

**Exploring Secondary School Teachers' Perceptions of Flipped Classroom Approach in a
City in Southern Kazakhstan**

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This letter now confirms that your research project titled *Exploring secondary school teachers' perceptions of flipped classroom approach in a city in southern Kazakhstan* has been approved by the Graduate School of Education Ethics Committee of Nazarbayev University.

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

Yours sincerely,

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ABSTRACT

Exploring Secondary School Teachers' Perceptions of Flipped Classroom Approach in a City in Southern Kazakhstan

This qualitative study examines secondary school teachers' perceptions of the flipped classroom approach in a city in southern Kazakhstan. The research contributes to the limited literature on flipped classroom implementation in the unique context of Kazakhstan, providing insights into its potential benefits and challenges. Through semi-structured interviews with four teachers who have used the flipped classroom approach, the study reveals their perceptions of its impact on student learning, as well as their experiences of implementing it. Findings suggest that teachers perceive the flipped classroom approach to have a positive impact on student motivation, engagement, and performance. However, the implementation of the approach is also associated with several challenges, such as technological issues, time constraints, and difficulties in managing student participation. The study highlights the importance of teacher training and support for successful flipped classroom implementation. Additionally, the research provides insights into the potential positive impact of teachers conducting research in their own schools and the need for them to share their experiences with others to improve the quality of education in Kazakhstan.

Keywords: flipped classroom, secondary education, Kazakhstan, qualitative research, teacher perceptions, teacher experiences, student learning, student engagement, student motivation, teacher training, teacher support.

Аңдатпа

Бұл сапалы зерттеу орта мектеп мұғалімдерінің Қазақстанның оңтүстігіндегі қаладағы "төңкерілген сынып" тәсілін қабылдауын зерттейді. Зерттеу Қазақстанның бірегей контекстінде төңкерілген сыныпты енгізу бойынша шектеулі әдебиеттерді толықтырады, оның әлеуетті артықшылықтары мен проблемалары туралы түсінік береді. "Төңкерілген сынып" тәсілін қолданған төрт мұғаліммен жартылай құрылымдалған сұхбаттар арқылы зерттеу олардың оқушылардың оқуына әсері туралы түсініктерін, сондай-ақ оны жүзеге асыру тәжірибесін ашады. Нәтижелер мұғалімдердің сабаққа төңкерілген көзқарас оқушылардың мотивациясына, қатысуына және үлгеріміне оң әсер етеді деп санайтынын көрсетеді. Дегенмен, бұл тәсілді енгізу технологиялық мәселелер, уақыт шектеулері және студенттердің қатысуын басқарудағы қиындықтар сияқты бірқатар мәселелермен де байланысты. Зерттеу "төңкерілген сыныпты" сәтті енгізу үшін мұғалімдерді даярлау мен қолдаудың маңыздылығын көрсетеді. Сонымен қатар, зерттеу өз мектептерінде зерттеу жүргізетін мұғалімдердің әлеуетті оң әсері туралы және олар үшін Қазақстандағы білім беру сапасын жақсарту үшін өз тәжірибелерімен басқалармен бөлісу қажеттілігі туралы түсінік береді.

Түйінді сөздер: төңкерілген сынып, Орта білім, Қазақстан, сапалы зерттеулер, мұғалімдерді қабылдау, мұғалімдердің тәжірибесі, оқушыларды оқыту, оқушыларды тарту, оқушыларды ынталандыру, мұғалімдерді даярлау, мұғалімдерді қолдау.

Аннотация

В этом качественном исследовании изучается восприятие учителями средних школ подхода "перевернутого класса" в городе на юге Казахстана. Исследование дополняет ограниченную литературу по внедрению перевернутого класса в уникальном контексте Казахстана, предоставляя представление о его потенциальных преимуществах и проблемах. С помощью полуструктурированных интервью с четырьмя учителями, которые использовали подход "перевернутого класса", исследование раскрывает их восприятие его влияния на обучение учащихся, а также их опыт его внедрения.

Полученные данные свидетельствуют о том, что учителя считают, что перевернутый подход к занятиям оказывает положительное влияние на мотивацию, вовлеченность и успеваемость учащихся. Однако внедрение этого подхода также связано с рядом проблем, таких как технологические проблемы, временные ограничения и трудности в управлении участием студентов. Исследование подчеркивает важность подготовки учителей и поддержки для успешного внедрения "перевернутого класса". Кроме того, исследование дает представление о потенциальном положительном влиянии учителей, проводящих исследования в своих собственных школах, и о необходимости для них делиться своим опытом с другими для улучшения качества образования в Казахстане.

Ключевые слова: перевернутый класс, среднее образование, Казахстан, качественные исследования, восприятие учителей, опыт учителей, обучение учащихся, вовлеченность учащихся, мотивация учащихся, подготовка учителей, поддержка учителей.

