and scholars make considerable efforts day by day to improve and develop education in order to facilitate progress and overall achievements. Kazakhstan, as an independent state is not an exception. The country has faced numerous challenges since gaining independence, and the State has always had the intention to accelerate the educational sphere, especially school education by the continuous renewal of the content and curriculum (Bridges, 2014). In the process of educational development, Kazakhstan has launched various reforms. One of these policy initiatives implemented in secondary school education is called the Updated Curriculum. Mainstream schools have never faced such drastic curriculum reforms before. Therefore, it captures meticulous attention due to its broad scale and profound impacts.

There were substantial reasons for initiating such a massive curriculum reform in the history of independent Kazakhstan's education. After the dissolution of the Soviet Union, the traditional curriculum represented a model inherited from the Soviet education curriculum with minor reorganisations that Kazakhstan launched in the early period of independence as introducing Kazakh-oriented programmes and increasing instructional hours on Kazakhstani history and Kazakh language (Kissane, 2005). However, international studies criticised the model sharply due to its consistent focus on factual knowledge and memorisation that prevented students from acquiring the skills of the new century such as critical thinking, creativity and collaboration and developing the ability to implicate the knowledge practically in real life (McLaughlin et al., 2016, Yakavets, 2014;

OECD, 2014;). To illustrate, the Organisation for Economic Cooperation and Development (OECD) was among these studies commissioned by the State to review the content of the secondary school curriculum. After careful examination, it proved that the curriculum remained mostly teacher-centred, and students obtained strong subject knowledge without a precise idea of practical application (OECD, 2014). In addition, the OECD (2014) found: “this narrowly academic, heavily theoretical curriculum must be particularly unrewarding for the less academic students, who must spend almost all their school time on activities they are not good at and for which they can see limited practical use” (p. 93). The following characteristic describes the congestion of the traditional curriculum by academic subjects and the exclusion of non-academic courses such as music, dance and art after 7th grade, which made the learning of less-able students less engaging. As a result, slow learners experienced a lack of interest and motivation to study due to the inaccessibility and complexity of the content that further caused gaps in students' academic achievements (OECD, 2014).

Furthermore, Kazakhstan took participation in the Programme for International Student Assessment (PISA) in 2009 and gained mediocre results in mathematics, reading literacy and science (Breeding, Trembley, & Rogers, 2013). The low results were a negative consequence of teaching ineffective curriculum, developing solely theory-based knowledge without functional literacy and applying out-of-date teaching approaches in learning (Fimiyyar, 2014; Yakavets, 2014). Therefore, the implementation of the Updated Curriculum had become an inevitable step to reform secondary education to address those limitations indicated by abovementioned international studies.

Taking into consideration all recommendations, the State set a high priority on improving the quality of education at school context. Thus, it has initiated a far-reaching reform called “obnovlennoe sodержanie obrazovaniia” (transliteration of the Updated

Curriculum). There are many variants of the term in use including upgraded curriculum, new curriculum, renewed curriculum and Updated Curriculum. The study finds the term “Updated Curriculum” relevant to use further in the chapters. The principal purpose and philosophy of the Updated Curriculum is to preserve the most excellent traditional teaching practices and integrate the world’s best practices to secondary school context throughout the Republic.

## **1.2. Policy Implementation**

The Updated Curriculum was developed within five years and launched in 2016-2017 academic year. Before that, the Nazarbayev Intellectual Schools (NIS) network first approved the Updated Curriculum. NIS schools have become leading educational institutions in Kazakhstan headed by Autonomous Educational Organisation ‘Nazarbayev Intellectual Schools’ (AEO NIS). The First President of the Republic of Kazakhstan Nursultan Nazarbayev set a priority goal for AEO NIS to become “an experimental platform to develop, monitor, study, analyse, pilot, implement, and realise modern educational programmes: primary (including the pre-school level), lower secondary and upper secondary” (AEO NIS, 2018 p. 3). In addition, the State issued the special Law ‘On the Status of Nazarbayev University, Nazarbayev Intellectual Schools, and Nazarbayev Foundation’ that regulates and supports NIS schools functioning in the sphere of education in Kazakhstan. The fulfilment of particular objectives and further development of NIS schools has led to the emergence of the new aim to disseminate NIS experience to mainstream context, which was emphasised in the President’s January 2012 address Socio-economic Modernisation: The Main Vector of Kazakhstan’s Development. Therefore, NIS’s approved curriculum has become a model-base that provides a transition to the Updated Curriculum outlined legally in the 2016–2019 State Programme for Development of Education and Science (AEO NIS, 2018).

The NIS curriculum became the core source of policies and approaches necessary for updating the curriculum of mainstream schools. It integrates “the best national and international experience” and organises the content in a spiral structure, which implies in-depth learning of a subject from grade to grade (AEO NIS, 2018 p. 5). In addition, the Updated Curriculum renews the traditional teaching approaches ensuring teachers shift from teacher-centred pedagogy towards learner-centred pedagogy in order to develop students' critical thinking, problem-solving and research skills.

Alongside curriculum dissemination, NIS offers substantial methodological support to mainstream schools in the process of implementing the Updated Curriculum. The President has bestowed NIS network with the status of regional methodological centres, which facilitated the branches of NIS in provinces to organise many professional development courses, workshops, seminars and training throughout the country. The National Center for Professional Development “Orleu” and the Center of Excellence (CoE), the affiliated branch of Autonomous Educational Organisation “Nazarbayev Intellectual Schools” conducted The Multilevel Programme Courses for teachers from 2012 to 2015 (MoES, 2016). By this period, the CoE has developed 81 educational programmes within the Updated Curriculum reform, trained 253 579 teachers, 4 174 school administrative staff members within the scope of the current reform initiative (AEO NIS, 2018).

In addition, the former Minister of Education and Science in Kazakhstan, Yerlan Sagadiev reported that in 2018, additionally, 73,000 teachers attended courses. Around 205 thousand teachers (67%), who teach based on the Updated Curriculum, had their salaries raised by 30% in accordance with the decree of the State's President (Malakshinova, 2018).

To support the implementation, there has been developed the route map of realisation of the current reform in mainstream schools of both urban and rural area (MoES, 2016). The implementation process was launched in the 2016-2017 academic year from the 1st grades in accordance with the transitioning schedule (MoES, 2016). The schedule of the transition demonstrates the precise time frames. The transitioning route of the Updated Curriculum is working and demonstrating results in the country.

*Table 1. The schedule of the Updated Curriculum implementation*

<b>Time frames</b>	<b>Grades</b>
September 1st, 2016 2016-2017 academic year	Grade 1
September 1st, 2017 2017-2018 academic year	Grade 1, 2, 5, 7
September 1st, 2018 2018-2019 academic year	Grade 1, 2, 3, 5, 6, 7, 8, 10
September 1st, 2019 2019-2020 academic year	Grade 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

The Updated Curriculum has introduced essential amendments in the following areas of school education:

- A significant revision of subject programmes emphasizing the content that will help students to obtain knowledge and apply it in practice, as well as develop the twenty-first-century skills such as critical thinking, creativity and collaboration. The curriculum has gained a spiral feature when the content is repeatedly learnt in-depth from grade to grade. Also, the Updated Curriculum introduced brand-new textbooks written under revised subject programmes.

- Implementation of the criteria-based assessment which changes assessment procedures completely. Instead of traditional 5-scale grading, teachers conduct a formative and summative assessment in accordance with developed criteria and descriptors.

- A shift from traditional teacher-centred to learner-centred teaching approaches and strategies, which means that teachers do not merely teach the content but facilitate and

encourage students' independent learning. Teachers apply active teaching, group work, project-based learning and Information and Communications Technology (ICT).

- Introduction to the concept of trilingual education. Science subjects, as biology, chemistry, physics and ICT are taught in the English language at upper secondary school. Geography and Kazakhstani history are taught in Kazakh, World history, physical education and ICT at lower secondary school are taught in the Russian language regardless of the language instruction (Ivanova, 2017).

These are the significant changes that have been implemented from the 1st grade to 10th grade in a very short time. Also, the reform put into action the reduction of workdays, lesson duration from 45 minutes to 40 minutes, the amount of students' home tasks and paperwork for teachers.

The above-mentioned amendments constitute the Updated Curriculum and its purposes. Alongside, the MoES develops methodical guidelines and recommendations, textbooks, digital resources and conduct continuing professional development courses to support teachers and educators of mainstream schools (MoES, 2016). These numerous activities are planned to complete the transitioning in time and to fulfil all the aims and objectives of the Updated Curriculum in terms of improving secondary school education in Kazakhstan.

### **1.3. Statement of the problem**

Despite the ongoing process of the Updated Curriculum implementation, there appeared concerns from the vast majority of parents and the whole society about various limitations appearing within the reform implementation processes. In addition, one of the important group of stakeholders, which is teachers, might struggle immensely at the workplaces trying to understand and work in accordance with the curriculum reform. The main difficulties are teachers' experiences of the updated pedagogy, new assessment

system, teaching science subjects in English at upper secondary school and applying the new teaching methodologies in practice.

Moreover, many schools in regions and rural areas are equipped insufficiently, which might be a severe barrier for teachers to reorganize their work within the scope of the Updated Curriculum. The named novelties promoted by the reform requires modern equipment like computers, interactive whiteboard, as well as growing number of stationaries which is hardly found in rural areas which include many ungraded schools but even at urban mainstream schools. As a result, teachers have to cope with many inconveniences that can affect their attitude to the reform in a negative way. Thus, this study will make efforts to investigate teachers' experiences of the updated pedagogy within the scope of the curriculum reform, as well as attempt to check the effectiveness of the reform implementation from the teachers' perspectives. The outcomes of this research might serve as a source of knowledge for the improvement of the implementation process.

#### **1.4. Purpose of the Study**

The purpose of the current qualitative study is to investigate teachers' experiences of the updated pedagogy of teachers within the scope of national curriculum reform in one urban and one rural secondary school in Kostanay region, Kazakhstan. Teachers are an essential element in the educational process and having known insights into their experiences whether it is positive or negative can help policymakers to rationalize the process of implementation of the reform.

#### **1.5. Research Questions**

Creswell stated (2012) "the central question is the overarching question you explore in a research study" (p. 132).

The following research question is formulated in this study:

**Central Question:** How do teachers experience the pedagogic shift associated with the Updated Curriculum?

**Sub-question #1:** How do teachers understand their expected role and that of their students within the revised pedagogy?

**Sub-question #2:** What do teachers say they do in order to shift their pedagogy according to the Updated Curriculum?

**Sub-question #3:** What constraints do teachers experience in shifting their pedagogy, and how could they be supported in the shift from a teacher- to a learner-centred pedagogy?

**Sub-question #4:** How do teachers see the impact of their revised pedagogy on themselves and their students?

#### **1.6. Definitions of Central Phenomena**

The central phenomenon is teachers' actual experiences of the updated pedagogy within the scope of implementing the Updated Curriculum in Kazakhstani mainstream context.

In addition, the Updated Curriculum revises the model of secondary school education, its curriculum, subject programmes, textbooks, as well as introduces a completely new assessment practice and facilitates a shift to learner-oriented teaching approaches.

#### **1.7. Significance of the study**

The current study is significant as it can make a valuable contribution to research on the Updated Curriculum implementation. The Updated Curriculum has become the most radical policy initiative ever experienced in Kazakhstani school education. Therefore, this research might produce significant implications for the field based on exploration of teachers' actual experiences of the imposed changes at schools. Teachers can benefit from the study finding an excellent opportunity to share experiences and voice their concerns.

Policymakers, in turn, can address those concerns in order to rationalize the process of implementation.

### **1.8. Outline of the study**

The paper consists of six chapters. Chapter One: Introduction outlines the educational context of Kazakhstan that preceded the Updated Curriculum, overview of the changes promoted within the reform, research purpose, research questions, and discusses the significance of the study. Chapter Two reviews relevant literature on the topic of research touching such aspects as curriculum definition and change, the role of teachers' experiences and engagement in the process of curriculum policy implementation. Chapter Three describes the research methodology including research design, the research site and sampling, data collection procedures, data analysis and ethical considerations of the current study. Chapter Four presents and discusses the findings. The results of the study are discussed with reference to research questions and reviewed literature in Chapter Five. The final chapter concludes the study by analyzing the results and revisiting research questions, as well as it presents the recommendations and discusses the limitations of the study.

## **Chapter Two: Literature Review**

### **2.1. Introduction**

This research aims to explore teachers' experiences of the updated pedagogy within the scope of national curriculum reform in one urban and one rural secondary school in Kostanay region, Kazakhstan. The study strives to answer the central research question: How do teachers experience pedagogic shift associated with the Updated Curriculum?

This section represents an overview of the relevant literature related to this research. This chapter discusses four major topics: (a) the definition of the concept "curriculum"; (b) implementing a change in the curriculum; (c) teachers' engagement and experiences in the process of implementing curriculum reform; and (d) challenges in sustaining teachers' positive experiences with curriculum innovations.

### **2.2. Defining the concept of Curriculum?**

It is highly important to arrive at a comprehensive definition of the concept, "curriculum", even when "defining the word curriculum is no easy matter" (Marsh, 2004, p.3). The word originated from the Latin word meaning a 'racecourse' that all students have to overcome during their period of schooling - acquiring sufficient knowledge and useful skills. Another theorist describes "the curriculum is the first criterion by which a school is judged" (Morris, 1955, p. 152). Many scholars expanded the term throughout the twentieth century and attempted to articulate a clearer and more precise interpretation of the notion (Marsh, 2004). Therefore, there are various definitions suggested by different scholars.

Morris (1955) explains curriculum as "a series of experiences through which we wish children to go in order to emerge with attitudes, feelings, understandings, skills which we deem it important for them to have" (p. 154). These series of experiences or reality acquire the nature of being graded in which learners interact, react and behave (Morris,

1955). In addition, Egan (1978) stated that a “curriculum is the study of any and all educational phenomena” (p. 71)., Egan (1978) figures out some important definitions of the term based on the interpretations of ancient philosophers Cicero and Rabirious in their works. Thus, the term “curriculum” was described using the statements as the temporal space or container people live in, as well as shift the focus on the content. These interpretations were further connected to the metaphorical extension of the curriculum, when the “racecourse” was full of obstacles that have to be overcome. These obstacles represented the things that have to be contained in an intellectual curriculum (Egan, 1978). During the Ancient and Middle Age periods, the definition maintained between the two views of “a container or contained”. These circumstances facilitated the curriculum designers and scholars articulate immensely important questions that construct the fundamental component of curriculum: “What should the curriculum contain?” and “What content should be used to exercise the Mind” (Egan, 1978, p. 66).

These discussions surrounding the meaning of the curriculum has led to the emergence of various approaches to the notion. Ornstein (1987) mentions:

A curriculum approach reflects a holistic position or a meta-orientation, encompassing the foundations of curriculum (the person's philosophy, view of history, view of psychology and learning theory, and view of social issues), domains of curriculum (common and important knowledge within the field), and the theoretical and practical principles of curriculum. An orientation expresses a viewpoint in relation to how curriculum is developed and designed, the role of the learner, teacher, and curriculum specialist in planning curriculum, the goals and objectives of the curriculum, and the important issues that need to be examined (p. 208).

The foregoing highlights the importance of approaches to curriculum and their influence on definitions. In addition, Ornstein suggested several definitions: 1) action plan or formal document that outlines strategies and approaches to achieve aspired goals; 2) experiences of learners within and out of school contexts; 3) viewing the curriculum with regard to the subject matter (Mathematics, History, etc.) and by grade levels (elementary, secondary etc.) (Ornstein, 1987).

Having become acquainted with various scholars and their interpretations of the concept "curriculum," it is possible to figure out common explanations of the term that is sufficiently understandable in a broader context of education. Therefore, "curriculum" represents specific educational policies, content, practices, principles, approaches, and requirements for organizing teaching and learning processes within various subjects and grade levels in the school contexts. At the same time, it embodies specific settings, experiences, interactions, and philosophy for teachers and students that fulfils the collective aims to obtain the required knowledge and content.

Many developed states have begun to implement various curriculum reforms in order to improve the quality of education. As a result, various policy documents represent individual explanation of the definition "curriculum". For example, the United Kingdom introduced the National Curriculum in 1988, which established a number of core and foundational subjects. This enactment serves as one of the definitions, which means that the curriculum represents itself in the form of permanent subjects, such as reading, logic, mathematics and others. Another explanation states that the curriculum has to contain subjects that are most advantageous in modern society. In addition, all planned learning within school environments can also be attributed to the curriculum. At the same time, some scholars see the curriculum as the dominance of learning experiences to obtain skills and knowledge within different learning sites. In contrast to the interpretations as

mentioned above, others claim that the curriculum has gained a modern characterization which means that students construct meaning from computer technologies. A further definition implies the questioning of authority and seeks for deeper meanings of human circumstances. Generally speaking, definitions of the curriculum vary, as there are problems posed by them (Marsh, 2014).

The field of curriculum studies is a vibrant scientific sphere that is still being developed in parallel with educational changes in modern times. Scholars, policymakers, educators, teachers and other people across countries understand, look and analyze the curriculum differently. Scholars attempt to see distinct “curriculum texts in context of the different approaches and definitions to curriculum” (Ornstein, 1987, p. 208). Therefore, the field of curriculum theory, planning and development studies facilitate improvements and best practices in the implementation of the curriculum within various social, economic and educational settings. In addition, the complexity of the curriculum implies the foundational aspects as definitions, characteristics, concepts and types of the curriculum. Historical views on psychological and learning theory, theoretical and practical principles, as well as goals and objectives are equally important while the curriculum is developed and designed in order to successfully implement it in a school context (Ornstein, 1987).

### **2.3. Implementing a change in the curriculum**

Many countries around the globe are working hard to facilitate improvements in the sphere of education by introducing various reforms. Those reforms require huge investments, as it is believed that successful outcomes of the educational initiatives will not only improve students' knowledge and academic achievement but will contribute to the development of the whole state and economic growth (Oijambo, 2009). Therefore, over the past decades, many nations launched important education reform movements to facilitate

positive changes and improve the level of education that will meet further the needs of the modern generation and society (Henson, 2015).

The curriculum plays a vital role in educational reform. To illustrate, Henson mentioned (2015) “curriculum is the primary vehicle for achieving the goals and objectives of a school, a focus on curriculum planning and development is naturally a top priority of education reform” (p.7). In this regard, Qiquan and Liya (2013) pointed out that “most of the large-scale worldwide educational changes began with curriculum” (p. 13). Therefore, reforming school education should inevitably start with changes in the curriculum.

Curriculum change within the structure of the education system is a standard process due to dramatic social changes and technological advances that our community experiences nowadays (Kelly, 2009). Kelly asserts (2009) that the education system has to provide continuous development and proper response to various changes in modern society and to increasing understanding of the educational processes (p. 5). Likewise, Henson (2015) contends that to “remain effective, the curriculum must be designed and modified to reflect the changes in society at large” (p. 8). In addition, Qiquan and Liya (2013) maintain: “Curriculum change is the core of education development (p. 13). Therefore, making changes to curriculum is a necessary process for education to meet the demands of the modern community, provide continuous improvement in the rapidly changing world, and maintain our understanding of educational processes.

First and foremost, it is essential to define the types of change and their distinctive characteristics. Newton and Tarrant (1992) popularized ‘reactive’ and ‘proactive’ change. Authors related both types of change directly to people as they are “the most important resource in any organization” and “that is the case in schools” (p. 11). Reactive change represents the situation when people at schools implement changes or innovations by devising and applying responses to others. In this case, changes are implemented to meet

the requirements of policymakers, administrators, change agents and other responsible people who call for systematic changes at schools. People do not produce changes but adapt to them by implementing the directives of authorities. Proactive changes mean that people do not adapt to changes but initiate them to their practices within workplaces for themselves because they see the urgent need for changes and have a strong desire to improve the current states of affairs. In educational organizations, some enthusiastic teachers can become proactive in order to balance the objectives provided by superiors and implement necessary alterations. To illustrate, Newton and Tarrant stated (1992) that “the path to proacting are the allocation of time and the decision about objectives” which shows that people do not become discouraged due to emerging circumstances but devote sufficient time for careful planning and implement purposeful changes (p. 11). Exploring both types of change helps to develop an understanding of prerequisites of teachers’ reactions to changes at schools, especially when they are exposed to such dramatic ones as curriculum change.

Another critical point to discuss is that curriculum change can be framed in accordance with specific change strategies and types of change. Chin and Benne (1976) suggested three common strategies for change: power-coercive, empirical-rational, and normative-reeducative (as cited in Quinn, 2004). Those strategies represent specific organizational structures that could be established in school contexts. For example, centralized institutions apply power-coercive and empirical rational change approaches, while decentralized institutions manage to use normative-reeducative strategy (White, 1988 & Markee, 1997 as cited in Quinn, 2004). Discussing the benefits and drawbacks of each strategy would help to develop a better understanding of what strategy would effectively drive successful change in various contexts, including educational institutions.

### **2.3.1. Power-coercive strategy of curriculum change**

The power-coercive strategy of curriculum change is commonly used in school education around the world. This strategy is put into action when a decision to initiate changes are managed by policymakers and external education department administrators. It means that outside change agents order decisions that do not include consultations with teachers and students who are directly associated with the curriculum. Organizations with explicit hierarchal structures without low-level staff participation employ this top-down approach to change. However, this strategy does not lead to individual initiatives of teachers who become “passive recipients” as they cannot make their contributions to curriculum improvement (Quinn, 2004, p. 97).

### **2.3.2. Empirical-rational strategy of curriculum change**

This approach is similar to the power-coercive strategy of change due to functioning within centralized hierarchal structures. Policymakers, administrators and governmental bodies hold the knowledge and manage control over decisions, while teachers' participation is reduced. The focus is on enhancing stakeholders' knowledge of the reform, emphasizing the benefits of implemented curriculum changes. Among administrators of change, there are researchers who conduct valuable studies to find out research-based evidence which is necessary to justify changes (Quinn, 2004). By contrast, the advocates of power-coercive “use authoritative tactics to induce change instead of sharing information and justifying decisions with concrete evidence” (Quinn, 2004, p. 97). Nevertheless, both strategies have some shared drawbacks and limitations which include a lack of innovation and lack of staff participation (Quinn, 2004).

### **2.3.3. Normative re-educative strategy of change**

This strategy puts emphasis on staff participation and collaboration. Markee (1997) stated that change is based on teacher action research and they can become change agents within their organisations who implement changes and identify potential areas for

improvement in the process (as cited in Quinn, 2004). In contrast to the preceding two approaches, the normative re-educative strategy can provide long-lasting change and considerably higher adoption rates. This is because it is more humanistic, as it positions teachers as central to the change process. In addition, according to Kennedy (1987), teacher participation facilitates teacher professional development, and their interest in the change and further innovations (as cited in Quinn, 2004). However, this approach might be “time-consuming and difficult”, as it demands a higher level of expertise from teaching staff (Quinn, 2004, p. 99). Not all teachers can initiate action research studies that would articulate issues and further formulate suggestions and improvements to the process of change in their organisation.

Another well-known specialist in the field of education, Fullan has discussed the educational change in his numerous works. Fullan (2007) represented educational change as a multidimensional entity consisting of three components or dimensions which are (1) the possible use of new or revised materials; (2) the possible use of new teaching approaches; and (3) the possible alteration of beliefs (p. 30). Three aspects or components should work jointly toward the common objective of implementing a particular educational change. Any educational change, including curriculum innovation, introducing updated teaching and learning practices or any other reforms inevitably state and imply all those three dimensions (Fullan, 2007). The importance of applying three aspects of change is simply explained by the fact that any change and innovation as a set of materials and resources is noticeable because it can be employed with fewer efforts while changing teaching practices and beliefs take longer time but extend more profound influence and lead to essential changes (Fullan, 2007). McLaughlin and Mitra (2001) supported this conclusion by their research that studied how to implement “deep” changes. They

introduced the concept of a “theory-based change” and highlighted an obstacle to the implementation of innovations. McLaughlin and Mitra (2001) found the following:

The problem for implementation is not only one of teachers “learning how to do it,” but of teachers learning the theoretical percepts upon which participant structures and activity structures are based. Absent knowledge about why they are doing what they’re doing, implementation will be superficial only, and teachers will lack the understanding they will need to deepen their current practice or to sustain new practices in the face of changing contexts (p. 307).

Therefore, all three dimensions – materials and resources, teaching approaches and beliefs play a vital role when they complete one another toward achieving the common goal to implement a specific change. The challenge is to establish a relationship between those aspects, address emerging issues and make changes relevant in terms of personal use and efficiency (Fullan, 2007).

All of these strategies are in practice in various school contexts. However, the normative re-educative approach is preferable as it promotes involving teachers who play a vital role in the curriculum change. Other approaches might lead to surface change, but change should happen in teachers’ beliefs and attitudes first in order to sustain meaningful and useful changes in school contexts. Therefore, the next sub-section will explore teachers’ engagement and experiences in the process of curriculum reforms.

#### **2.4. Teachers’ engagement and experiences in the process of curriculum implementation**

Teachers are the primary stakeholders who implement and deliver changes both at the school and classroom levels. According to Ornstein and Huskins (2013), curriculum developments must happen with the direct involvement of teachers, because they enact innovations and alterations of the curriculum, attempt to modify or fully renew their beliefs

and practices in accordance with requirements that policymakers prescribe in the process of educational reform implementations. Likewise, Taba (1962) maintains that “changing the curriculum also involves changing individuals” (as cited in Obara & Sloan, 2009, p. 363). Priestley et al. (2012) confirm these ideas by the argument drawn from the data generated in the process of researching a secondary school in Scotland about the key role of teachers and their agency in viewing and efficiently enacting a change. Thus, policymakers should always put significant emphasis on the importance of teachers' role and engagement in the process of any policy implementation.

Furthermore, the teacher's role or engagement is characterized by teachers' overall experience of implementing any policy innovations in their contextual realities. Teachers' experiences imply the way teachers “translate and implement educational reforms” and extend “a considerable personal influence on implementation process” (Ben Peretz, 1984 as cited in Niemi, 1987, p. 310; Luk Fong & Brennan, 2010). These experiences emerge when teachers deliver revised curriculum materials and employ the updated teaching and learning approaches in their daily practices to fit the reform's pedagogical requirements. Thus, change planners must monitor how teachers respond to curriculum reforms and extend broad and continuous support while teachers adjust their instructions and practices to enact prescribed curriculum materials. Leander and Osborne (2008) support this statement indicating that policymakers must become aware of how teachers form their positionality and construct their voices to undermine in interventions while the reform agendas are implemented at their work sites. Therefore, policymakers need to ensure that teachers further gain useful experiences of the updated pedagogies.

Teachers' positive experiences of the curriculum reform in schools will ensure considerably more effective implementation of revised content and what is more important - a successful shift to the updated pedagogic principles and classroom practices. This shift

is related to Fullan's (2007) third dimension of change which means initiating a change in teachers' beliefs systems and views about the teaching practice. Alteration of an existing set of beliefs and internalising the new ones is a complex and sensitive process for teachers' professional identities (Ryder & Banner, 2013). This complexity can be explained by the fact that modern educational innovations and reforms in many countries have introduced the updated teaching practices that promote the ideas of learner-centred pedagogy and outcome-based education that imply using active and interactive methods of teaching, developing critical thinking skills, employing communicative approach, and facilitating students' collaborative and independent learning (Cedefop, 2010). Those ideas advocate a paradigm change which entails a constructivist theory of teaching and learning that focuses on facilitating students' active involvement in the process of implementing new concepts into existing knowledge (Faraday et al., 2011). In addition, Carney concurred (2008) that those reforms "aim to shift the focus in schooling from the transference of knowledge to students' active engagement in shaping learning opportunities in ways that can be called upon throughout their later life" (p. 42). Therefore, these innovations mean a completely different experience for teachers as they have to abandon their traditional teaching practices toward the new trajectories of teaching the renewed curriculum content that indeed challenges them in their contextual realities. To illustrate, Finland (Niemi, 1984), sub-Saharan African countries (Chisholm & Leyendecker, 2007), Tibet (Carney, 2008), Hong Kong (Luk Fong, 2010), Estonia (Kesküla et al., 2012) and many other countries including Kazakhstan implemented education reforms aimed to implement pupil-centred teaching and learning in different periods of 20th and 21st century. Those countries exposed teachers to change their traditional teacher-centered teaching patterns and exam-oriented educational philosophies toward innovative learning approaches (Carney, 2008; Luk Fong, 2010). Indeed, teachers in those countries, whether they resist or follow reform

initiatives, gained their unique experience of interpreting and implementing curriculum policies, as well as the specific way they put an outward policy and teaching practices in a dialogue.

For that reason, policymakers should extend ongoing assistance and improve the awareness about contextual realities where teachers are developing their experiences of policy implementation. These measures will serve as an efficient mean to reach Fullan's (2007) multidimensional entity of change – (1) instructional resources; (2) new teaching approaches; and (3) alteration of traditional and outdated beliefs about the practice which in combination will lead to an entirely successful implementation of any curriculum reforms (p. 30). The following example can show how it works in practice. If teachers continuously enact the updated curricular materials by implementing learner-centred pedagogy at their classrooms possessing adequate and timely support from change planners and gain a sustained positive experience of imposed reforms within sufficient time, then teachers will be able to fulfil a paradigm shift in their pedagogies and belief systems.

The next subsections will describe in detail the challenges teachers might face while they experience or engage with significant reform initiatives.

### **2.5. The challenges on the way to sustain teachers' positive experiences of curriculum innovations**

One of the most initial challenges is that teachers do not always receive sufficient attention and support from reform officers while they develop an understanding of what the new curriculum objectives mean for their practices at classrooms (Wedell & Grassick, 2018). Harris and Graham (2019) concurred with Mutch (2012) that sometimes change planners do not count on teachers and position them as an impediment for reforming without expressing any concern about their attitudes, beliefs and values. Policymakers

expect that teachers approach a new curriculum as just “curriculum transmitters” rather than “curriculum developers or curriculum makers” (Shawer et al., 2009) which implies that teachers enact curriculum without making any sense of innovations, although they should ascertain if teachers’ attitudes, beliefs and views on teaching are in line with the reform guidelines or not (Harris & Graham, 2019). Then, based on this knowledge, they should develop effective strategies to derive continuous support to minimize tensions and teacher reluctance. The example of this negative tendency is seen in secondary schools of Kenya and Philippines as they implemented radical top-down initiatives with mandated changes and strong accountability measures while curriculum officers and policymakers disregard teacher’s role and input (Okwara et al., 2009 as cited in Okoth, 2016; Ongong’a, Okwara & Nyangara, 2010; Waters & Vilches, 2008). However, only teachers with their proactive engagement with the policy can sustain a fidelity of reform initiatives and deliver innovations as policymakers initially intended. That is why ignoring the role of teachers’ attitudes and beliefs and positioning them as “neutral implementers” (Niemi, 1987) might be a severe challenge to implement any significant educational reforms.

In addition, in some cases, policy officers have limited awareness of contextual realities where teachers experience local difficulties while they accommodate reform requirements. Among these problems, Fullan (2007) and O’Donnell (2005) mentioned that there might be a substantial lack of resources and facilities, big-class sizes, school stakeholders’ averse position and insufficient knowledge of imposed curriculum changes. Also, Grassick and Wedell (2018) introduced the notion “technical failures of implementation” to describe this kind of contextual issues and also included “ineffective textbooks and limited teacher’s capacity” (p. 248).

Grassick and Wedell (2018) carefully discussed the issue of challenges within essential three interconnected themes as time, contextual confusion and risk. Proper

understanding of time is of great importance for policymakers who often underestimate how much time is needed while planning and implementing any reforms. Grassick and Wedell (2018) called it also as “temporal dissonance” that represents policymakers’ lack of understanding of time divided into three phases of time as historical time, time for planning and time for learning (p. 248).

Historical time entails becoming aware of dominant teaching and learning traditions, beliefs and views that are embedded in the context of curriculum introduction. However, policymakers underestimate difficulties that emerge while teachers move away from their personal core beliefs on education. As a result, reform officers do not devote sufficient time for effective planning of implementation procedures, taking into account teachers’ traditional education norms and assumptions that are different from outward changes. Further, this superficial approach to monitor teachers in the process lead to the lack of time for learning which is hardly given to teachers. Thus, in bureaucratic and hierarchical schools, teachers cannot afford some meaningful time to accept and accommodate changes and their messages into their teaching realities (Grassick & Wedell, 2018).