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1. Introduction

1.1 Background Information

Since independence Kazakhstani education system has undergone many reforms and changes with the main goal of providing quality education that followed the trends of the modern world to all students. One of the main directions of those reforms was to change the style of teaching from teacher-centered, which was inherited from the Soviet Union education system to a student-centered approach, where teachers serve as guides for students and encourage them to study independently by developing necessary skills (Ixanova, 2018; Yakavets & Dzhadrina, 2014). One of the student-centered teaching methods which are gaining prominence in the education field and where students of all levels of schooling show better academic performance and engagement in learning is Flipped Classroom Approach (FCA) (Bhagat et al., 2016). In simple terms, FCA is a model of teaching where what is normally done in class and as homework is switched or flipped. Instead of listening to lectures in a classroom and then working on assignments at home, students read materials and watch videos on the upcoming topic before coming to class and then engage in class and do practical work in active learning in different forms (Herreid & Schiller, 2013). There are many advantages of implementing this approach both for teachers and students. The main benefits for students are having an opportunity to learn at their own pace, be more engaged and involved in the learning process, use scientific equipment that is only available in the classroom, work more on authentic research, and those who missed the class can watch and read the materials later and be caught up with their peers. Teachers can also benefit from using FCA by learning better about their students' difficulties and learning styles by doing "homework" in class, being able to easily customize and update the curriculum and provide it to students, promoting "thinking inside and outside the classroom", and by making the learning process more available and enjoyable for students (Fulton, 2012, as cited in Herreid & Schiller, 2013, p.62).

1.2 Problem Statement

The education system of Kazakhstan is still in the process of development and there are many areas for improvement. As statistics show, in terms of truancy of students, Kazakhstan is in third place among Eastern Europe and Central Asian countries (EECA). In addition, students of Kazakhstan tend to spend more time attending paid classes outside of school (OECD/UNICEF, 2021). This indicates a low level of student involvement in the learning process in the school. Findings also show that Kazakhstan has the highest percentage of students whose principal reported that such behaviors of teachers as absenteeism, not being well prepared for classes, resisting change, and not meeting individual needs of students hindered student learning a lot in their schools (OECD/UNICEF, 2021). In other words, while some students are not motivated to learn at schools and rather prefer to attend more educational courses outside the school, others who are not able to afford it or are willing to learn from their teachers face the reality where teachers themselves prevent the effective learning environment to take place. Of course, not all teachers are experienced or motivated enough to put hard work into improving the situation or are able to present the material in such a way where every student would be satisfied and understand the material and be ready to apply it in practice. Finding solutions to such problems is not an easy task, especially finding the one that would meet all the requirements to solve all of them. However, taking into account all of the advantages FCA has, it aligns perfectly with the above-mentioned areas of improvement and it could benefit greatly the education system of Kazakhstan.

Despite the fact that this method of teaching is relatively new, it is becoming popular among educators around the world and gaining importance because not only does this method give more time for active learning, but also it allows the integration of new technology, which is very important in today's reality (Unal et al., 2021). However, from my personal teaching experience in southern, northern and eastern regions in such types of schools for

gifted children as Kazakh-turkish lyceums, NIS schools and Daryn schools in Kazakhstan, a conclusion can be drawn that this innovative approach is almost never used among our school educators even after attending special training courses on the upgraded curriculum.

According to Henson (2010), in order to successfully implement changes in the curriculum first of all teachers must change their behavior and that their attitudes and beliefs play a significant role in the educational reforms. Therefore, it is of high importance to identify teachers' perceptions, beliefs, and attitudes towards Flipped classroom approach and to discover what factors might support or impede the implementation of such innovative teaching techniques. This way it may help building an effective student-oriented educational environment benefiting from the improvement of the modern technology by applying them into the educational process.

1.3 Purpose of the Study

The purpose of this qualitative study is to explore teachers' perception of flipped classroom. More specifically, teachers who teach in a secondary school in a city in southern Kazakhstan, as majority of their students, especially in senior classes, tend to go to educational courses right after the classes. Also, the research is intended to find out what are their views on using it in their teaching practice.

1.4 Research Questions

The following main research question emerge from the problem statement associated with attitudes of teachers toward the Flipped Classroom Approach:

- 1) What are teachers' perceptions of FCA and using it in their practice?

1.5 Significance of the Study

This study is significant in terms of contribution to the existing body of empirical research on the implementation of the flipped classroom approach in Kazakhstani secondary

schools. The number of studies carried out in this area is not so extensive, especially the ones exploring teachers' perceptions of a new approach and the ways of implementing it in their teaching practice. Therefore, this study will help to fill the gap in the literature on changes in teaching practice and the attitudes of teachers to this change.

It is also important to explore the perspectives of secondary school teachers towards such active teaching approaches like Flipped classrooms as findings will help to identify the challenges they experience in implementing these techniques, and what kind of support can be offered to them. The findings of this study will give a chance for the reader to look at the implementation of these active teaching approaches from the teachers' perspectives. This study also gives teachers an opportunity to give their opinion and express their thoughts about the content of the flipped classroom approach and reflect on their implementation. Finally, the significance of this study is also evident through the detailed descriptions of the perceptions of secondary school teachers of Flipped Classroom model of teaching, which could provide valuable insights and information for researchers, practitioners, pre-and in-service teachers, teacher trainers, policymakers and other educational professionals and giving them an opportunity to learn what factors might influence the perception of teachers and encourage or impede them from implementing this teaching approach. Considering the findings from the study, some of the stakeholders might consider integrating the FCA model into their classrooms or creating a blended model that could be a hybrid of the traditional offline teaching style and the FCA.

1.6 Summary

This chapter provided an overview of current problems and areas for improvement in the education system of Kazakhstan, what problem this research is aimed to look at and explore in more depth, research questions and significance of the study. Main aim of this study is to get more in-depth information about the flipped classroom approach and its

implementation from the point of view of a teacher in a secondary school where the majority of students are not eager to study at school and rather go to paid specialized courses.

The next chapter will be dedicated to the exploration of this topic from the point of view of other researchers from around the world and will look at findings from other relevant and most recent studies conducted on the same or similar topic. The third chapter will describe the design of the current study mentioning the research design, how sampling and data collection procedures will be conducted and the collected data will be analyzed. The last two chapters will concentrate on findings from the conducted research and will include the discussion of those findings.

2. Literature Review

2.1 Introduction

The purpose of this study is to explore teacher perceptions of flipped classroom and its implementation into their teaching practice. The chapter provides a review of the relevant literature focusing on the FC teaching model. It comprises the definition of the flipped classroom, different perspectives on FC of key stakeholders, and the implementation of the Flipped classroom.

2.2 Definition of Flipped Classroom

Despite a large number of descriptions of the flipped classroom among researchers, it is broadly accepted that it is a teaching model whereby students learn more outside the classroom and spend more in-class time for discussions and practical activities (Sams & Bergmann, 2012). In general, the Cambridge dictionary (n.d.) defines the term “flipped classroom” as a teaching method in which students first learn about a new subject at home, especially online, and then discuss it in class. However, this definition of the term gives only a shallow description of the teaching approach and does not grasp the specifics of it. Thus, in order to get a deeper understanding of the term, it is essential to look at the interpretations of the flipped classroom from different perspectives.

One of the essential parts of the Flipped classroom is video lectures which are used to deliver the content of the upcoming lesson and are assigned to students to watch on their own. However, the role of video lectures might be misunderstood if implemented into teaching practice inappropriately. On this point, Tucker (2012) suggests that it is not only videos on their own, but how they are integrated into an overall approach. To maximize the effectiveness of those video lectures additional tasks such as note taking and coming up with a question on the topic should also be assigned. This way the teacher will be able to identify

struggling students, spend more time with them, and let other students work more independently, not slowing down their pace of learning.

Another aspect of the approach worth mentioning is concerned with the responsibility for learning. Ozdamli and Asiksoy (2016) mentioned that it is a way of making students more responsible for their preparedness for the lesson and giving them the opportunity to make the learning process more individualized in accordance with their own needs. However, they also note that it is important not to leave students on their own and rely only on video lectures as they are not the replacement of the teacher. Interactive activities held in the classroom also play a significant role in all of the features of the Flipped classroom. The time spent watching pre-recorded lectures and doing practical tasks in the classroom should be managed appropriately.

Considering all the aspects of the Flipped classroom mentioned above, the term can be explained as a teaching model with a system of out-of-class self-studying materials and reflective assignments provided to students by teachers on a certain topic followed by in-class practical interactive activities divided into different levels in accordance with students' learning capabilities. Those students who are struggling are scaffolded by the teacher's support. As this definition includes all important and core aspects of flipped classroom approach that were mentioned above, I will be using it throughout the course of this study.

2.3 Perspectives on Flipped Classroom

With a growing number of studies conducted on the subject of flipped classrooms and their different representations, the majority of opinions come to a positive conclusion about the approach (Ozdamli & Asiksoy, 2016). As it was reviewed, Butt (2014) mentions that the results of eleven studies conducted in Australian National University with final-year students in the undergraduate actuarial program, investigating students' points of view on the Flipped classroom revealed a consistent tendency of students to have a positive attitude towards the

approach. Most of the students showed a great interest in learning the subject differently. However, not all of them shared the same opinion as some of the students said that it is more difficult for them to adapt to these changes and be on their own when they have trouble understanding a new topic without the help of the teacher. Most of those cases were in the classes where it was students' first year of studies in an institution and it was the introductory course for the subject. Thus it is very important to take into consideration the level of background knowledge and preparedness of the students to being introduced to and taught the subject by implementing the flipped classroom approach (Butt, 2014).

Despite the fact that the majority of students in different studies above showed great interest and engagement while studying in a Flipped classroom, in another study by Lai and Hwang (2016) it was discovered that the student's level of self-regulation skills and being able to control their self-efficacy have a significant influence on students' attitude towards the flipped classroom teaching model. The findings revealed that in those classes where teachers provided more scaffolding to students during the out-of-class preparation time and had well-developed instructions on how to plan their self-study time and how to do the assigned tasks had less anxiety while preparing for the upcoming lessons. This way it is clear that the importance of the teacher and the effort they put into developing before-class materials goes far beyond the actual out-of-class time spent by students. Those students who were given the least amount of instructions reported that they were frequently distracted by other factors and content unrelated to their lessons and one of the main problems they faced was the inability to maintain their concentration on the lesson-related assignments (Lai & Hwang, 2016).

As it was clear from the points mentioned above, teachers play an essential role in a flipped classroom building a student-centered learning environment. Moreover, teachers who have tried flipping their classrooms or have implemented this teaching model in their practice

have a positive attitude toward the Flipped classroom. For instance, Fadel (2022) mentioned that a questionnaire about the point of view of teachers of English for specific purpose in Algerian universities on flipped classroom approach revealed that they loved their experience with the Flipped classroom because it offered many advantages such as spending more class time focusing on important ideas and involving students in problem-solving activities. Moreover, they also noted that their role had changed from being the source for every student to being a guide and a facilitator which made their students more engaged and motivated to learn the subject in more depth. This point of view can be much supported by the findings of many other researchers who investigated the attitude of teachers towards the flipped classroom. However, an overall positive and satisfactory viewpoint of teachers on flipped classroom approach is common among colleges and higher educational institutions (Rybinski & Sootla, 2016; Zhamanov et al., 2018; Mok, 2014; Aburayash, 2021; Yasar & Polat, 2021).