Contextual confusion is a particular challenge which has two visible forms emerging directly from teachers’ experiences of change initiatives. Aside from change planners and teachers, there are other stakeholders such as school principals, parents, community members and supervisors who have a severe impact on teachers’ experience. They can also face a lack of proper understanding of what curriculum innovations imply in terms of teaching and learning practices in contextual realities, as well as share with teachers embedded traditional views and beliefs regarding pedagogy. Thus, headteachers, parents and supervisors possess a limited capacity to support teachers and expect teachers’ usual behaviour and style while they enact an already Updated Curriculum. Also, teachers

experience stress and anxiety as they are obliged to maintain a balance between policy requirements and local community expectations (Grassick & Wedell, 2018).

The second visible form of contextual confusion is called as “systemic incoherence” (Grassick & Wedell, 2018) that imply implementation of some curriculum materials like textbooks, professional development courses and high-stakes examinations which to some extent contradict objectives and promoted pedagogies of the initiated reforms. As a result, teachers become overloaded trying to manage these systemic inconsistencies in an effective practical way within their local practices and cope with stress and anxiety. To illustrate, China and countries in Central Asia have an existing culture of judging school and teachers' effectiveness by the state's high-stake examination. In these contexts, it is difficult to abandon traditional pedagogies that work well to achieve annual highest results on exams and instead to employ updated teaching approaches due to the risk of being a low-performing professional. The same fear of failure is common for school leaders and local education departments as well. That is why teachers return to preceding practices is justified (Grassick & Wedell, 2018).

The preceding set of challenges are interrelated. The relationship between temporal dissonance and systemic incoherence is maintained in the sense of risk, which is the last theme to be discussed in detail. Renewed curriculum policies imply significant pedagogical changes, including enacting Updated Curriculum materials, applying new teaching approaches and changing the views about education which can potentially cause a threat to teachers' professional image. O'Donnell (2005) states that teachers “have too much to lose personally and professionally to embrace change” (p. 313). Teachers gain experience of uncertainty, stress and anxiety while they redress the emerging imbalance between policy requirements and their day-to-day practices. In addition, teachers become exposed to a “culture of compliance” (Yin et al., 2014) which implies a lack of trustworthy relationship

with those who fulfil support functions in reform implementation and have a higher hierarchal position in the system. As a result, teachers seem isolated as they do not have an opportunity to voice their concerns and release emotions on their experiences of changes (Grassick & Wedell, 2018).

Concluding this subsection, it is essential to note that difficulties always emerge in the process of any curriculum reform implementation. The challenges mentioned above are the most common, based on the experience of countries that have already undergone reform initiatives. However, those issues have a shared characteristic referenced to the importance of teachers' role, engagement and experience while curriculum innovations are in place. Lambert and Biddulph (2015) stated that "teachers do not just 'deliver' a pre-packaged curriculum, instead they are the ones who give life and meaning to the curriculum, which requires a complex understanding of students, the subject and pedagogy" (as cited in Harris & Graham, 2018, p. 44). Therefore, successful reform implementation will always need teachers' proactive engagement (Ha et al., 2004; Priestley, 2012).

## **2.6. Summary of the chapter**

This chapter has reviewed information from relevant scholarly sources about the curriculum and its definition, the nature of educational change and its types and strategies for implementing curriculum reforms at schools. The primary focus was given to the role of teachers, their engagement and experiences of pedagogical shifts in the process of curricular reform implementations. Also, the chapter had a careful look at potential challenges that can emerge while teachers enact curriculum. The next chapter will outline a methodology of the study.

### **Chapter Three: Methodology**

#### **3.1. Introduction**

This chapter provides a detailed explanation of the methodology employed in the current study. In order to gain an in-depth understanding of mainstream school teachers' experiences of the updated pedagogy within the scope of the current curriculum reform, it is relevant to gather data in this study based on a qualitative approach. This study presents the research design that was used to answer the central research question: How do teachers experience pedagogic shift associated with the Updated Curriculum? The chapter discusses the research design, sampling, data collection tools, procedures and analysis, as well as ethical considerations.

#### **3.2. Research Design**

It is important to offer a rationale for the selection of a particular research design. First of all, it is crucial to define ontological (the nature of reality) and epistemological (the nature of knowledge) assumptions that underpin a study (Creswell, 2013). The Updated Curriculum entails multiple realities that include policymakers, authorities, school stakeholders and society. The current study explores mainstream school teachers' reality where they experience the enactment of the imposed curriculum changes. Within epistemological assumptions, the study cognizes the knowledge based on exploring participants' subjective experience in their contextual realities (Creswell, 2013). In terms of a research paradigm, the study is based on phenomenology, which represents a theoretical view about the experience (Cohen et al., 2018). The noticeable feature of phenomenological viewpoints is that they highlight the significance of documenting and exploring person's experiences and consciousness related to the various meanings of the specific phenomenon (Cohen et al., 2018, Padilla-Diaz, 2015). According to Padilla-Diaz (2015), the most suitable data collection tool is in-depth interview. Therefore, the usage of

phenomenology helped participants to express their experiences of a particular phenomenon thoroughly (Padailla-Diaz, 2015).

My positionality as a researcher in this study is an insider. I am looking to participants as to myself because I work as a teacher at an NIS school and I disseminate experience related to the work within the scope of the Updated Curriculum as a member of NIS experimental platform. As a researcher, I am well aware of myself as an intentional agent, who conducts the research and describes the teachers' experience toward the implementation from an insider's position. Also, I as a teacher of NIS school, have experience of the Updated Curriculum dissemination. Thus, I was interested if my position and relationship to the curriculum is different than teachers from mainstream schools.

Before I discuss my research design and methodology, it is important to figure out a common definition of research design. Yin & Campbell (2018) stated "the design is the logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusions" (p. 60). Creswell (2009) further expanded the description of the research design: "research designs are plans and the procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis" (p. 3). Based on these statements, it can be concluded that research design represents a broad scheme of selected and appropriate research methods and data collection activities aimed at answering research questions.

In this study, a qualitative approach was employed to gather relevant data. Creswell (2014) stated that in qualitative research, a researcher aims to investigate a research problem in which he/she does not know the variables and is required to probe them. Also, it is necessary for a researcher to know more about the phenomenon of the study exploring participants because relevant literature might have insufficient information (Creswell, 2014). In addition, a qualitative approach is found the most relevant because as Dawson

(2009) stated: “qualitative research explores attitudes, behaviour and experiences through such methods as interviews or focus groups. It attempts to get an in-depth opinion from participants” (p. 14-15). Therefore, based on this research design, there was an opportunity for the research to obtain deep insights into teachers’ lived experience of the updated pedagogy and in-depth understanding of the curriculum changes in the process of implementing the Updated Curriculum in their contextual realities.

The study employed a collective case study design within the scope of a qualitative study. The reason of applying this technique is that case study helps a researcher to examine a real-life case or cases within the processes of painstaking data gathering including multifarious references of data as qualitative observations, interviews and documents, as well as provide the description of a case and its themes (Creswell, 2013). Also, Yin (2003) maintained “a case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (p. 13). There are specific characteristics of a case study that justifies its application in the present study. For example, a case study allows examining thoroughly standard settings and put particular emphasis on relationships, communicative interplays within specific context (Denscombe, 2014, as cited in Cohen, Manion, & Morrison, 2018).

Regarding case studies in education, Bassey (1999) clarified that educational case studies are empirical studies initiated to inform change planner, policymakers, theorists and school stakeholders. An educational case study explores “interesting aspects of an educational activity, or programme, or institution, or system; mainly in its natural context and within an ethic of respect for persons” (p. 58). Therefore, I decided to conduct a descriptive case study of two mainstream schools in urban and rural areas in order to thoroughly examine teachers’ experiences, attitudes and perceptions of considerable

pedagogical changes imposed by the most influential curriculum reform in Kazakhstani school education. My interest here is not in the schools themselves but using the two schools instrumentally to generate insights about the case, that is, teacher's experiences, attitudes and perceptions of pedagogical change in the context of the Updated Curriculum.

### **3.3. Site and Sampling**

In qualitative research, the researcher chooses participants and the site in ways that help illuminate the central phenomenon (Creswell, 2014). Therefore, qualitative studies rely on purposeful sampling. I selected eight teachers in the current study, four from a rural and four from an urban school. I wanted to find out if there are any differences in teachers' experiences of urban and rural school of the Updated pedagogy. I assumed that urban schoolteachers could be more advantaged in terms of effective reform implementation due to city school's infrastructure, which is considered to be more developed in comparison to rural schools. However, change planners have to provide equally sufficient support to all mainstream school. Both schools were located in the Kostanay region of Northern Kazakhstan.

There are numerous purposeful sampling strategies based on intent. In this study, a homogeneous sampling was used due to certain reasons. According to Creswell (2014), "in homogeneous sampling the researcher purposefully samples individuals or sites based on membership in a subgroup that has defining characteristics" (p. 208). Though, I invited teachers of both rural and urban school to participate in a study. I selected only those teachers who were teaching the grades that have already transitioned to the Updated Curriculum at primary, middle and high school. The main characteristics of participants varied based on the school a teacher worked (primary, secondary or high school), subject and experience of teaching generally and within the scope of the Updated Curriculum (see Table 2 for teachers' characteristics).

### 3.4. Data Collection Tools

A one-to-one semi-structured interview was used to gather data to answer the research question which centred on teachers' experiences of the updated pedagogy within the implementation of the Updated Curriculum. Interviews in qualitative research help to obtain an in-depth comprehension of participants' attitudes, perceptions, emotions, and perspectives on situations (Punch & Oancea, 2014). According to Hochschild (2009, as cited in Cohen et al., 2007), interviews are used "to explore issues in depth, to see how and why people frame their ideas in the ways that they do, how and why they make connections between ideas, values, events, opinions, behaviours, etc" (p.506). Moreover, an interview is commonly used in case studies because it is one of the essential sources of data (Yin & Campbell, 2018).

*Table 2. Characteristics of interview participants*

Teacher	Gender	Grade	Subject	Teaching experience within the Updated Curriculum	General teaching experience
<b>Natalya</b>	female	Grade 1-4	A primary school teacher	2,5 years	7 years
<b>Gulbanu</b>	female	Grade 7-11	Geography teacher	3 years	3 years
<b>Irina</b>	female	Grade 7-11	History teacher	3 years	17 years
<b>Valentina</b>	female	Grade 7-11	Biology teacher	2 years	5 years
<b>Nadezhda</b>	female	Grade 1-4	A primary school teacher	1 year	24 years
<b>Bibigul</b>	female	Grade 7-11	Chemistry/Biology teacher	3 years	10 years
<b>Yelena</b>	female	Grade 1-4	A primary school teacher	1 year	29 years
<b>Yerik</b>	male	Grade 7-11	An English language teacher	3 years	4 years
<b>Note: Teachers have been given to protect their identity</b>					

In this study, a one-to-one interview with open-ended questions was used to focus on respondents' experience of the updated pedagogy in accordance with the Updated Curriculum, as well as their attitudes and perceptions toward the implementation processes and the reform in general. For that reason, the interview protocol was prepared and included a range of information such as interview instructions, questions, and space for notes and responses (Creswell, 2014). During the interview preparation period, I spent a considerable amount of time to design accurate and meaningful questions (See Appendix C). I relied on Yin & Campbell's "*Five levels of questions*" and applied the first two levels while preparing an interview schedule. Thus, I attempted to meet the demands of the line of inquiry in a case study interview that corresponds to the "Level 2" questions. At the same time, it was necessary to formulate "Level 1" questions that imply maintaining a friendly and safe atmosphere while addressing appropriate questions (Yin & Campbell, 2018, p. 160).

### **3.5. Data Collection Procedures**

This research project was conducted in accordance with ethical principles. At the initial stage, it was mandatory to gain approval from the review board of Nazarbayev University and confirmation of access from potential gatekeepers (school administration), who were informed about the significance of the research and potential benefits for their schools.

As soon as I gained approval, I made phone calls to school principals. While I was speaking to them, I explained the purpose of the current study and arranged preliminary meetings at research sites to present consent forms (See Appendix A). When I visited an urban mainstream school, the school principal was a little bit suspicious and skeptical toward me. He wanted to see interview questions beforehand to check if they were appropriate for teachers. In turn, I invited the principal to participate in an interview to

share his experience as he also teaches grades in accordance with the Updated Curriculum. His answer surprised me as he said that he, as a school principal had no right to criticize state reforms. Thus, I presented consent forms and thoroughly clarified vital information regarding data collection procedures and the confidential nature of the study that guarantees the anonymity of all participants (See Appendix B). After having friendly conversation, the principal agreed to grant me access to teachers. Fortunately, I did not experience the same difficulties with the principal of a rural school. Both gatekeepers gave an opportunity to assess potential participants. Participants took part on a voluntary basis, and the interview time was arranged beforehand according to a mutually convenient time.

Participants were informed about the purposes and significance of the research and they signed a consent form before the interview. All of them were informed about the confidential nature of the research. The interview place and time were arranged after the selection and receiving consent forms from participants.

Before the data collection process, all interview questions were translated into the Russian language as the majority of teachers did not have sufficient language fluency to converse in English. Even one of the interviewees, an English language teacher, preferred questions in the Russian language. It was also one of the reasons for choosing a semi-structured interview as I addressed additional questions not only to further probe participants' responses but also to check teachers' understanding of translated questions (See Appendix C).

The interview sessions with urban school teachers were conducted on Saturday because they work in two shifts during the week and finish the work late. Rural school teachers were able to participate during a week-day. One-to-one interviews were held at teachers' classrooms when their students left and where they felt themselves comfortable. Before the interview, all participants were aware of their right to withdraw a consent and

discontinue participation at any time. At the beginning of the interview sessions, I always started with personal information about myself and background stories that preceded the choice of the research interest. I put an emphasis on a proper clarification of specific notions and concepts that would emerge in the interviewing process. Also, participants were informed about the opportunity to refuse to answer any questions they find embarrassing, inappropriate or difficult to answer, as well as address any clarifying questions in case of misunderstanding. I used a recording device to audiorecord the interview with the teacher's permission.

The interviews went very well. My interview participants demonstrated a high commitment to share their genuine and actual experiences of the renewed pedagogies. It is important to note that some teachers addressed me the question if they could speak honestly about their attitudes toward the reform implementation or something that I require them to tell when the tape recorder would be on. Therefore, I can draw the conclusion that teachers waited for an opportunity to express their narrative stories about the most radical reform they had ever experienced.

### **3.6. Data Analysis**

The data analysis stage is immensely important as it requires to understand how to use the text and images or any other data in a meaningful way in order to answer research questions (Creswell, 2014). It is essential to analyze the findings in a proper way, avoiding bias. The basic way of producing the text and data from an interview is audio recording and transcribing (Seidman, 2006). After interviews, researchers transcribe and produce transcripts. Nikander (2008) stated that "transcripts bring immediacy and transparency to the phenomena under study by allowing the audience access to inspect the data on which the analysis is based" (p. 225). Therefore, preparing a high-quality transcript significantly assisted in carrying out thorough data analysis.

The interview recordings were transcribed using the software called *Express Scribe*. This software has an integrated player, audio files manager and text-processor which allow to listen to a recording and type a transcript simultaneously. Transcribing was the most time-consuming and complicated activity I did within this study. According to Seidman (2006), it is important to decide where to punctuate the transcript as interviewees can speak long sentences building up the whole paragraph. Thus, I attentively listened to the audio tracks and tried not to miss any word or phrase while transcribing. Transcripts were labelled by codes given to each interviewee and translated into the English language by me. However, only two interviews were entirely translated into the English language because translation took a long time. Therefore, I decided to analyze the remaining transcripts without translation. Nevertheless, when I reported results in the *Findings* chapter, I translated all quotes I used into English. To analyze data, transcripts were coded for common themes, categories and patterns (Creswell, 2014). I used specific table with a distinct column for codes, the middle column was for quotes and the third one was for interpretation. After that, I carefully analyzed the table and figured out the similar codes to organize into particular categories and themes (See Appendix D).

### **3.7. Ethical considerations**

It was highly important to ensure that the study followed research ethics. The school administration of both urban and rural schools had a personal meeting where I highlighted the importance of the present research project for the educational field. Before the interview, participants received a consent form indicating the confidential nature of the study. Interview participation was on a voluntary basis, and pseudonyms were used to indicate participants. In addition, respondents had a right not to answer any questions they think inconvenient. Interviews were conducted at a convenient time for participants.

During the process of data analysis, interview transcriptions were stored in a password-protected computer and only I had access. The recorded interviews will be kept for three years and deleted solely after this period of time.

### **3.8. Summary of the chapter**

The chapter presented a research approach, design and methods employed in the current study. I applied a collective qualitative case study to explore teachers' actual experiences of the updated pedagogy within the scope of the curriculum reform.