In comparison, at the school level not so many teachers have a positive attitude about the flipped classroom approach. As was investigated by Mujtaba Asad et.al. (2022), in the Pakistani public school sector teachers are more concerned about the availability of the technology needed for implementing the approach and about the preparation time they have to spend on every lesson compared to a traditional classroom routine. Teachers also mention the least amount of expertise expected from teachers to arrange the necessary tools and assignments for the students to learn from. Unfortunately, not many teachers are familiar enough with such kind of technology and have extra time to learn how to use it and implement it in their classrooms. Most of the time when students are given a task to prepare for the upcoming lesson at home via video lectures pre-recorded by the teacher, they lack good quality.

2.4 Implementation of Flipped Classroom

Defining when we can use the flipped classroom model is very important since it can be applied while solving specific types of teaching and learning problems. Important features of the flipped classroom are the opportunity for all students to get the access to the content of the lesson regardless of their attendance, having more time for interaction between teacher and the student rather than for teaching and providing students more time to make inventive researches (Ozdamli & Asiksoy, 2016). Danker (2015) presents another important dimension of the flipped classroom technology, which is making a student more aware and responsible for their learning. The technique makes students learn the subject through application and practice and afterwards sharing the experience with others in the class. In other words, as students go through the course, they are more aware of why they are learning it and how to apply this knowledge in certain situations.

In another study Galindo-Dominguez (2021) discusses the current implementations of the Flipped Classroom methodology and analyzes its effectiveness compared to other teaching approaches. He says that even though many researchers in the educational field propose that the Flipped Classroom approach is an effective method of teaching and many statistics had been given in favor, several variables should be taken into account before implementing this approach. In the article, Galindo-Dominguez (2021) indicates that the findings of this study revealed that the Flipped Classroom could be more beneficial compared to other approaches when applied to Secondary and Higher Education students, and equally beneficial than other methodologies when applying to Primary Education students. In other words, there will not be any difference in the effectiveness of teaching whether you use traditional or any other methodology or Flipped Classroom approach when you conduct a lesson for Primary School students. Galindo-Dominguez (2021) indicates that there are several factors that influence the effectiveness of this approach, and one the most important is the accessibility to digital resources and the presence of a medium-high digital competence.

To put it simply, it is nearly impossible to use this approach if students or teachers have no access to modern technology and the internet.

Taking into account all the advantages that the Flipped Classroom has, it is also very important to consider all the factors influencing the effectiveness of the implementation of the approach when planning the curriculum in accordance with the Flipped Classroom. It is desirable for any educator to consider the stages of the educational system of their students and the availability of the internet and the devices in order to conduct a lesson in a Flipped Classroom design.

2.5 Summary

From the review of the recent related literature we can conclude that there are many different factors influencing the effectiveness of the implementation of the flipped classroom and also the attitudes of the key stakeholders, especially the teachers' perspective, play a significant role in building a proper learning environment. A teacher must be aware of the circumstances in which their students are living in terms of availability of all the necessary equipment for the flipped classroom and more importantly a teacher must have a decent understanding and expertise in using modern technologies so that the learning process is managed properly without any problems.

Another important aspect worth mentioning is the fact that the approach is sometimes not suitable for certain situations like introductory courses to the subject and in elementary level of the school education system. Thus, it is essential to assess the compatibility of the approach with the circumstances it is going to be implemented into so that the effectiveness of it would be higher.

All of the factors above influence the attitude of both students and teachers towards the flipped classroom approach and the experience they encounter. However, there is a lack

of studies conducted on the attitudes towards the approach from the key stakeholders in Kazakhstani context especially among teachers in secondary schools where the implementation of the flipped classroom might be beneficial and be suitable. As they are the most important participants of implementing any innovative methods of teaching and their attitudes can impact the effectiveness of its implementation, there is a need in exploration of this area, which will help to understand in more depth the areas which need to be considered for the improvement of the quality and quantity of the actual applying of the flipped classroom.

This study is aimed at exploring the perceptions and attitudes of flipped classroom of the Kazakhstani secondary school teachers in southern region. The findings of this investigation will give invaluable insights about the implementation of the flipped classroom and will be beneficial for policymakers in planning the design of the learning process addressing the above-mentioned issues of the school education system in Kazakhstani secondary schools.

The next chapter will be dedicated to the design of the study, data collection procedures, selection of the site and participants, how the data collected will be analyzed and how ethical issues that might appear in the study will be addressed.

3. Methodology

3.1 Introduction

This chapter presents the research methodology selected to answer the research questions of this study about the perceptions of secondary school teachers of flipped classroom. Moreover, it describes the research design of this study, the site, the strategy for sampling, instruments used for collecting the data and how the data will be analyzed, the ethics and limitations of the current study.

3.2 Research Design

There are two main research designs in the field of educational research which serve different purposes depending on the needs of the researcher in conducting a study: quantitative and qualitative. Quantitative research design is more concerned with the numbers, statistics, finding correlations in variables and trends among the given field of study. The results of this type of study can be tested, measured, replicated and generalized on the population of the area. Whereas qualitative design gives an opportunity to gain more in-depth understanding, interpretations and different points of view on the central phenomenon (Merriam & Tisdell, 2015).

The intent of this study is to explore the perceptions of teachers of FCA and its implementation. Thus, the design of the research for this study is the qualitative approach, as it is the most appropriate to fulfil the aim of this study and to answer the research question.

In order to gain an in-depth understanding of the perceptions of teachers who are practicing FCA and critically explore the topic from their point of view, the qualitative research design and case study methodology are chosen as it fits the qualitative nature of the research. This research design gives an opportunity to the researcher to examine the

perspectives and experiences of those individuals who actually experienced the central phenomenon (Creswell, 2014).