## **Chapter Four: Findings**

### **4.1. Introduction**

This chapter presents the findings of my research study that explored mainstream school teachers' experiences of the updated pedagogy within the process of curriculum reform implementation. One-to-one semi-structured interviews with eight teachers from two mainstream schools, one urban and one rural school, in Kostanay region were employed to gain an in-depth understanding of teachers' experiences and generate relevant data. All participants have different teaching experience and represent different subjects within school levels. The interviews were transcribed using 'Express Scribe' software and analyzed by hand. After careful analysis and interpretations, all the findings are organized into specific themes: (1) teachers overall experiences of the Updated pedagogy within the scope of the curriculum reform implementation; (2) factors supporting a shift to the updated pedagogy and curriculum; (3) challenges in completely shifting to the updated pedagogy and curriculum.

### **4.2. Teachers' overall experiences of the Updated pedagogy**

As outlined in the previous chapters, the updated subject programmes, new assessment practice and learner-centred teaching approaches altogether constitute the Updated pedagogy and curriculum. The Updated Curriculum is the most crucial curriculum reform in Kazakhstani school education, which has had a massive impact on teachers' professional practice. It has become an essential milestone for policymakers, teachers, students and other stakeholders. Therefore, this study was initiated to have a close look at teachers' experiences, attitudes and perceptions of the Updated pedagogy and reform implementation in general. Research interviews allowed teachers to discuss their experiences of all the named aspects of the Updated Curriculum while the reform is being implemented in their school contexts. Thus, the following themes were articulated to

discuss (1) teacher' experiences of updated subject content; (2) experiences of the updated assessment system; (3) experiences of changes in teaching and learning approaches, mainly of a shift to learner-centred approaches.

All respondents were teachers who have from one to three year experience of working within Updated Curriculum. Since the launch of a reform initiative, teachers have developed their own unique experience of attitudes and perceptions toward the Updated pedagogy and curriculum. Most of the participants (6 teachers out of 8) have mostly positive attitudes toward the Updated Curriculum. Although, they still have difficulties and challenges while they put the Updated pedagogy in practice in their daily working contexts. All of them realize clearly the specific reasons that led to the initiation of the reform in school education. These drivers of the curriculum reform, as understood by the teachers, included improving the quality of education, developing a generation of highly educated and critical thinkers, and joining the community of developed countries with robust school education systems. Gulbanu (geography/urban) said:

The path of innovation. I think that this is my subjective opinion that the state decided to reach a new level. To achieve a new level and simply learn from the experience of the West and developed European countries. Maybe something like that.

Kazakhstan, as an independent state, strives to enter the number of top highly developed countries. It has made considerable efforts to advance school education and improve the quality of education using the introduction of curriculum reform that was developed jointly with strategic partner, Cambridge University. Also, Valentina (biology/urban) commented:

According to various sources, our country is adopting experience from Western countries. The government or the Ministry of education decided that it was necessary to keep up to date [with modern trends in education].

Another teacher was able to put forward an explanation with some particular details, which means that this teacher is well aware of the current situation in the country. Bibigul (chemistry-biology/rural) acknowledged:

I think that Kazakhstan took a loan for education from foreign investors. What was the point? This loan was in cash, material equivalent. As a result of which, it was necessary for Kazakhstan as a developing country to observe one of its requirements - education, in order to enter the top developed countries.

Thus, in order to fulfil those aims, Kazakhstan needed to revise the outdated curriculum, improve the quality of education and provide students with comprehensive knowledge which is applied in real life. Regarding this matter, Irina (history/urban) commented:

As conceived by the President, we do not comply with the world standard. That Soviet education does not correspond, is no longer necessary because the knowledge that was transferred to the student is not relevant, or it is forgotten at the end of school.

The same was recognized in the responses of other rural teachers who highlighted one of the central goals of the Updated Curriculum to develop independent learners with critical thinking and research skills, with formed functional literacy and ability to learn throughout life. For example, Yelena (primary school/rural) asserts:

Kazakhstan should be among the top 50 countries with developed education. According to PISA and TIMMS results, Kazakhstani students gained low results. The State searched for the reason for a long time and found that our children are used to getting ready-made knowledge, telling, reproducing, but on international exams, there are tasks based on logic, research activities, and critical thinking. Therefore, Kazakhstan decided to learn from the experience of the world educational space.

The same way Nadezhda (primary school/rural) stated:

Therefore, the old system is already outdated. In this system, we gave more academic knowledge that was rarely applied in life. I am saying that a high school gold medalist. I had been taught a lot, but I have applied very little in my life.

According to the participants' responses above, it can be deduced that teachers fully realize situation upon the educational context that preceded and led to the reform implementation, as well as the primary aims of the curriculum updating as highlighted in the curriculum documents or in the discourse of policy makers.

The content of the Updated subject programmes has changed significantly. Among respondents, teachers of primary school shared mostly positive attitudes toward the changes in the content. The updated content of primary school programme suggest well-

designed textbooks with workbooks and supplementary materials that are full of various tasks aimed to develop students' critical thinking and imagination. There are a lot more illustrations than before in order to strengthen students understanding and suggested ideas for teachers. Language subjects are taught to develop harmoniously learner's language skills which were uncommon during the old curriculum. The updated content and textbooks employ the structure of delivering lesson material that was revised by teachers on the Updated Curriculum training and seminars. Also, there are certain strategies and approaches that enriched respondents teaching methodology. For example, Nadezhda (primary school/rural) observed: "Now there is an active starter. Students guess riddles and smoothly come to a lesson topic and objectives. There is feedback for students [teachers provide feedback]. When we were in the first grade, there was only blackboard and chalk." Based on this quote, it is seen that teachers have gained a lot from the updated content and teaching approaches.

However, these respondents also state particular limitations of the Updated programme of the primary school. The Updated Curriculum has removed some effective practices of the traditional curriculum that had beneficial effects on students' learning. For instance, students of the Grade 1 do not have an ABC book/primer anymore. These students learn letters and how to read, but at the same time, they are expected to read and solve problems in math and natural science. Thus, there is a discrepancy between the textbooks of the same grade. For example, Nadezhda (primary school/rural) stated:

In Grade 1, the textbook system is weak. We learnt letters, but in math and natural sciences, we should already read [texts and solve problems]. I do not like that the primer disappeared. On each lesson, it was a celebration of learning letters for children. Now lexical topics are ahead which means students talk [more], but I believe that we have to teach them first how to read, write, count, give them basic knowledge and then develop creativity, imagination, speech.

The respondents who work in middle and high school are less favourable toward the updated subject programmes. Those respondents are mostly science teachers. Some

respondents have informed that the distribution of hours on a particular subject for each grade has changed. Chemistry subject is introduced earlier in the Grade 7 than it was within the old curriculum in Grade 8. However, the old curriculum distributed 2 hours of Chemistry in Grade 8, which is moved to Grade 7 in the Updated Curriculum. Further, in the 9th grade, the number of hours has been reduced to one hour a week. Overall, excluding 4 lessons a term for summative assessment, there are five lessons a term to cover the subject programme, which is insufficient due to the complexity of the content. Besides, according to respondents, the content is not presented as systematically as it was within the traditional curriculum growing gradually from simple to complex. To illustrate, Bibigul (chemistry-biology/rural) stated:

Initially [during the old curriculum], biology introduced botany in the 6th grade, zoology in the 7th grade, anatomy in the 8th grade, cytology in the 9th and let's say 10th and 11th grade. It was by degrees from the simple to the complex. It was a system. It was all clear and planned. All this knowledge was built up gradually. The program and composition of the textbook were developed methodically and correctly. The transition from one book to another, that is, from one grade to another, became more complex and systematic. This is not the case now. Although, they [the Updated Curriculum] show the principle of a spiral curriculum, which means that a topic which was studied in grade 7 is repeated in grade 8 in-depth. But I want to tell you that all the material is very complicated, the text of writing a particular topic is difficult to perceive.

As a result, their academic achievement decreased because students are not fully able to acquire the updated learning material.

The reduction of hours is not only one challenge that teachers encounter in their practice. The lack of sufficient facilities, resources and equipment is another challenge in mainstream schools, especially in rural areas. Teaching the updated content requires considerable efforts and long daily preparations that make it difficult for teachers to have a proper work-life balance. In addition, teachers need a stable Internet connection, interactive whiteboards and computers to organize the learning process, as well as printers to produce everyday classroom handouts and summative assessment worksheets. Teachers

even experience a substantial need for stationery and paper. All these issues have become integral to the teachers' experiences of the Updated Curriculum implementation. Yelena (primary school/rural) described this situation in detail:

We have an Art lesson. We do some crafts and project activities. I buy large paper, Whatman paper and bring everything to school. I buy everything for my money. We can't ask for money from parents. I consume a lot of paper to print SAU and SAT tasks. Previously, we had one copybook for tests throughout the academic year. Now, we need one A4 paper, toner, and computer to prepare an assignment for each student. I have two printers at home. I bought a colour printer on purpose because I knew that I would teach Grade 3 based on the Updated Curriculum. I purchased a printer by instalments. I need coloured assignments for the SAU on "Knowledge of the world", because there are illustrations. Tomorrow I have SAU on Russian language. I have to print out 14 works. A teacher spends his own money for that.

Having acquainted with teachers' responses, it can be concluded that teachers have gained rich experience of the Updated Curriculum implementation. However, they share their concerns that those adverse amendments might still remain in the subject programmes.

#### **4.3. Teachers' experiences of the updated assessment practice**

Another significant novelty of the Updated Curriculum is criteria-based assessment. The updated assessment practice evaluates learners' performance by applying pre-defined measurable criteria. This system was introduced to replace the outdated 5-scale grading model that was considered less objective. In line with teachers' responses, none of the teachers have a completely positive experience of applying assessment in their classrooms. One teacher (Bibigul) among eight participants is immensely reluctant to employ the new model to assess students' achievements and has a predominantly pessimistic attitude toward it. Bibigul (chemistry-biology/rural) stated:

I want to tell you that they [the Updated Curriculum] give us criteria which are biased. A lot of parameters, but there is no specific essence. Before that, the assessment was precise; you knew what is 5. If you solved a problem or 20-question test and made some mistakes, you knew exactly whether you got a five, four, three or two on each lesson. There are many assessment criteria, but they do not give an accurate assessment, which would make it more accessible for teachers to assess the

situation rather than now. I can't say that these descriptors, criteria have better replaced the [old/5-scale] assessment system. There is no clarity.

Other respondents reported that there are both positive and negative sides of the new assessment, but they are tolerant of it. Further, it is necessary to discuss positive and negative teachers' experiences of the Updated assessment in sequence.

Criteria-based assessment model develops students' independence and responsibility for own learning. Well-designed criteria and descriptors can show learners what they are to do, what they have to achieve and how they can get the mark. Formative assessment has become a good way to assess students' performance with the most minimal stress.

According to interview responses teachers claim that they know how to provide an adequate feedback and support both in oral and written form. They have become more attentive and supportive toward less able students. In addition, the respondents diversify their lesson with self and peer-assessment, with smiles, badges and appreciative words in order to encourage learners for independent learning and compliance with academic honesty. Irina (history/urban) asserts: "Yes, I adapt tasks. I change, combine, format them a bit. Formative assessment in the form of tasks helps me a lot". Another respondent (Gulbanu) stated:

Well, there is no grading for a teacher. This is a little bit easier. The teacher bears a great responsibility for the mark that is given, because students can challenge it. And with the introduction of SAU and SAT, the student sees how he has written, what he [sic] has completed, what he [sic] has not. Basically, this is a benefit. A student has tasks, descriptors, assessment criteria, and understands accordingly. He [sic] realizes what they [descriptors] want from him [sic]. And he [sic] understands if he [sic] does not write the essence of which is required from him [sic], then he [sic] will not earn points and that's it.

On the other hand, there are substantial limitations of the updated assessment, which makes teachers and students miss the old grading practice. For example, aside from formative assessment that teachers conduct daily to improve students' performance, there are summative assessment for the unit (SAU) and summative assessment for the term

(SAT). Students undertake SAU at the end of the unit and SAT at the end of the term.

Mostly, students pass SAU two times a term, as two units are taught during that period of time. Teachers and administration announce the week of summative assessment beforehand. During that week, students encounter SAU on various subjects. It happens that students may have four-five SAU a day due to subject arrangement in the timetable. At the end of a term, the load is increased because students pass SAT additionally to SAU. Therefore, students always experience increased load and maximum stress during the assessment weeks because the mark of summative assessment both for the unit and term is unchangeable. Teachers are also exposed to the same circumstances, as they spend much of their time to develop summative tasks, print them out, conduct, check and transfer grades to the electronic register. According to Irina (history/urban):

The topics and SAU in all subjects correspond. After studying for a month, the children at the end of September write SAU in many subjects. As a result, a student has 6 SAU (summative assessment for the unit) per day. The similar situation happens at the end of the term, although they [Updated Curriculum] say that there should be at least three SAT (summative assessment for the term) at the end of the term. Deputy Director distributes these lessons, but student writes SAU and SAT in parallel. As a result, instead of three SAT, students have again 7-8 lessons [of SAU and SAT in one day] when they show the maximum performance.

Another important limitation is about the decrease of students' motivation to learn and complete daily home tasks. It has been more than three years since the updated assessment model was launched. Students are aware of how the assessment works and realize that there is no more traditional daily grading that included marks for classroom performance and fulfilment of homework. Traditional grading practice was a good extrinsic motivation for students who did not want to study properly. Such marks as "two" and "three" encourages students to prepare appropriately for next lessons, as they were afraid of the case when negative marks outweighed positive (five and four). Teachers share the importance of developing intrinsic motivation among students, which is promoted in the Updated Curriculum. However, even best students who are eager to study and complete

each homework assignment, need sometimes extrinsic motivation in the form of grading appraisal. As a result, they become discouraged because some students can ignore homework and be less active on the lessons, but achieve sometimes the same results on SAU and SAT. In addition, those students with extrinsic motivation have developed an understanding that they need to be prepared only for summative assessment that produces the final mark. They do not recognize the purpose of formative assessment on lessons that supports students while acquiring knowledge and achieving learning objectives needed to cover the content and pass summative assessment successfully. There are several quotes that describe such teachers' experience. For example, Irina (history/urban) stated:

SAU and SAT are good. But, you know, there should be stimulus on every lesson, because formative assessment does not work in this regard. There should be stimulus like somebody's grading. A student always wants to hear what others think about him, this is the essence of a person's psychology.

Also, Valentina (biology/urban) asserted:

Here, the motivation of students is low. Previously, because of grades, they tried [to study properly]. But not now. Not all. If earlier we could punish them with grade "two" and point them out their ignorance, now I do not know how to motivate them to obtain knowledge.

The next important limitations are parent's insufficient awareness of the guidelines of the assessment model and increased workload of teachers who develop SAU and SAT. Parents still miss traditional grading, because that was the way they were assessed when they were students. They neither fully understand the system of the updated grading, nor the essence of the Updated Curriculum. Teachers attempted to deliver appropriate information about the model. However, it requires more time to change the parents mind about the current situation. As a result, parents lost control over their children's grades and subject achievement at the beginning which led to the dramatic decrease of academic achievement rates. Nadezhda (primary school/rural) commented:

Our parents didn't change [their minds] because earlier when we came home, parents ask us: What did you get today? Children tell: I have 5 fives I have 2 fours.

Nowadays [parents ask]: What did you get? [Children reply:] I have a star [appraisal symbol] there, and the teacher told me that I'm a good boy [sic] [formative assessment]. It means that it is not bright spot that was in grading. Parents themselves are lost and they are becoming indifferent. There is misunderstanding [among parents]. The misunderstanding turns into indifference.

Also, Irina (history/urban) stated:

My nephew studies at Lyceum. Good school, elite school. He studied well. After the Updated Curriculum launched, he gained satisfactory marks [grade 'three' on some subjects]. When he came home and showed his diary there were no [daily] grades, but by the end of the term his grade for algebra was "Three". Parents wondered about how it happened. He has smiles in the diary, no problems, but at the end he has a satisfactory mark. His mother says: If he had "three" in the diary [as it was within the traditional assessment], we would scold the child, sit and learn everything together to change this negative mark on the next lesson. Now there is no such system. It discourages children. There is no motivation to go to school for grades.

Overall, the updated assessment practice is completely new experience for teachers within the Updated Curriculum. Traditional grading was pre-dominant since the beginning of the school education in Kazakhstan. Many generations of teachers and students have been graded based on a 5-scale marks. Therefore, it is immensely challenging to experience a completely new way of assessment. Teachers have acquired some knowledge from training and practice at workplaces, but there are still certain limitations that need to be addressed by policymakers in the near future.

#### **4.4. Teachers' experiences of the Updated pedagogy**

Another essential change happened in the representation of teaching and learning approaches. The Updated content of the subject programmes and assessment practice are formal influential aspects of the Updated pedagogy. However, the updated views on teachers' teaching approaches and significant change in teacher's role have given a completely new perspective about teaching. It can take teachers to a new level and enrich their experience if implemented properly. However, abrupt introduction of the Updated Curriculum and teacher's affection to traditional teaching are worth a detailed observation in real-life school contexts.

According to interview responses, all teachers have developed a precise understanding of teachers' expected roles in the Updated content. They agreed that teachers claimed a central attention in the old curriculum as they explained and taught ready-made knowledge without facilitating students' critical thinking and independent learning. Now they realize that learner-centred teaching approaches help to guide and encourage students to obtain knowledge for themselves rather than traditional teacher-centred teaching strategies. Their expected aim is to apply active learning methods and construct appropriate learning environment that will lead to independent and high-quality knowledge acquisition. For example, Yerik (English/rural) asserts:

I understand this [learner-centered pedagogy] in such a way that the main role in the lesson is played by the students, their knowledge, their skills and performance. Now, according to the Updated Curriculum, students should talk mainly in the lesson, 70% [of time], 70% by 30%, 30% teacher [talk time], and 70% students [talk time]. It is good because students begin to analyze, think, and search something. It disciplines them and leads to analysis and the search of information. And in general, I believe that students should come to this [independent learning].

Gulbanu (geography/urban) shared: "According to UC, a teacher creates conditions for a student. He [sic] gives tasks, assessment criteria, helps, prompts, guides, but he [sic] does not teach. He [sic] does not teach. He [sic] directs." She applies various active learning tasks to facilitate students' independent learning. For example, she assigns different reading passages with specific tasks. Students read different paragraphs in groups, complete tasks and analyze information. It is surprising as Gulbanu (geography/urban) claims that all of these were in use before. It is just interpreted differently nowadays.

However, there are teachers who support and still rely on traditional teaching approaches due to various sound reasons even if they stay positive toward the Updated curriculum. According to the responses, one of the reasons is that complex topics of science subjects can only be taught by teacher-centred approach, when a teacher himself has to take a leading role. Those teachers claim that students are not able to obtain

theoretical knowledge and learn topics with different complex scientific concepts and patterns for themselves. For example, Gulbanu (geography/urban) shared:

Basically, this is not bad [learner-centered approaches], because the teacher should speak less on the lesson, and so that children work more. I think this is a positive thing. But this does not apply to my subject. I want to tell you. Here you need to specifically consider the subject. If I were a humanitarian [taught humanities] like you. You teach them a certain topic. Students must speak English with you. They can talk during the whole lesson. It's good. This is appropriate for linguist [language teachers]. But sometimes in my lessons when I have to explain where does valency come from, how is it determined. How can I not talk? To present new material and explain new topics, of course, I must speak. And who will explain this topic to them? They themselves? I give them easy topics, for example, metals and alloys, Kazakhstan deposits, oil and gas, I let them study [these topics] on their own. But [the topics as] alkanes, alkadienes, alkynes, I can't divide them [students] into groups so that they explain it to me [organize independent learning]. They will not understand [those topics], because they must know the General formula, they must describe the structure, where everything comes from, how names are given, what they interact with. They can't do that. So, I have to explain the whole lesson to them.

Also, they refer to students from mainstream and rural schools who are not able to achieve the same level of comprehension as gifted and selected students in elite schools.

Some teachers shared common view that elite school students are much stronger intellectually and have better learning abilities. On the contrary, mainstream schools accommodate the needs of all students who live in the closest areas no matter what their academic levels are, including students with special needs. For example, Natalya (primary school/urban) shared: "We have all children. There are children with mental retardation in the classrooms". Teachers assert that it is difficult to teach based on the Updated pedagogy because there are many students with different learning abilities in one classroom. In addition, due to the reduced number of hours for science subjects in a term and limitations of the updated textbooks, teachers hardly cover the complex topics and have almost no time even to consolidate the acquired knowledge. Therefore, in these forced circumstances when education departments and school administrations are in pursuit of high academic achievement rates and Unified National Testing (UNT) results, teachers have no way as to

return back to traditional teaching approaches which had already proved its effectiveness a long time ago. Bibigul (chemistry-biology/rural) asserted:

There will be no quality of [academic achievement] at all. If the students will study on their own [if teachers apply learner-centred approaches]. Maybe at the Intellectual schools, students learn topics [for themselves], but our students are different, schools are different, conditions are different, and mental abilities are different. Someone can understand the topic, and someone can't. Here you need to start from a subject [take a subject into account]. Science subject and Humanities subjects are different. Students' abilities are also different.

Teachers have mentioned elite schools because the Updated Curriculum was first introduced and approved at Intellectual schools. Those schools have appropriate facilities and resources, as well as talented students and small class-sizes that fully allows to apply learner-centered teaching approaches and active teaching methods to cover the Updated content. Unfortunately, unequal position of elite and mainstream schools both in urban and rural areas is another challenge to shift completely to the Updated pedagogy. Teachers experience a substantial lack of stable Internet connection, multimedia tools, facilities, resources and stationery that prevent them from enriching their daily practice with different active methods of teaching and putting into practice the Updated pedagogy. Groupwork, independent learning and other methods require paper to print lesson material, handouts, as well as interactive whiteboards to present visual information and computers to organize project works. As a result, teachers had only to rely on textbooks because there are no other means of presenting and delivering the updated content. To illustrate, Yelena (primary school/rural) shared:

I am not a greedy person in this regard. I buy toner if I run out. There are no such conditions in school [lack of facilities to fully switch to Updated pedagogy]. If you want Internet in the classroom. I download some interesting movies to a flash drive at home and bring them to school. Sometimes I might forget the flash drive or it might not work, then I can't show the video to children. That's the problem for me.

Natalya (primary school/urban) also shared: “My colleague worked at school number XX. Children had access to the Internet, they could play online games. But we do not have this [facilities]”. Irina (history/urban) described immensely illustrative case from her practice:

No, it all lies on the shoulders of a teacher himself [sic] [teaching the Updated content and finding facilities for that]. If there is a class, then the parent community can help. Buying paper, printer. I don't have a printer at home. This is a big problem for me. When I was given a class, I asked my parents: - Whoever has an old printer, I don't have the opportunity [to buy it]. They bought me a new printer and said: - We will give you a printer, but if you leave us [will not teach the grade anymore] the printer remains with our class. I said: no problem. I said that it was their printer and I needed it to work. They provided it to me, but that was parents again. That was not the State. I need paints, felt-tip pens, markers, pencils to make up mind maps and interactive maps. Again, I buy it at my own at my own expense. Magnets, boards, print material, everything I buy from my expense. Well, if it is the Updated Curriculum, then help. Where is the help then? Yes, they [Ministry of Education, policymakers] increase the salary, but I completely work out this salary. I spend time planning a lesson, I conduct this lesson, I directly monitor the knowledge of students. I work it [salary] out fully. Where is the government's assistance in conducting a high-quality lesson?

From the above-mentioned findings, we can conclude that teachers experience a serious issue that discourage them to employ updated teaching approaches and strategies. Policymakers and education departments monitor the reform implementation and require increased academic achievement rates but do not fully provide schools and teachers with appropriate facilities and resources. These inconsistencies have negative influences not on teachers' attitude to implement updated teaching approaches, which they find useful, but on teachers' outlook to a profession on general.

Another key challenge that certainly summarizes above-mentioned ones and causes difficulties in teachers' shift to learner-centered teaching is overall teachers' well-being. Updated Curriculum has become an extensive change in their life. It is even more powerful than the collapse of Soviet Union in terms of their practices which will never be the same again. Abrupt introduction of the reform, serious amendments in the updated subject programmes which is not always positive, lack of sufficient support and facilities and increased workload are certain factors that might definitely impede a desired change in

teacher's outdated pedagogies toward the Updated pedagogy. Therefore, the Updated could certainly become a formal reform that delivers solely the content without any importance for teachers' well-being, mindfulness and job satisfaction. To support this, there are several teachers' responses. For example, Bibigul (chemistry-biology/rural) shares:

I want to leave the school. Is it okay? I also have Updated Curriculum [teaches the Updated Curriculum]. I also think not. I used to be highly motivated to work. I think not all [teachers shifted to learner-centred pedagogy]. About 50 per cent. Because it is not possible to shift completely. A teacher is a teacher. I sometimes think that there will be no teachers [in the future], there will be only robots. The way a teacher teaches can only be taught by a teacher. No one can replace it. Not a single machine. In order to shift completely, then teachers need to be replaced with robots. Then, we will definitely shift [to learner-centred pedagogy].

Overall, teachers mostly find the Updated Curriculum useful reform in school education. They have gained some experience of shifting to learner-centered teaching approaches and the Updated pedagogy in general. A little time has passed since the launch of the reform. Irina (history/urban): "These three years were hard labor for me. It took long time to get used to it [Updated Curriculum]. The process of adaptation continued for three years. Now, having already completed courses on Updated Curriculum, having worked within this system, I already understand its essence." Therefore, we cannot expect teachers change their practice so quickly, but those changes are just started to happen.

#### **4.5. Factors that influence the positive shift to the updated pedagogy and curriculum**

Since the Updated Curriculum started its own route of implementation in mainstream school context, policymakers and education departments have introduced useful practices that to some extent help teachers in the process of enacting the curriculum reform. Thus, this sub-section will discuss those positive factors.

##### **Teachers' professional development**

The Ministry of Education set the task to Center of Excellence of Nazarbayev Intellectual Schools and National Training Center 'Orleu' organize the training according

to the very first Multilevel Programme for teachers of Kazakhstan. That was an initial step of preparing teaching staff to the upcoming curriculum reform. This programme was developed by the Center of Excellence of NIS in collaboration with Cambridge Assessment International Education. The content of Multilevel programme aimed to present the updated teaching and learning approaches, critical thinking, the updated assessment practice, usage of ICT in learning, teaching to gifted and talented students and management and leadership in education. According to the findings, all respondents have undertaken the Multilevel Programmes. Some of them have successfully completed the first level of the programme, which is called "Leadership in Education" designed for school administrators and exceptional teaching staff who employ Action Research design to research their practice. Teachers mentioned that they were able to learn a lot on these courses about the updated teaching approaches and become prepared to teach the Updated Curriculum. The design of the course included face-to-face learning at the site, meaning practice and knowledge application at the school context and thorough feedback in the form of reflective reports. This initial professional development course helped teachers immensely to start revising their teaching and learning paradigms.

After the reform was launched in 2016, respondents attended further courses, training and seminars on the Updated Curriculum, subject programmes and new assessment model. Those events have established some kind of theoretical and practical foundation for teachers that help them to get involved in the process of reform implementation with minimal stress. Yerik (English/rural) thinks highly of the professional development courses he has attended. He is genuinely positive toward the Updated Curriculum, and thanks to it, he has enriched himself as a teacher. This teacher worked one academic year in accordance with the traditional curriculum, then, he moved to the Updated Curriculum and received

continuous course support that has made a vast improvement on his professional skills.

Yerik (English/rural) commented:

I worked within the old education curriculum for the first year. I worked, and I got used to it a bit. In my first year, I had 27 hours, classroom management, and I was busy. It was hard for me to teach 27 hours [a week]. I was a green [young] kid who came from the university. I didn't have the methodology for the first year. Maybe, I faked something in my lessons. Perhaps my [teaching] methodology was weak. I agree that maybe there was not enough role-play [not enough active teaching methods]. But when the Updated Curriculum started, we began to be taken out to seminars on the Updated programmes, Proficiency courses on TKT CLILs [Teaching Knowledge Test, Content Language Integrated Learning]. It [training and workshops] stimulates. It helps. It has improved my methodology. And [it seems like] my body has become stronger.

According to this response, it is seen that young teachers might have better acquired the Updated pedagogy due to young age and absence of emotional ties to the former curriculum. All teachers had an opportunity to make a considerable contribution to their professional skills on these Updated Curriculum training.

Attendance at professional development courses and seminars was rare during the traditional curriculum. Therefore, teachers enjoyed it very much because they were able to obtain valuable knowledge, sharpen teaching skills and establish useful professional connections with colleagues from other schools. Professional collaboration with other teachers has been a great benefit as teachers overcome emerging difficulties jointly sharing lesson plans, materials and practices. However, aside from the named constructive effects, there exist limitations. For example, incomplete engagement of teachers in all necessary training and accelerated course completion. These issues will further be discussed in the upcoming sub-section.

### **Intellectual schools' assistance**

Some respondents have encountered an opportunity to learn from the experience of NIS teachers. They have attended seminars and courses on teaching the Updated Curriculum and applying active methods of teaching in practice. Those teachers appreciate

substantial support and assistance of NIS teachers who carefully explained all the practical details of delivering the Updated content. Also, respondents had an opportunity to get involved in lesson observations where they could see how NIS teachers implement the Updated Curriculum in an authentic learning context. To illustrate, Elena (primary school/rural) commented: “We studied [attended PD courses] at NIS school. I liked to study [to have PD at NIS]. It is a wonderful school [the school is better funded] I completed the courses successfully. I defended my presentation well. I understood [the Updated Curriculum]”.

Also, teachers use the ‘system-methodical complex’ (SMK) which serves as a repository of all learning materials of NIS teachers including lesson plans, presentations, multimedia resources, methodical recommendations, handbooks, SAU/SAT tasks. This resource helped teachers immensely when the Updated Curriculum started at their schools. Especially, it has made a considerable improvement to the application of criteria-based assessment. For example, Irina (history/urban) asserts: “It is useful [to use SMK] because I see how to make up a task. I see what they [NIS teachers] approximately mean when they set this objective [for the lesson]. After having looked at their tasks, I am ready to develop my tasks [formative tasks]”. As we can see, the teacher frequently uses the materials as samples to develop their formative tasks and learning materials for students. That contributes to teachers’ experiences of the Updated Curriculum.

#### **4.6. Factors that prevent teachers from a complete shift to the Updated pedagogy and curriculum**

The following sub-section will discuss the factors that prevent from a shift to the Updated pedagogy and curriculum such as (i) remaining limitations of subject programmes and textbooks; (ii) lack of sufficient facilities and resources; (iii) diverse classes with a

large number of students; (iv) increased workload, pressure on teachers and influence of the traditional curriculum.

### **Remaining limitations of subject programmes and textbooks**

The Updated Curriculum has introduced revised subject programmes and reduced the number of academic hours for some of the science subjects. Unfortunately, the programmes contain complex topics which are difficult to acquire due to students' age characteristics and factor that influence learning acquisition. In short, students face challenges acquiring complex topics at that young age, because they started learning the subject earlier than it was before within the old curriculum. Teachers have approximately about five lessons a term to explain the topics, excluding lessons for summative assessment. Thus, they are not able to apply fully learner-centred approaches. For example, they could not reach the top advanced levels of Bloom's Taxonomy as analysis and synthesis, because they do not have sufficient lessons. Moreover, textbooks are published by different publishing houses and do not always fully reflect the content of the subject programme. The textbooks of one publishing house might not continue in the next grade. Also, some schools do not have workbooks for the textbook because they were not purchased by the local education department. There are a couple of responses from teachers that describe this matter. Valentina (biology/urban) stated:

If we taught earlier structured starting from the plants, then animals, then human [during the old curriculum]. Then it was logical and understandable. Now we are jumping, we have a section of respiration in plants, in animals, in humans, and [only] one hour is given. It's really very difficult to learn the topic within one lesson in 40 minutes. I think such topics are unrealistic (to learn in one lesson).

Also, Elena (primary school/rural) shared: "No time. There is no time for analysis and evaluation. We go through the first three stages of knowledge-comprehension-application, there is synthesis a bit, but there is no time for analysis and evaluation because we need to learn topic and write SAU quickly".

**Lack of sufficient facilities and resources**

Teachers at mainstream schools both in urban and rural areas experience a substantial lack of facilities and resources. The classroom is not fully connected to the Internet and not provided with interactive whiteboards and computers. For example, ICT subject has recently been introduced at primary school. However, there are no computers to teach the content of the ICT subject programme. In addition, teachers are not supplied with a printer, paper and other stationery. They buy all these resources from their own money. For example, Yerik (English/rural) asserted: "I personally bought and installed the printer in the classroom. I buy toner, paper for myself. That is the difficulty. There are unnecessary financial expenses. Our school does not allocate money for that. Therefore, that is a difficulty."