3.3 Methods of data collection

One method of data collection was selected: conducting interviews (semi-structured interviews).

The semi-structured interviews were selected to be the most suitable tool for collecting the necessary data for the research as the findings from the interviews give the insights and deeper understanding of the central phenomena from the points of view of the participants (Creswell, 2014). Interviews were used as the primary data-collection tool.

3.4 Site and Samples

In order to select those participants who can give more in-depth understanding of the central phenomenon and to answer the research questions of this study they were selected intentionally using the purposeful sampling method (Creswell, 2014). As the current study is investigating the perceptions of flipped classroom of secondary school teachers the participants were selected from those secondary schools where the flipped classroom model was fully or partially implemented or at least heard about this teaching approach. In order to have samples that differ on some characteristics or trait the maximum variation sampling strategy was used in this study. Selected teachers had different years of experience and gender and also were from different departments. Overall, the exact number of participants selected to conduct this study were 4 teachers.

3.5 Data Collection Procedures

The research was conducted in accordance with all ethical principles and standards. Also, as this study involved secondary school teachers and their personal points of view were recorded and analyzed, the procedures of the research and its description was provided to the board of reviewers of the university for the approval (Creswell, 2014). After gaining the

needed approval from the GSE review board before starting the data collection procedure on the site, the researcher obtained the permission to conduct the study from the gatekeeper (i.e. principal or vice-principal). The participation in the study was voluntarily and all the participants were fully informed about the procedures of the study as well as the purpose and the nature. The participants of the study were provided with all the necessary information about the nature and aim of the study in the form of introductory letter and a consent form.

An interview protocol was designed with the information about the study, instructions for the participant, interview questions and additional space for the participant to take notes and make reflections. Two days before the interview the researcher contacted the participants in order to remind about the upcoming interview and arranged the meeting and agreed on time convenient to them. A private one-on-one meeting was conducted with each of the participants with one or two follow up questions, if necessary, in a school setting. Each interview took approximately 60 minutes, all the answers were recorded on audio recorder and notes were taken. Later these recordings were fully transcribed and then coded. In total the researcher conducted 4 semi-structured interviews in the language the participant was comfortable with, either Russian or Kazakh.

Available documentations were collected from the public resources and private document were also collected with the permission from the relevant people. Field notes and notes from the reflective journal of the researcher were also used for data collection and analysis. All necessary documentations were gathered into one Word document and was kept privately in a password secured folder on a personal computer of the researcher.

3.6 Data Analysis

The process of analyzing the data started at the very beginning when the researcher started reflecting on the process of collecting the data and working with the raw data. In this study the data analysis was conducted through texts, interpretations and meanings. The

recordings of interviews were fully transcribed and then coded according to the concepts that participants were reflecting on giving their opinion. Coding and division of the interview material consisted of several stages, starting from broader topics, narrowing down to certain concepts, ideas and issues participants were mentioning more frequently during the interview. Concepts and ideas that have closer relation to the research questions were located and then were further analyzed in more depth within the scope of this research (Creswell, 2014). The final stage was to combine all the categories and concepts under different headings in order to develop a discussion for analysis that will allow to find the valuable insights and findings from the conducted research that addressed the main aim of this research (Merriam & Tisdell, 2015).

3.7 Ethical Issues

The study was conducted following all ethical principles and standards in accordance with the NUGSE ethics approval guidelines. One of the main priorities of the study was an ethic of respect, protection of the interests of the participants and not putting them at risk.

As it was mentioned previously, all participants were fully informed of the purpose and essential features of the study and their participation was voluntary and confidential. Each of the participants received an introductory letter and an informed consent form with the information about purpose of the study, its duration and procedures, and were also provided with the confidentiality statement. Participants were informed that they may withdraw from participation at any point in time during the course of the study. Answering the questions in the interviews was left on the decision of the participant, and if they wished not to give answer to any of the questions, the interview continued further to the next question. Participants were informed that the information gathered from the interview will be used in the research report and some excerpts from the interview will be included in the final report. However, participants' names and other identifying information was kept confidential and the

researcher used code names to protect the participants' confidentiality. Participants were also informed that the information gathered from the interview will contribute to gaining a deeper understanding of the central phenomena and finding answers to the research questions. All of the interviews were recorded on audio recorder which further was stored on a flash drive which was dedicated to be used only for the study purposes. Only the researcher had the access to the data and after the study was finished all the recordings and notes was deleted from the flash drive.

3.8 Limitations

One of the main limitations of this study might be the fact that the data collected and the outcomes had only personal attitude nature and there is a chance of the opinions being biased and subjective. As this design of research suggests gaining a deeper understanding of the central phenomena from different points of views (Creswell, 2014), many factors may influence the view being more positive or negative. In this particular study I was exploring the opinions of teachers who have an experience of using FCA or implementing some elements of this approach into their teaching and teachers who have heard about FCA but have not used it. In further researches I would suggest to consider students' point of view and also ask parents about this teaching approach. This way it would give an opportunity to gain a clearer picture of how this approach might influence not only the academic performance of the student but also the environment at home and the support from parents.

3.9 Summary

The chapter presented the methodology chosen for the study as well as the justification for the choice. A qualitative research design was found the most suitable in order to answer the research question of the study and to fulfil the aim of the investigation. Main instrument for collecting the data was chosen as semi-structured interviews with the secondary school teachers. The participants of the study were chosen purposefully from

teachers who have had an experience of using the flipped classroom fully or partially in their teaching practice or at least heard about flipped classroom approach. All the ethical issues that might occur throughout the course of the study were prevented in accordance with the GSE guidance. The next chapter will be dedicated to the findings of the study and what conclusions can be made from them.