**Diverse classes with a large number of students**

The number of students at mainstream school has increased. There are commonly 28-30 students in the classroom, which is a real challenge for teachers within a 40-minute lesson. Language subjects, Physical Education and ICT divide student into two groups, but science subjects are taught for the whole classes. However, those subjects also require division into groups because topics are complex to explain for the whole class. In addition, there might be students with disabilities and students with a specific social background.

They require substantial differentiated support from a teacher who has only 40 minutes.

Natalya (primary school/urban) shared:

If the class has 30 students. I had 32 students. Each student needs an individual approach. There's no way [to differentiate and apply active teaching methods] even if I teach each student for a minute, the whole lesson will be consumed. We have all students [have students of different abilities]. We have students with mental retardation [as well]. They also write SAU and SAT assignments.

**Increased workload, pressure on teachers and influences of the traditional curriculum**

As the Updated Curriculum has been introduced in mainstream schools, teachers devote most of their time to lesson planning. Additionally, teachers search for learning material, adapt, edit, design worksheet, formulate descriptors for formative tasks and print them. Therefore, teachers are very overloaded and have to work till night, although policymakers promised to reduce paperwork. Bibigul (chemistry-biology/rural) stated:

Teachers' workload has doubled or even trebled. Huge workload. Do you know how much time it takes to prepare SAU (Summative assessment for the Unit) and SAT (Summative assessment for the Term) for the lesson? Also, they require impossible things. The teacher is three times overloaded. Because a teacher needs to develop everything, print it out, distribute it, and still find what to distribute to them.

In addition, local education departments organize frequent inspections to check the results of reform implementation. It has a negative impact on teachers' emotional state and well-being, as well as discouraging them to work within the Updated Curriculum. For example, Bibigul (chemistry-biology/rural) commented:

First, they should not come with inspection but provide methodological assistance. Methodological assistance to a teacher. These are not only beautiful seminars, but there should be [substantial] support, training and so on. Local Executive bodies [local education departments], in turn, should create a Bank of ideas and a reserve for teachers, so that teachers can develop [supplementary methodological materials] and make the work of teachers easier based on the example of a [particular] school.

All these named factors together make teachers feel a sense of nostalgia for the traditional curriculum, even if they recognize the importance of a curriculum reform. According to them, the old curriculum had well-designed subject programme, sufficient academic hours and high-quality textbooks. Gulbanu (geography/urban) commented on this matter:

Negative sides, yes, they outweigh. Of course, because there are more teachers with the old teaching methodology than with the new one. And many, and you yourself have probably seen the interviews and a lot go on the Internet, and in various social networks, all these indignations of teachers and, accordingly, these indignations are growing. They might be closed, but these disturbances are growing throughout the network.

To sum up, policymakers have to take into account all these factors that prevent teachers from a shift to the Updated pedagogy. Thus, they expect that issues will rapidly be addressed in the near future.

#### **4.7. Summary of the chapter**

This chapter has analyzed and presented the findings of the qualitative data about the mainstream school teachers' experiences of the updated pedagogy within the scope of the curriculum reform. Particularly, it has had a close look at teachers' experiences of the updated subjects programmes and textbooks, new assessment practice and changes in teaching approaches. Also, the chapter has considered various factors that influence a shift to the Updated pedagogy and factors that prevent.

Having analyzed the findings, it is seen that teachers mostly developed a positive attitude toward the Updated Curriculum and its novelties. However, participating teachers mentioned substantial drawbacks of the implementation process and the Updated Curriculum itself, which have negative impacts on teachers' overall experience of the Updated pedagogy and their well-being. For example, negative amendments in the subject programmes, complexity of the learning material and subject hour reduction cause difficulties while delivering the Updated content to students. Formative and summative assessment have eased to some extent, the teacher's work. However, there are still challenges both for teacher and students due to the time-consuming development of tasks and congestion during summative weeks. Teachers are eager to employ learner-centred teaching approaches and active teaching methods. For that reason, they have enriched their methodological and didactic repertoire on various courses and become well-prepared. However, teaching the updated content has become a challenging task due to insufficient subject hours to consolidate knowledge, lack of appropriate facilities and diverse classes with a large number of students. In addition, increased workload and frequent stress at

workplaces because of pressure from local education departments prevent teachers to have a proper work-life balance. All respondents of the study seek additional methodological support from local education departments in the form of practically oriented seminars and workshops. All these things together negatively affect teachers' well-being, experiences of the Updated pedagogy and will eventually lead to disappointment and potential teacher attrition.

The presented findings will further be discussed with reviewed literature in the next section.

## **Chapter Five: Discussion**

### **5.1. Introduction**

The preceding chapter presented the analysis and findings of the data generated through interviews with teachers. The current chapter aims to give a broad interpretation of the results drawn from the study with reference to research questions and the reviewed literature.

### **5.2. The implementation of the Updated Curriculum**

Kazakhstani secondary school education is undergoing an educational change, mainly curriculum change in order to meet the demands of contemporary society which is a standard process throughout the globe as it is stated in the reviewed literature (Kelly, 2009). Nowadays, the society needs a well-educated generation with sound knowledge and developed skills including critical thinking, research, communication and collaboration, as well as with the ability to learn throughout life. The Updated Curriculum highlights these crucial aspects while reforming secondary school education by introducing renewed subject content, updated assessment practice and new teaching and learning approaches to enact the curriculum. Teachers who participated in the current study had arrived at a proper understanding of these particular objectives and changes to the Kazakhstani curriculum. The reviewed literature related to Kazakhstani education context openly criticized the former school curriculum which had a strong influence of Soviet education that was considered as rigid and knowledge-based without any idea of practical implication of the learnt material (Fimyar, 2014; OECD, 2014; Yakavets, 2014). However, some teacher voices differ from the reviewed literature (Fimyar, 2014; OECD, 2014; Yakavets, 2014,) to some extent, stating that during the Soviet times teachers applied differentiated tasks, possessed well-designed and logically consistent subject programmes and textbooks, as well as in some cases attempted to implicate learner-centred teaching practices.

The Updated Curriculum represents four significant changes at school education as (1) changes in subject content; (2) updated assessment practice; (3) applying updated teaching approaches and strategies; (4) fulfilling a shift from teacher-centred to learner-centred teaching approaches. These named changes were also indicated in responses of teachers who participated in the study. The following aspects correspond with Fullan's (2007) multidimensional entity consisting of three components or dimensions which are (1) new or revised materials; (2) new teaching approaches; and (3) the possible alteration of beliefs (p. 30). The Updated Curriculum has introduced the revised content of the subject programmes, new assessment practice and updated teaching approaches at school contexts, which are related to the components of Fullan's multidimensional entity. However, respondents shared their experiences of the updated pedagogy within the current reform initiative which mentioned numerous positive benefits and specific limitations of the Updated Curriculum implementation that the chapter will further discuss in relation to reviewed literature.

### **5.3. Teachers' experiences of the curriculum reform and updated pedagogy**

Teachers' responses reflect various reactions to implemented innovations as mentioned above at secondary schools, as well as their experiences of working based on updated pedagogical practices to produce a marked shift in teachers' beliefs, views and attitudes on education. All participants had acquired professional development courses on the Updated Curriculum before they started teaching it at the classroom. Some of them had undergone more courses on various aspects of the Updated Curriculum rather than others. For example, teachers of Primary school had attended more courses than science teachers at Middle and High school. Also, young specialists, who came to schools when the reform launched, did not attend the "Multilevel Programme" that was the initial training course conducted about five years before the Updated Curriculum. This aspect raises a question to

policymakers regarding equitable opportunities of professional development courses to become well aware of all upcoming innovations and understand fully the “language of curriculum” (Giroux, 1994, p. 35). On this matter, it is essential to note that above-mentioned limitations are similar to what Grassick & Wedell (2018) described as “temporal dissonance” with three dimensions as “historical time, time for planning and time for learning” (p. 248-249). The participants' views can be related to the second dimension - time for planning because reform officers of the Updated Curriculum could have spent insufficient time for planning of one of the major facilitating aspects of any reform implementation, professional training aimed at developing teachers' prior knowledge on forthcoming curriculum changes. Possibly, it could happen due to the reform's “rushed approach” and unrealistic time frames.

Discussing training issues, a teacher of Chemistry mentioned that she had undergone English language courses in order to teach Chemistry in English at High school which was promoted as a part of the Trilingual policy of the Updated Curriculum. However, another challenge called “systemic incoherence” (Grassick & Wedell, 2018, p. 261) emerged because teaching STEM subjects in English did not happen within initially identified time frames due to the rushed approach and policymakers' limited awareness of teachers' contextual realities. Change planners overestimated teacher's English language learning capacity and the level of their English language acquisition in mainstream schools both in urban and rural areas. Also, policy officers did not take into account insufficient instructional hours of English language at schools that resulted in students' immensely low level of English language, especially in rural schools. Therefore, ineffective planning, lack of awareness of school realities led to teachers and students being not ready for learning science subjects in English.

#### **5.4. Teachers' experience of the updated pedagogy**

Having received uneven pre-service and in-service ongoing professional training, teachers tend to put into practice the Updated Curriculum as much as it is possible in their school and gain unique experiences. Their involvement can be characterized mostly as “reactive change” (Newton & Tarrant, 1992), as teachers implement changes following the directives from policymakers and authorities. Shaver et al. (2009) call it as “curriculum transmitters” or “technicians” (Harris & Graham, 2018) which implies that teachers enact the prescribed curriculum and organize work to achieve predetermined goals. This teacher’s position can be characterized by the strategy for change being applied by policymakers in the current circumstances. The Updated Curriculum is implemented by empirical-rational strategy (Quinn, 2004) which means that respondents have become “passive recipients” (Quinn, 2004, p. 97), as they do not hold the knowledge and control over implemented changes at their schools, although policymakers provide schools and teachers with methodological and research support. For instance, they employ organizations as NIS Center of Excellence, Orleu and NIS schools in regions to conduct training, seminars, masterclasses, conferences and joint lesson study and action research studies to share valuable information and justify the need of reforming with concrete evidence (Quinn, 2004). However, teachers in mainstream schools do not have an opportunity to take the role of curriculum makers or developers (Shaver et al., 2009) due to the top-down approach of implementing curriculum and the above mentioned empirical-rational strategy presented by Quinn (2004). Possibly, as Harris & Graham (2019) and Mutch (2012) agreed that policymakers do not count on teachers and position them as an impediment. As a result, data from the interview demonstrated the interrelationship of these concepts of change as reactive change (Newton & Tarrant, 1992) that has happened due to empirical-rational strategy of change (Quinn, 2004) applied in the process of curriculum implementation which further led to reaching the first two dimension of change

– introduction of the new curriculum material and applying updated teaching practices (Fullan, 2007).

The teachers' responses reflected that the Updated Curriculum reform at schools had reached successfully two dimensions of change. Teachers use an Updated Curriculum and subject programmes, apply new teaching approaches and attempt to shift their beliefs and practices toward the Updated Curriculum. However, teachers' experiences of the updated pedagogy that advocate pre-dominant use of learner-centred teaching approaches vary due to both positive and negative attitudes of teachers toward the Updated Curriculum and contextual constraints. These attitudes and perceptions have developed because of specific challenges as amendments and limitations of subject programmes, lack of subject hours for science subjects at high school, insufficient facilities, resources and equipment, increased workload and improper work-life balance that emerged in the process of the Updated Curriculum implementation. Fullan (2007) and O'Donnell (2005) mentioned these hurdles in their works that Grassick and Wedell (2018) characterized them as "technical failures of implementation." Thus, it is evident that their teaching practices and beliefs have not changed entirely due to limitations mentioned earlier, and the reform has not accomplished all three dimensions of change. According to Fullan (2007) and McLaughlin & Mitra (2001), if the three dimensions are not appropriately reached, then it will not be possible to implement "deep" changes and the innovations will be superficial only.

Both experienced and less experienced teachers have positive and negative experiences of working within the Updated Curriculum. However, teachers of an elementary school both at urban and rural area have developed a moderately positive attitude toward the Updated pedagogy. They think profoundly about the usage of learner-centered teaching approaches, and most of the time, they apply updated teaching practices to deliver the renewed curriculum. It is important to note that teachers stated that they have

a proper understanding of learner-centered approaches that relied on constructivist theory of learning. Young learners acquire the subject knowledge and learning materials adequately, as well as they demonstrate high eagerness to study collaboratively, prepare projects and be engaged in active teaching procedures. Teacher participants at primary school demonstrate high commitment to implement the innovations of the Updated Curriculum and shift the practices toward learner-centered teaching and learning approaches. At the same time, they express their concern that they have not changed their beliefs completely due to the lack of facilities and resources, increased workload and big class sizes. Newton & Tarrant (1992) asserts that these kinds of limitations cause stresses that teachers experience daily; therefore, "it becomes difficult to allocate time to consideration of the change process" for teachers who start their working day deciding whether to "reach or proact" and "devote most or all resources to surviving the day, or to planning to create better days" (p. 7). These circumstances happened because curriculum officers do not address emerging limitations in a timely manner.

Regarding teachers of middle and high school, their attitude and experience toward the updated teaching practices tend to be largely negative. This is especially true of teachers of science subjects. Those teachers have strong emotional ties to traditional teaching methodologies of science subjects. It happened due to the influence of Soviet legacy that developed a powerful culture and image of teaching science subjects with a specific focus on "scientific" knowledge (Fimyar & Kurakbayev, 2015). Moreover, according to Yakavets (2013), Olympiad competitions in Mathematics and science subjects played a pivotal role in defining the school's and teacher's effectiveness during Soviet and Post-Soviet times. Thus, teachers always strived to achieve success in Olympiad competitions to prove their professional effectiveness (Fimyar & Kurakbayev, 2015; Yakavets, 2013). Teachers took the role model of teaching science subjects relying on

knowledge-based curriculum that advocate teacher-centered approaches as lecturing, repetitive problem-solving, rather than on constructivist pedagogies (Fimyar & Kurakbayev, 2015). Therefore, respondents who teach science subjects experience a “gap” (Grassick and Wedell, 2018) between deeply imbedded traditional conceptions of education and those required by innovative pedagogies. Policymakers of the Updated Curriculum seem to have underestimated and overlooked the Grassick & Wedell’s “issue of historical time” that entails complex and long-term adjustment of pedagogical innovations to teachers’ existing practices (p. 252).

In addition, there are concerns related to the updated subject programmes which have changed considerably. Policymakers introduced alterations in the content of a subject, reduced the number of subject hours a week and introduced science subjects earlier than it was before within the old curriculum. Also, the updated textbooks represented by various publishing houses do not correspond properly to the subject programmes. At the same time, teachers of middle and high school in urban and rural schools experience the same “technical failures of implementation” (Grassick & Weddel, 2018) as they do not have well-equipped classrooms and sufficient resources to unpack the Updated Curriculum and employ learner-centered teaching approaches on an appropriate level to teach big-class sizes with diverse students.

Another issue is related to a sense of risk (Grassick & Wedell, 2018). Teachers’ risk-taking emerges from systemic incoherence of the Updated Curriculum. This issue means that policymakers imposed on teachers the application of new teaching approaches enacting renewed content material but still administer a high-stakes examination called Unified National Testing (UNT) which hardly corresponds to the updated pedagogies. The State started conducting the UNT during the old curriculum times. The stakes are high because the results of the testing are vital for students’ university enrolment which is also

one of the criteria to assess the school's and teacher's effectiveness. Harris & Graham (2018) also stated that exam results are an accountability measure that might be used to encourage teachers to implement changes. However, in Kazakhstani educational reality, teachers experience a dilemma (Coburn & Russel, 2008) of implementing prescribed changes and being forced to serve the examination using traditional approaches (Yan, 2017) in order to avoid the risk of being ineffective professionals. Therefore, these apparent limitations cause the continuation of traditional teaching practices and moves teachers away from changing their beliefs and views (Grassick & Wedell, 2018).

### **5.5. Summary of the chapter**

Based on the experience of those respondents, it is evident that teachers have gained mixed experiences of implementing the Updated Curriculum, although they ultimately realized the scale of the current reform and put maximum efforts to implement the Updated Curriculum properly regardless of the limitations. Also, teachers' responses show their high commitment to proact (Newton & Tarrant, 1992) with changes by contributing to curriculum development. However, in the context of rushed implementation, teachers have to cope with stress and anxiety due to temporal dissonance, contextual confusion and daily risk-taking (Grassick & Wedell, 2018), as well as a lack of opportunity to address their concerns to change planners and claiming adequate support from local education authorities.