4. Findings

This chapter outlines the results of a research study that examined how teachers in secondary schools in a large city in south Kazakhstan perceive and experience the flipped classroom approach, including its benefits and challenges. The research questions explored in this chapter were: (1) How do secondary school teachers view the flipped classroom approach? (2) What advantages are associated with using the flipped classroom approach? (3) What challenges arise when implementing the flipped classroom approach?

The findings are organized into three main themes: (1) teachers' perceptions of the flipped classroom approach; (2) benefits of using the flipped classroom approach; and (3) challenges of using the flipped classroom approach. The chapter concludes with a summary of the findings related to teacher perceptions of the flipped classroom approach.

4.1 Teachers' Perception of Flipped Classroom Approach

This section mainly focuses on how teachers perceive the flipped classroom, which refers to their understanding and opinions about it as a teaching strategy. Teachers' responses to the first research question, "How do you perceive the flipped classroom approach?" were analyzed, and responses were categorized into two sub-themes: (1) change of roles of teachers; (2) personal experiences of teachers.

4.1.1 *Change of Roles of Teachers*

Generally, understandings of the flipped classroom among participants were very similar to each other. When asked about their views on the flipped classroom, teachers' responses displayed several similarities, such as students doing their homework and practical work in classrooms while learning about the new topic and doing some research about the subject prior to this class individually by students at home by themselves. The answer of P1 was: "The teacher gives information or a link to students to prepare for the upcoming lesson

... and during class time you use it for consolidation of the material.” Similarly, P2’s answer was the following: “It is when homework is done in the class, out of class instead of doing homework students explore a new topic and come to the class only to practice it.”

Additionally, P3 added that: “It may include videos, some reading materials, using the active board or physical activities.” Whereas P4 did not add any details answering: “It is when classwork and homework change places.”

In sum, the participants of this study shared similar understandings of the flipped classroom approach. They emphasized the shift in the traditional roles of homework and classwork, with students engaging in independent learning at home through activities such as watching videos, reading materials, and doing research, while class time is dedicated to consolidating and practice of the material. This was echoed by multiple participants, including P1, P2, and P3, who highlighted the importance of students preparing for upcoming lessons at home and utilizing class time for active engagement. Although P4 did not provide additional details, his (her) response also indicated a recognition of the inversion of classwork and homework. Overall, the participants’ responses demonstrated a shared understanding of the fundamental principles of the flipped classroom model, highlighting its potential for promoting active learning and engagement in the classroom.

4.1.2 Personal Experiences of Teachers

In terms of personal experience of using FCA all participants were familiar with the notion, but not all of them had a chance to use it in their classrooms. Particularly, P2 said that he did not use the method because it was his second year of teaching, saying: “to be honest, this is my second year of teaching and I have not had a chance to use the flipped classroom in my classes yet.” The participant also added that at present he teaches mainly using the traditional classroom style.

In contrast, all of the other participants had used this teaching method. However, two of the participants had used it only in some periods of their curricula and mostly implemented it only partially using some elements of the method. In particular, P4 said: “I did not use it so often before and now also. I sent students, for example, a video, small tasks [to complete before coming to class].” Similarly, P1 also mentioned: “I have used the flipped classroom in some of my lessons.” However, not all participants had a lack of practice with the flipped classroom as it was said by P3: “Having worked as a teacher for the last six years I have practiced flipped classroom model in my lessons.”

In conclusion, while all participants in this study were familiar with the concept of the flipped classroom, not all of them had had the opportunity to fully implement it in their teaching practice. Some participants, such as P2, cited lack of experience as a reason for not using the flipped classroom approach, while others, like P1 and P4, mentioned partial implementation with occasional use of elements of the method. However, P3 had substantial experience with using the flipped classroom model in their lessons. These findings highlight that while the flipped classroom is a known pedagogical approach, its implementation may vary among educators based on their level of experience and comfort with the method

4.2 Benefits of Using Flipped Classroom Approach

This topic delves into the advantages of employing the flipped classroom approach as perceived by teachers. It comprises one topic which covers the practical benefits from the point of view of teachers and how it can be beneficial for students’ learning process.

According to the findings of this study, the benefits of using the flipped classroom from the point of view of teachers were identified within three main categories: (1) effective use of time to achieve active student engagement; (2) better understanding of the subject matter by students; (3) shifting the role of teachers. This part will explore these benefits in

detail, highlighting what positive impact the flipped classroom model has on teachers' instructional practices and the process of learning.

4.2.1 Effective Use of Time to Achieve Active Student Engagement

The findings of the study revealed that the effective use of time to achieve active engagement of students was a significant benefit of utilizing the flipped classroom approach. Participant provided insights into how time was optimized in various ways, leading to enhanced classroom experiences for both teachers and students.

One participant (P1) highlighted that time was often wasted on explanation in traditional classrooms, whereas in the flipped classroom, time was allocated to different activities, games, and consolidation of the material. As it was said by P1: "You do not spend time on the explanation of the subject, ... and you can spend time on consolidation, games and different quizzes." This allowed P1 for a more engaging and interactive classroom environment, where students were actively involved in different kinds of activities.

Another participant (P3) noted that the flipped classroom approach provided more opportunities for hands-on activities and discussions, which further facilitated student engagement and motivation. As P3 noted: "We had more hands-on activities and discussions." This is also an indication of the fact that the teacher had a wider variety of activities to choose from when planning the lesson. Additionally, the participant highlighted that the use of open-ended questions in class led to deeper answers from students, promoting critical thinking and higher order cognitive skills. P3 explained: "I had more time to ask students more open questions and get more precise answers [during the lesson]." This indicates that the flipped classroom model created a conducive environment for meaningful discussions and interactions, resulting in more effective use of classroom time.