## **Chapter Six: Conclusion**

### **6.1. Introduction**

The following chapter concludes my study on teachers' experiences of the Updated pedagogy within the scope of Curriculum reform called the Updated Curriculum in two mainstream schools, one each in an urban and a rural school in Kostanay region, Kazakhstan. The current study aimed to investigate teachers' experiences of enacting the renewed curriculum content, applying innovative teaching approaches and strategies and altering their beliefs and practices in line with the Updated pedagogy promoted by the most radical reform in the history of Kazakhstani school education. The chapter answers my research questions and discusses the implications of the study findings. In addition, the limitations of my study and ideas for further research are offered.

### **6.2. Revisiting research questions**

**How do teachers understand their expected role and that of their students within the revised pedagogy?**

Interview responses demonstrate that teachers both at urban and rural school have developed sufficient awareness about the reform and its proposed changes to curriculum and pedagogy. They clearly understand the specific goals of the initiative and make constant efforts to unpack the imposed curriculum in their contextual realities regardless of emerging limitations. Teachers are well aware of the revised pedagogy which is based on constructivist theory, and they fully realize that the reform is needed to educate intellectual generation with sound knowledge, developed critical thinking skills and functional literacy, as well as with the ability to learn throughout life. Therefore, teachers have a comprehension of what they have to implement in their classrooms.

**What do teachers say they do in order to shift their pedagogy according to the Updated Curriculum?**

As it is said earlier, teachers have acquired sufficient knowledge and skill to deliver the renewed curriculum, practice the new assessment system, apply student-centered teaching approaches. Teachers tend to renew their pedagogies and enrich day-to-day practices with active teaching methods that are advocated by the Updated Curriculum, including differentiation and scaffolding techniques, Bloom's taxonomy, organizing group work and collaborative learning processes in order to facilitate students' independent learning. Teachers develop SAU and SAT tasks termly, which is considered to be stressful and time-consuming but improves teachers' professional capacity.

**What constraints do teachers experience in shifting their pedagogy, and how could they be supported in the shift from a teacher- to a learner-centered pedagogy?**

Teachers experience a variety of constraints in shifting their pedagogies. First and foremost, teachers from primary, middle and high school mentioned that the Updated Curriculum excluded some of the effective practices of the old curriculum. A primer or ABC book is no longer used to teach students how to read, although this book was a useful and essential tool for the initial development of reading skills. Moreover, there is a discrepancy between textbooks of particular subjects. For example, elementary students start learning how to read and write letters. However, at the same time, they are already expected to read and solve mathematical problems within the same unit and term.

Nevertheless, teachers are pleased with the majority of textbooks and workbooks containing well-designed tasks and activities. However, sometimes the local education departments do not provide them with workbooks and other supplementary materials included in the set of subject textbooks. A similar tendency is seen at middle and high school. The content of updated science textbooks is not designed as systematically as it was in the old textbooks. Also, varying publishers produce textbooks for school, but not all the books correspond fully the renewed science subject programmes. Therefore, teachers

from all school levels spend additional time to find relevant materials from the Internet, which will complete their lesson plans and improve compliance with subject programmes.

A lack of technical facilities, resources, stationery and low Internet connection is another important constraint to pursue a learner-centred pedagogy and experience a needed shift in day-to-day practices. Schools do not have sufficient computers, interactive whiteboards and stable Internet connection. As a result, teachers spend their own money to buy colour printers, A4 paper and stationery to produce lesson materials, handouts, formative and summative worksheets which will help teachers at centering students in the learning process.

Shortcomings, as mentioned above, discourage teachers from shifting to the Updated pedagogy. In some cases, they continue applying traditional teaching practices to explain complex topics for students or prepare them for Olympiads or the UNT as they do not have an opportunity to do it based on a learner-centered pedagogy. Teachers strive to do their best in implementing required curriculum changes, although they experience substantial stress and anxiety because of the preceding constraints, as well as pressure from policymakers and education authorities.

### **How do teachers see the impact of their revised pedagogy on themselves and their students?**

First and foremost, teachers have become more knowledgeable in terms of their professional knowledge and capacity because they have gained an opportunity to attend various courses and training. All participants were able to learn innovative means of teaching and learning and apply the revised pedagogy in their practice when the reform launched. The revised pedagogy impacted positively on the way they plan lessons, activities and organize learning environment in the classrooms. Teachers are pleased to see their students are becoming critical thinkers and independent learners. Teachers said

students know how to find appropriate information, how to process and analyze it, how to read and interpret messages in the texts, how to question concepts and knowledge bases in a subject. However, there are some difficulties that teachers and students experience due to the revised pedagogy. For example, teachers require considerably more time to prepare lessons and cope with emerging difficulties that lead to increased workload and unsustainable work-life balance. Students, in turn, might struggle with the updated assessment system as once they are assessed, then their mark remains unchangeable.

Majority of respondents show commitment to implement the Updated Curriculum and revise their pedagogies. However, they would like to voice their current concerns and wish to be heard while they are enacting the prescribed curriculum.

Answering the above questions was helpful in answering my central research question:

**How do teachers experience pedagogic shift associated with the Updated Curriculum?**

Discussion on revisiting research questions and the results of the study as a whole provide an ample opportunity to answer the central research question. Teachers make intense efforts to implement the revised curriculum and new assessment practice, apply progressive teaching approaches to organize learning processes with an emphasis on centering to students and modify their pedagogies, beliefs and views. Most of them are genuinely enthusiastic about changes being embedded in their practice. At the same time, some of them are discouraged with emerging issues which are not adequately and timely addressed by policymakers. As a result, there are less and fewer prerequisites of successful shift entailing a crucial change in teachers' views within announced time frames. It will undoubtedly require a longer time due to strong emotional ties to traditional curriculum and pedagogy in case if the reform efforts remain the same.

### 6.3. Research implications

The current study carefully examined teachers' experiences of the updated pedagogy within the Updated Curriculum, which is considered to be the most radical reform after gaining Independence. Based on the outcomes of the study, there are several implications and recommendations for change planners:

- To devote sufficient time for reconsideration of the current reform efforts with a greater focus on the teacher's role. Policymakers should lay special emphasis on teacher's well-being and derive sensitive support in order to maintain teachers' positive experience while the reform is being implemented.

- To provide teachers with ongoing professional training covering all the aspects of curriculum renewal, including training on how to teach updated subject programmes, apply a new assessment system and learner-centered teaching approaches. Policymakers should monitor if any teacher at schools has successfully completed training.

- Reconsider the content of the updated subject programmes on science subjects. Policy authorities should check if a model curriculum that distributes a number of academic hours a term allows covering the content of a subject programme entirely within one term.

- To change the existing perspective on teachers from "curriculum transmitters" to "curriculum developers". These measures will facilitate the development of teacher agency that is an effective way to impact reform implementation processes positively. For example, countries like Finland and Estonia were able to implement curricular reforms with constant participation of teachers and developing their agency in school contexts.

- To review the content of updated textbooks, especially for science subjects. Policymakers should provide a complete set of textbooks to schools and check their adherence to the Updated Curriculum programmes.

- Policy officers should improve the awareness of the parental community about educational changes at schools. It is important because parents have strong traditional

views on education due to their individual experiences. That is why they misunderstand the current initiatives, which negatively affects their children.

- Local education departments and school authorities should enrich their practical understanding of all peculiarities of the Updated Curriculum. They should shift focus from expecting instant high academic achievement within a short time period towards deriving meaningful and competent support for teachers. It will undoubtedly affect the implementation processes positively and reduce teachers' stress.

- To reform the UNT format that makes teachers return to traditional teaching practices as they do not want to take the risk of getting low results and be punished for it.

- To implement group division for science subjects. Science subjects are taught in a big-size classes with approximately 30—35 students. Teachers are not able to cover all student within one 40-minute lesson.

- To supply schools with sufficient technical facilities, resources, equipment and stationery. All classrooms of mainstream school both in an urban and rural area need to be equipped with interactive whiteboards, computers, printers and connected to a high-speed Internet connection. Lessons and worksheets developed based on the updated teaching approaches require a considerable amount of A4 papers, flipcharts, coloured pens and markers. All the named facilities and resources must be provided by change planners. These expensed should not be borne by teachers.

These implications and recommendations will be helpful for policymakers to reflect on the current implementation processes at mainstream schools and rationalize them further.

#### **6.4. Research limitations**

The current study has some limitations. First and foremost, the research was conducted solely in two mainstream schools of the Kostanay region. Thus, the findings do not reflect the overall picture of teachers' perspective on the Updated Curriculum and its

implementation throughout Kazakhstan. Indeed, it is recommended to initiate extensive research studies with a greater research site and sampling.

Second, the study did not involve any other stakeholders except teachers. Students, parental community, local education departments and school authorities also play an essential role to determine the effectiveness of the curriculum reform implementation. Possibly, further research incentives will probe more about those stakeholders' experience and involvement in the Updated Curriculum.

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## Appendices

### Appendix A

#### Informed Consent Form

##### **An exploration of teacher's use of differentiation to support gifted students who underachieve**

Dear Principal,

My name is Amir Azhmukhambetov and I am a Graduate student at Nazarbayev University Graduate School of Education in Nur-Sultan. As part of my Master Programme, I am conducting a study on exploration of teachers' experiences of the updated pedagogy within the scope of the Curriculum reform.

I would like to invite your school to participate in a research study and I kindly request you to allow me to conduct my study in your school. I assure that the aim of the study is not to evaluate the work of the school or teachers' professionalism. The aim of this study is to explore teachers' experiences of the updated pedagogy within the scope of the Curriculum reform among Kazakhstani mainstream schools.

**Description.** In this research, I will apply qualitative case study approach to investigate the topic, therefore teachers of your school will be asked to participate in an interview.

The interview will last approximately no more than 60 minutes and will be audio taped at teachers' personal permission. No video or pictures will be taken to avoid identification of participants' personality and the pseudonyms will be used to keep their identity protected.

The convenient dates, time and venue to conduct interviews will be discussed with teachers as soon as I obtain your and teachers' consent to participate in the study. The data collected from interview will be used only for research purposes and will be kept confidential. Once the data is analysed, all electronic and paper data will be discarded.

**Risks.** The potential risks of participating in this study are: biases from the participants or the researcher and a potential conflict between the researcher and the participants, regarding data collection. In this cases I will approach teachers in the neutral non-critical way to avoid being biased, and will follow all the procedures included in information sheet. Moreover, I will discuss the findings after lesson observations for clarification and validation.

**Benefits.** This project has several potential benefits to the participants. First, it is an excellent opportunity for teachers to provide feedback on their experiences toward updated pedagogy and the reform implementation in mainstream school contexts. Secondly, possible outcomes of the research might demonstrate how teachers accomplish the shift to learner-centered pedagogy, which is strongly promoted within the current curriculum initiative. Therefore, school stakeholders can become better aware of their teaching practice impacted by curriculum reform, as well as policymakers and school leaders will better support teachers in mainstreams schools in the implementation of pedagogic reforms.

**Confidentiality & Privacy.** Any information that is obtained during this study will be kept confidential to the full extent possible. Information or any data collected will be applied only in the research purposes. The data will be studied by NUGSE Research Supervisors. The

obtained data will be secured on the personal laptop of the researcher under password protection. Upon the finish of the research, the data will be discarded. In case of publication, the names will be deleted, unless participants want to share their name.

**Voluntary Nature of the Study.** Participation in this study is strictly voluntary, and if agreement to participation is given, it can be withdrawn at any time without prejudice.

**Points of Contact.** If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, contact the Principal Investigator, Amir Azhmukhambetov, +77472295799, [amir.azhmukhambetov@nu.edu.kz](mailto:amir.azhmukhambetov@nu.edu.kz) should be contacted. Any other questions or concerns may be addressed to the Nazarbayev University Institutional Research Ethics Committee, [resethics@nu.edu.kz](mailto:resethics@nu.edu.kz).

### Statement of Consent.

I, \_\_\_\_\_,

Give my voluntary consent to conduct this study in the school.

The researchers clearly explained to me the background information and objectives of the study and what employees' participation in this study involves.

I understand that the information collected during this study will be treated confidentially.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Researcher: \_\_\_\_\_

Signed \_\_\_\_\_ Date \_\_\_\_\_

### Форма Информационного Согласия

Опыта учителей работающих в рамках обновленного содержания образования

Уважаемый Директор школы,

Меня зовут Амир Ажмухамбетов, и я являюсь магистрантом Высшей школы образования Назарбаев Университета в городе Нур-Султан. В рамках моей магистерской программы я провожу исследование по изучению опыта учителей работающих в рамках обновленного содержания образования

Я хотел бы пригласить Вашу школу принять участие в научном исследовании, и я прошу Вас разрешить мне провести мое исследование в Вашей школе. Уверяю, что целью исследования не является оценка работы школы или профессионализма учителей. Целью данного исследования является изучение опыта учителей работающих в рамках обновленного содержания образования.

**Описание.** В данном исследовании я буду применять метод кейс-стади для исследования своей темы, поэтому учителям Вашей школы будет предложено принять участие в интервью.

Интервью продлится не более 60 минут и будет записано на диктофон с личного разрешения преподавателя. Исследователь не будет снимать видео и фотографии, чтобы избежать идентификации личности участников. Кроме того псевдонимы будут использоваться для защиты личности учителей.

Удобные для участников даты, время и место проведения интервью будут обсуждаться с преподавателями, как только я получу Ваше и учителей согласие на участие в исследовании. Данные, собранные в ходе интервью, будут использоваться только в исследовательских целях и будут храниться в тайне. После анализа данных все электронные и бумажные данные будут уничтожены.

**Риски.** Потенциальными рисками участия в данном исследовании являются: предвзятость со стороны участников или исследователя и потенциальный конфликт между исследователем и участниками в отношении сбора данных. В этом случае я буду вести себя нейтрально и не критически, чтобы избежать предвзятости, и буду следовать всем процедурам, включенным в информационный лист.

**Преимущества.** Результаты исследования могут помочь как исследователям, так и специалистам в области образования лучше понять опыт учителей общеобразовательных школ работающих в рамках обновленного содержания образования.

**Конфиденциальность.** Любая информация, полученная в ходе этого исследования, будет сохранена в полной мере в конфиденциальности. Информация или любые собранные данные будут применяться только в исследовательских целях. Данные будут изучены научными руководителями Высшей Школы Образования Назарбаев Университета. Полученные данные будут храниться на персональном ноутбуке исследователя под защитой пароля. По окончании исследования данные будут уничтожены. В случае публикации имена будут удалены, если только участники не захотят поделиться своим именем.

**Добровольный характер исследования.** Участие в этом исследовании является строго добровольным, и если согласие на участие дано, оно может быть отозвано в любое время без ущерба.

**Контактная информация.** Если у вас есть какие-либо вопросы, проблемы или жалобы по поводу этого исследования, его процедур, рисков и преимуществ, свяжитесь с исследователем Амиром Ажмухамбетовым, +77472295799, [amir.azhmukhambetov@nu.edu.kz](mailto:amir.azhmukhambetov@nu.edu.kz). Любые другие вопросы или проблемы могут быть адресованы в Комитет по этике институциональных исследований Назарбаев Университета, [resethics@nu.edu.kz](mailto:resethics@nu.edu.kz).

**Заявление о согласии,**

Я, \_\_\_\_\_,

Даю свое добровольное согласие на проведение этого исследования в школе. Исследователи четко объяснили мне исходную информацию и цели исследования, а также процедуру участия сотрудников в этом исследовании.

Я понимаю, что информация, собранная в ходе этого исследования, будет рассматриваться конфиденциально.

Подпись: \_\_\_\_\_ Дата: \_\_\_\_\_

Исследователь: \_\_\_\_\_

Подпись \_\_\_\_\_ Дата \_\_\_\_\_

### Ақпараттандырылған Келесім Формасы

#### Жаңартылған білім беру бағдарламасы аясында жұмыс жасайтын мұғалімдердің тәжірибесін зерттеу

Құрметті мектеп директоры,

Менің атым Амир Ажмухамбетов, және мен магистрант Назарбаев Университеті Жоғары мектебінің Нұр-Сұлтан қаласында болып табыламын. Менің магистрлік бағдарлама аясында мен жаңартылған білім беру бағдарламасы аясында жұмыс жасайтын мұғалімдердің тәжірибесін зерттеймін.