Furthermore, another participant (P4) pointed out that students came to class prepared in the flipped classroom, having already reviewed the material of the day at home. As it was said by P4: “Students came to classes having learned the material that I had given them beforehand and we started working.” This enabled them the next day to start working on the material immediately without wasting time on repetitive explanations. Additionally, the participant mentioned that students came to class with specific questions on areas they needed further clarification. In particular P4 said: “...now students will have to ask the teacher what they did not understand here, had a trouble comprehending.” This allowed the teacher to address those concerns directly, leading to more efficient use of class time and explaining the content that students may find more challenging to understand by themselves. To sum up, the findings of the study revealed that the flipped classroom approach facilitated effective use of time in several ways. These included the utilization of class time for various activities, games, and consolidation; increased opportunities for practical work and discussions; and the elimination of repetitive explanations allowing focusing on more challenging content instead. Furthermore, students’ preparedness and ability to ask specific questions demonstrated that the flipped classroom model allowed for more efficient use of time, leading to improved classroom experiences and enhanced student learning outcomes.

4.2.2 Better Understanding of the Subject Matter by Students

Another important benefit of implementing the flipped classroom, as it was revealed during interviews, was the improvement of students’ understanding of the topic which allowed teachers to incorporate higher-level assignments into their teaching practice as well as being able to go deeper into the topic of the lesson when explaining it after students have learned the basics at home.

As it was highlighted by P1: "... [students prepare about the general concept at home and] then you can explain the topic in more depth [in the classroom]." This indicates that the use of the flipped classroom approach allows teachers to explain the topic in greater depth, as students are expected to learn easier notions on their own through pre-class assignments. It also shows that this approach enables teachers to move beyond superficial coverage of the topic during in-class lectures and engage in more in-depth discussions and clarifications.

Similarly, P2 reported: "Students understood the topic deeper during the practical work [in class] and it retained better in their brains." This way, by learning about the theory at home and engaging in practical activities in class, students tend to understand the topic in greater depth through the flipped classroom, as they spend more time engaging in guided practical work with the teacher during class time.

Furthermore, it was mentioned by P3: "I saw more engaged and motivated students... And there was an improvement in the understanding of the material for most of the students." This shows that teaching in the flipped classroom environment resulted in an improvement in the level of understanding among students. Students were observed to ask deeper questions and provide answers to more complicated questions in class. This finding suggests that the flipped classroom approach not only enhances students' conceptual understanding but also promotes critical thinking skills.

In summary, it was revealed that the flipped classroom approach can lead to an improved student understanding of the topic. This approach allows teachers to provide in-depth explanations, promote active engagement through guided practical work, and foster critical thinking skills among students.

4.2.3 Shifting the Role of Teachers

One of the essential changes when using the flipped classroom mentioned by the participants was the change of the teacher's role in the classroom and what the teacher becomes responsible for. This chapter explores how the teacher's role shifts from a source of information to a guide and helper in this approach. It also examines the teacher's responsibility in organizing the workflow of the lesson and the importance of their role in practical work.

The findings suggest that the teacher's role changes from a traditional source of information to a guide and helper in the flipped classroom approach. The teacher is no longer the primary source of information, but rather a person who helps those students who have difficulty understanding the topic or have misunderstood some concepts. The teacher becomes more of a supporter and a guide for students, helping them to navigate the content and directing them to the right path. As P3 stated: "My main job was to provide some support, guidance to help my students be successful in their understanding."

In addition to being a guide and helper, the teacher's role in the flipped classroom approach also involves organizing the workflow of the lesson and making the procedure of the lesson as comfortable as possible. The teacher is responsible for choosing the appropriate activities that suit particular lessons and topics and determining the type that works best for students, whether it is individual work, pair work, or group work. It was stated by P4: "I ask students if they understood the tasks generally, and explain them shortly and clearly the most essential moments of the lesson, and then we start working and doing the activity whether is individual, in pairs or in groups."

Furthermore, the findings suggest that the teacher's role in the practical work of the flipped classroom approach is very important. While students learn the content for the next

class at home, the teacher helps them to apply that knowledge in practical activities. As it was stated by P2: “Practice is always difficult ... so here the role of the teacher is essential.”

In conclusion, according to the findings the teacher’s role while using the flipped classroom changes from a traditional supplier of information to an assistant, organizer and observer in students’ journey of learning the new concept. The responsibilities of the teacher become to organize the workflow of the lesson and make the process of learning and practicing more compatible with students’ needs. Moreover, this way the role of a teacher during the practical work in a flipped classroom becomes more significant and it becomes an essential part of ensuring that students achieve their learning objectives.

4.3 Challenges of Using Flipped Classroom Approach

Among the difficulties mentioned in the interviews, there are three main challenges that every participant agreed upon. Specifically, they are: (1) limited usage of flipped classroom approach, (2) student adaptation to flipped classroom, and (3) extra work for teachers to prepare for lessons.

4.3.1 Limited Usage of Flipped Classroom Approach

This chapter explores the limitations and challenges of the flipped classroom, as reported by participants. It was pointed out by the P1 that the flipped classroom approach is not suitable for all topics. P1 said: “You cannot use it [flipped classroom approach] always. Some topics are not compatible with the flipped classroom, especially with difficult themes which students will not understand if they read it [for the first time] themselves.” As we can see, some topics may require direct instructions, hands-on activities, immediate feedback from the teacher, or in-depth explanation, which may not be possible in the flipped classroom format.