Мен сіздің мектебіңізді ғылыми зерттеуге қатысуға шақырғым келеді, және Мен сізден сіздердің мектептеріңізде менің зерттеу жұмыстарын жүргізуге рұқсат беруіңізді сұраймын. Зерттеудің мақсаты мектеп жұмысын немесе мұғалімдердің кәсібилігін бағалау емес деп сенемін. Бұл зерттеудің мақсаты жаңартылған білім беру бағдарламасы аясында жұмыс жасайтын мұғалімдердің тәжірибесін зерттеу болып табылады.

**Сипаттамасы.** Осы зерттеуде мен өз тақырыбымды зерттеу үшін кейс-стади әдісін қолданамын, сондықтан сіздің мектеп мұғалімдеріне сұхбатқа қатысу ұсынылады.

Сұхбат 60 минуттан озбайды және оқытушының жеке рұқсатымен диктофонға жазылады. Зерттеуші қатысушылардың жеке басын анықтау болдырмау үшін бейне мен фотосуреттерді түсірмейді. Сонымен қатар, лақап аты мұғалімдердің жеке басын қорғау үшін қолданылады.

Қатысушылар үшін қолайлы күн, сұхбат уақыты мен орны Сіздің және мұғалімдеріңізді зерттеуге қатысуға келісім алғаннан кейін оқытушылармен талқыланатын болады. Сұхбат алғаннан кейін жиналған деректер тек зерттеу мақсаттарында ғана пайдаланылады және құпия сақталады. Деректерді талдағаннан кейін барлық электрондық және қағаз деректері жойылады.

**Тәуекелдер.** Осы зерттеуге қатысудың әлеуетті тәуекелдері мыналар болып табылады: қатысушылар немесе зерттеуші тарапынан алдау және зерттеуші мен қатысушылар арасындағы деректерді жинауға қатысты әлеуетті жанжал. Бұл

жағдайда мен түсіністікті болдырмау үшін өзін бейтарап және сыни емес ұстаймын және ақпараттық параққа енгізілген барлық процедураларды ұстанамын.

**Артықшылықтары.** Алынған ақпарат зерттеушілер мен білім саласының мамандарына жалпы орта мектеп мұғалімдерінің жаңартылған білім беру бағдарламасы аясында жұмыс жасау тәжірибесі бойынша түсінікті жақсартуға көмектесе алады.

**Құпиялылық.** Осы зерттеу барысында алынған кез келген ақпарат толық құпиялықта сақталады. Ақпарат немесе кез келген жиналған деректер тек зерттеу мақсатында қолданылады. Деректерді Назарбаев Университетінің Жоғары білім беру мектебінің ғылыми басшылары зерттейтін болады. Алынған деректер құпия сөзді қорғау арқылы зерттеушінің дербес ноутбукте сақталады. Зерттеу аяқталғаннан кейін деректер жойылады. Егер сіз атыңызды бөліскіңіз келмесе, аттар жойылады.

**Зерттеудің ерікті сипаты.** Бұл зерттеуге қатысу қатаң ерікті болып табылады және егер қатысуға келісім болса, ол кез келген уақытта зиян келтірмей кері қайтарылуы мүмкін.

**Байланыс ақпараты.** Егер сізде осы зерттеу, оның процедуралары, тәуекелдері мен артықшылықтары туралы қандай да бір сұрақтар, мәселелер немесе шағымдар болса, зерттеуші Амир Ажмухамбетовке хабарласыңыз, +77472295799, amir.azhmukhambetov@nu.edu.kz кез келген басқа сұрақтар немесе мәселелер бойынша Назарбаев Университетінің Институционалдық зерттеулер этикасы жөніндегі комитетіне, resethics@nu.edu.kz хабарласуға болады.

**Келісім туралы өтініш,**

Мен, \_\_\_\_\_,

Осы зерттеуді мектепте жүргізуге ерікті келісім беремін.

Зерттеушілер маған бастапқы ақпаратты және зерттеудің мақсатын, сондай-ақ осы зерттеуге қызметкерлердің қатысу рәсімін нақты түсіндірді.

Мен осы зерттеу барысында жиналған ақпарат құпия қаралады деп түсінемін.

Қолы: \_\_\_\_\_ Күні: \_\_\_\_\_

Зерттеуші: \_\_\_\_\_

Қолы \_\_\_\_\_ Күні \_\_\_\_\_

**Appendix B****INFORMED CONSENT FORM**

Teachers' experiences of the updated pedagogy within the scope of the Curriculum reform:

A case study of two mainstream schools in Kazakhstan

**DESCRIPTION:** You are invited to participate in a research entitled "Teachers' experiences of the updated pedagogy within the scope of the Curriculum reform: A case study of two mainstream schools in Kazakhstan". You are invited to participate in the research study because you work at the school, which has already transitioned to the Updated Curriculum. You are one of 8 teachers participating in the study. This form is part of a process known as informed consent and allows you to understand this study before deciding whether or not to take part.

**TIME INVOLVEMENT:** Your participation will take approximately *1 hour*.

**RISKS AND BENEFITS:** The risk of this study is that this research involves the participants' time.

This project has several potential benefits to the participants. First, it is an excellent opportunity for teachers to provide feedback on their experiences toward updated pedagogy and the reform implementation in mainstream school contexts. Secondly, possible outcomes of the research might demonstrate how teachers accomplish the shift to learner-centered pedagogy, which is strongly promoted within the current curriculum initiative. Therefore, school stakeholders can become better aware of their teaching practice impacted by curriculum reform, as well as policy makers and school leaders will better support teachers in mainstream schools in the implementation of pedagogic reforms.

**Compensation.** No tangible compensation will be given. A copy of the research results will be available at the conclusion of the study.

**Confidentiality & Privacy.** Any information that is obtained during this study will be kept confidential to the full extent possible. All efforts, within reason, will be made to keep your personal information in your research record confidential but total confidentiality cannot be guaranteed.

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

**CONTACT INFORMATION:**

**Questions:** If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, contact the Master's Thesis Supervisor for this student work, Professor Naureen Durrani, [naureen.durrani@nu.edu.kz](mailto:naureen.durrani@nu.edu.kz)

**Independent Contact:** If you are not satisfied with how this study is being conducted, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact NUGSE Research Committee to at [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz)

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

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

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

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

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

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

### КЕЛІСІМ ФОРМАСЫ

Мен, \_\_\_\_\_, мұғалімнің жанартылған білім беру бағдарламасы аясында жұмыс жасайтын мұғалімдердің тәжірибесін зерттеуге бағытталған зерттеу жұмысына қатысуға келісімімді беремін.

Зерттеудің қатысушысы ретінде бір интервьюге қатысатынымды түсінемін. Мен интервьюдің өзіме ыңғайлы уақытта және ыңғайлы жерде өткізілетін түсінемін. Мен интервьюдің ұзақтығы алпыс минуттан аспайтынын және оның диктофонға жазылатынын түсінемін.

### ЗЕРТТЕУ ЖҰМЫСЫНА ҚАТЫСУДЫҢ ҚАУІПІ МЕН

**АРТЫҚШЫЛЫҚТАРЫ:** Маған шетін сұрақтар қойылмайтындықтан, сондай-ақ менің және мектептің аты еш жерде көрсетілмейтіндіктен мен аталмыш зерттеуге қатысудың әлеуетті қаупінің жоғын түсінемін. Дегенмен, зерттеу қатысушыларының саны аз болғандықтан, менімен бірге жұмыс істейтін адамдардың жеке басымды анықтау ықтималдығы барын түсінемін. Мен мектеп әкімшілігінде деректерге қол жеткізу мүмкіншілігінің жоқтығын және бұл деректер мектептік бағалау немесе жүйені бағалау ретінде менің қызметімді бағалау үшін пайдаланылмайтындығын түсінемін.

Мен өзім туралы барлық өңделмеген деректер маған қолжетімді болатындығын түсінемін. Зерттеу барысында жиналған барлық деректер бұғатталған файл арқылы қорғалатынын және бастапқы деректер негізгі зерттеуші мен оның ғылыми жетекшісіне ғана қолжетімді болатындығын түсінемін. Зерттеуші магистрлік

бағдарламасының барлық талаптарын сәтті орындағаннан кейін, барлық деректер жойылатынын түсінемін.

Зерттеудің маған тікелей пайдасы болмаса да, алынған ақпарат зерттеушілер мен білім саласының мамандарына жалпы орта мектеп мұғалімдерінің жаңартылған білім беру бағдарламасы аясында жұмыс жасау тәжірибесі бойынша түсінікті жақсартуға көмектесе алатынын түсінемін. Мен зерттеу нәтижелерінің қорытындысын және де қаласам, магистр жұмысының толық көшірмесін ала алатындығымды түсінемін.

**ҚАТЫСУШЫ ҚҰҚЫҚТАРЫ:** Мен зерттеуге қатысушылығым ерікті екенін және кез-келген уақытта зерттеу жұмысына қатысу туралы келісімді кері қайтарып, оған қатысудан бас тартуыма құқығым барын түсінемін. Зерттеуге қатысудан бас тартқаным мен туралы пайымды пікір шығаруға себеп болмайтынын түсінемін. Сонымен қатар мен зерттеу жұмысы бойы негізгі зерттеушіге немесе оның жетекшісіне сұрақ қоюға немесе ескертпелер білдіруге болатынын және қандай да бір интервью сұрақтарына жауап беруден бас тартуға құқығым барын түсінемін. Деректердің сақталуын қамтамасыз ету үшін зерттеуші интервьюді диктофонға жазып отыратынын түсінемін. Мен зерттеу жұмысының нәтижелері ғылыми-зерттеу мақсаттарында ғана қолдана алатындығын түсінемін.

**БАЙЛАНЫС АҚПАРАТЫ:** Мен жүргізіліп отырған зерттеу жұмысы, оның тәртібі, қаупі мен артықшылықтары туралы сұрақтарым немесе шағымым болса Назарбаев университеті Жоғары білім беру мектебінің Зерттеу комитетімен [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz) электрондық поштасы арқылы байланыса алатынымды түсінемін.

**Мен аталмыш зерттеуге қатысу шарттарын оқып, түсіндім. Мен зерттеуге қатысуға келісемін.**

Қолы: \_\_\_\_\_ Күні: \_\_\_\_\_

### ФОРМА СОГЛАСИЯ

Я, \_\_\_\_\_, даю свое согласие на участие в исследовании по изучению опыта учителей работающих в рамках обновленного содержания образования.

Я понимаю, что в качестве участника исследования, я приму участие в одном индивидуальном интервью. Я понимаю, что интервью будет проводиться в удобное для меня время и место. Я понимаю, что интервью будет длиться не более шестидесяти минут и будет записано на диктофон.

**РИСКИ И ПРЕИМУЩЕСТВА:** Я понимаю, что потенциальных рисков, связанных с этим исследованием, нет, так как мне не будут заданы деликатные вопросы и моя личность, как и название школы, не будут раскрыты. Тем не менее, я понимаю, что есть вероятность определения моей личности людьми, которые работают со мной из-за маленького количества участников. Я понимаю, что у администрации моей школы доступа к данным не будет и, что эти данные не будут использоваться для оценки моей деятельности, в качестве школьной оценки или оценки системы.

Я понимаю, что у меня будет доступ ко всем необработанным данным обо мне. Я также понимаю, что все данные, собранные во время исследования, будут защищены в заблокированном файле и, что только главный исследователь и ее научный руководитель будут иметь доступ к первичным данным. Я понимаю, что все данные будут уничтожены после того, как исследователь успешно выполнит все требования своей магистерской программы.

Я понимаю, что, даже если для меня никакой непосредственной выгоды от исследования не будет, полученная информация может помочь как исследователям,

так и специалистам в области образования лучше понять опыт учителей общеобразовательных школ работающих в рамках обновленного содержания образования. Я понимаю, что, если пожелаю, я могу получить краткое изложение результатов исследования и копию магистерской работы в полном объеме.

**ПРАВА УЧАСТНИКОВ:** Я понимаю, что мое участие является добровольным и что у меня есть право отозвать свое согласие и прекратить участие в исследовании в любое время. Я понимаю, что мой отказ от участия в исследовании не станет причиной вынесения какого-либо оценочного суждения обо мне.

Я также понимаю, что я могу задавать вопросы или выражать свою обеспокоенность главному исследователю или ее руководителю на протяжении всего исследования и что я вправе не отвечать на какие-либо вопросы интервью.

Я понимаю, что исследователь будет записывать интервью на диктофон, в целях обеспечения сохранности данных. Я понимаю, что результаты данного исследования могут быть использованы исключительно в научных целях.

**КОНТАКТНАЯ ИНФОРМАЦИЯ:**

Я понимаю, что если у меня возникнут вопросы, замечания или жалобы по поводу данного исследования, процедуры его проведения, рисков и преимуществ, я могу связаться с Комитетом исследований Высшей школы образования Назарбаев Университета для обращения к лицу, независимому от команды исследователей отправив письмо на электронный адрес [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz)

Подпись \_\_\_\_\_ Дата \_\_\_\_\_

## Appendix C

### Interview protocol

**Research title:** Teachers' experiences of the updated pedagogy within the scope of the Curriculum reform: A case study of two mainstream schools in Kazakhstan

**Central Question:** How do teachers experience pedagogic shift associated with the Updated Curriculum?

**Sub-question #1:** How do teachers understand their expected role and that of their students within the revised pedagogy?

**Sub-question #2:** What do teachers say they do in order to shift their pedagogy according to the Updated Curriculum?

**Sub-question #3:** What constraints teacher experience in shifting their pedagogy and how could they be supported in the shift from a teacher- to a learner-centered pedagogy?

**Sub-question #4:** How do teachers see the impact of their revised pedagogy on themselves and their students?

#### Interview questions:

1. How long have you been teaching at this school?
2. How long have you been working within the Updated Curriculum?
3. Could you tell the reasons why Kazakhstan initiated curriculum reform in school education?
4. What do you find as the most useful change implemented within the scope Updated Curriculum?
5. In what ways do you think the Updated Curriculum has affected teachers' pedagogy?
6. In what ways do you think the Updated Curriculum has affected your pedagogy?
7. How do you characterize learner-centred pedagogy?
8. Do you think teachers in general have successfully shifted to learner-centered pedagogy? If so, explain how? If not, tell me what challenges teacher face in making a complete shift to learner-centred pedagogy?
9. Do you think you have successfully shifted to learner-centred pedagogy? If so, explain how? If not, tell me what challenges you face in making a complete shift to learner-centred pedagogy?
10. How can the State or policymakers better support teachers in the process of reform implementation?

## Appendix D

## A short extract of the coded transcript

Codes (patterns)	Interview transcripts T = Teacher; R= Researcher	Commentary & interpretation
<p data-bbox="132 613 328 674">An experienced teacher</p> <p data-bbox="132 1133 344 1256">Teaching experience of the Updated Curriculum</p> <p data-bbox="132 1480 328 1603">Teaching experience of the Updated Curriculum</p>	<p data-bbox="371 454 1054 555"><b>1. How long have you been teaching at this school?</b></p> <p data-bbox="371 600 1158 701">Since 2011, I have been teaching at this school for a full 8 years.</p> <p data-bbox="371 745 874 779"><b>What is your total work experience?</b></p> <p data-bbox="371 824 983 857">In general, my teaching experience is 10 years.</p> <p data-bbox="371 902 1110 1003"><b>2. How long have you been working within the Updated Curriculum?</b></p> <p data-bbox="371 1059 1142 1093">Since the Updated Curriculum was launched in 2017, 2016.</p> <p data-bbox="371 1137 1142 1395"><b>Since the reform was launched, I have been working within the Updated Curriculum.</b> There was introduced a novelty and Chemistry began to be taught from the 7th grade.</p> <p data-bbox="467 1429 839 1462"><b>It was not this way before?</b></p> <p data-bbox="371 1507 1158 1541">Previously, it (Chemistry subject) started from the 8th grade.</p> <p data-bbox="371 1574 1046 1686"><b>That is, you have been working within the Updated Curriculum for about 3 years?</b></p> <p data-bbox="371 1720 552 1753">Yes, 3 years.</p>	<p data-bbox="1185 611 1493 813"><i>RT2 is a well-experienced teacher with about 10 years of teaching at the school.</i></p> <p data-bbox="1185 1059 1493 1585"><i>RT2 has started teaching the Updated Curriculum since it was launched in 2016, which means that she has sufficient knowledge of teaching the Updated Curriculum for 3 years.</i></p>