Participant 2 also identified a significant challenge associated with the flipped classroom approach. As it was mentioned by P2: “Not all learners have access to the technology and resources needed to participate in the flipped classroom.” This statement highlights the importance of equitable access to technology and resources for all learners, which may be a significant challenge in some contexts.

Another challenge associated with the flipped classroom is the potential for learners to become disinterested in the topic because of the instructional materials provided before class sessions. As P3 explained: “Some learners may not be motivated to engage with the pre-class materials, which can negatively impact their learning outcomes.” This statement underscores the importance of ensuring that pre-class materials are engaging and relevant to learners, as well as the need for ongoing support and encouragement from teachers.

To sum up, as identified by participants, there are significant limitations and challenges associated with the flipped classroom teaching approach. These challenges include the suitability of topics for the approach, equitable access to technology and resources, and potential loss of interest in the topic if the materials provided to prepare for the class are not engaging.

4.3.2 Student Adaptation to Flipped Classroom

This section focuses on the topic of student adaptation flipped classroom, as viewed from the perspective of teachers.

Participants highlighted the challenge of student adaptation to the flipped classroom approach. According to P3: “It is difficult for students to adapt to a new way of teaching.” This is because students are used to the traditional lecture-style approach, and the flipped classroom requires them to take on more responsibility for their learning. P2 and P4 stated that: “students are lazy and do not prepare for classes.”

The lack of preparation by students can be attributed to various factors, including distractions from social media and other sources. According to P2: “There are many distractions for students like social media [that take away time from learning].” With social media being a major part of students’ lives, it can be challenging for them to stay focused on their learning tasks. Additionally, P4 stated: “It is difficult for students to adapt to changes in teaching style.” This highlights the importance of providing adequate support and guidance to students during the transition to a flipped classroom approach.

The perspectives of the participants in this chapter have shed light on the challenges of student adaptation in a flipped classroom. While some students may struggle to adapt, it is important to take into account their needs including addressing factors such as distractions and providing resources to aid their learning.

4.3.3 Extra Work for Teachers to Prepare for Lessons

As was revealed in this study, teaching in a flipped classroom also requires extra work for teachers to ensure its successful implementation. This section examines teachers’ challenges in developing engaging activities and preparing of detailed lesson plans and materials.

It was noted by P1 that there is difficulty in developing engaging activities in flipped classroom approach, stating: “It is difficult to always come up with different interesting and engaging activities.” From this comment we can see that besides having a positive impact on students’ participation and engagement the implementation of the flipped classroom calls for teachers to be creative and adapt to the needs and interests of their students to ensure that the in-class activities are engaging and relevant.

In addition to developing engaging activities, teachers must also prepare precise and detailed lesson plans to ensure proper lesson delivery in flipped classroom approach. P3

highlighted this challenge, stating: “Teachers have to prepare a precise and detailed lesson plan so that lessons will be taught properly” and “teachers have to prepare all the material needed for the lesson.” This process can be time-consuming and requires careful planning to ensure that the in-class activities align with the online learning content. Teachers must also be prepared to troubleshoot technical issues and address questions and concerns from students who may struggle with the online learning component. This is because the flipped classroom approach relies on technology a lot and technical problems may prevent learning and lead to losing time dealing with technical issues rather than focusing on learning.

To sum up, it can be seen from the above-mentioned statements that a successful implementation of the flipped classroom approach requires extra work and careful planning from teachers. Developing engaging activities that complement the online learning experience and preparing precise and detailed lesson plans and materials are essential components of this approach. By understanding these challenges, educators can develop strategies to support teachers and enhance the quality of education for all students.

5. Discussion

The aim of this qualitative study was to examine the perspectives of secondary school teacher on the Flipped classroom approach, including its advantages and difficulties. The preceding section presented the primary discoveries of this research, which revealed the attitudes, beliefs, and concerns of educators about the Flipped classroom approach. The participants' understanding of the benefits and challenges associated with the Flipped classroom approach were discussed in depth.

This chapter offers an interpretation and clarification of the aforementioned findings. Furthermore, it compares the outcomes of this research to those reported in the literature review. The discussion section is organized into three categories that correspond to the study's research questions: (1) Teacher views on the Flipped classroom approach, (2) Benefits of employing the Flipped classroom, and (3) Challenges of employing the Flipped classroom.

5.1 Teacher Views on the Flipped Classroom Approach

Findings of this study indicate that teachers have a generally positive attitude towards the flipped classroom approach. Teachers acknowledged the potential of the approach to enhance students' learning experience and engagement with the subject matter. In line with the literature (Butt, 2014), the teachers in this study reported that students demonstrated a greater interest in the subject matter when the flipped classroom approach was used. The teachers also recognized that the flipped classroom approach helped to shift that focus of the learning process from the teacher to the student. In this way, teachers played the role of facilitators, providing guidance and feedback, rather than being the primary source of information (Fadel, 2022).

Despite the positive views of teachers towards the flipped classroom approach, some concerns were also expressed. Some teachers noted that the implementation of the flipped

classroom method required a significant amount of time and effort to prepare the materials and activities for students. They also highlighted the need for students to have access to appropriate resources and technology to fully benefit from the approach. Additionally, some teachers expressed concerns about the suitability of the flipped classroom technique for all types of learners, particularly those who may struggle with self-directed learning. These concerns suggest the need for careful planning and preparation when implementing the flipped classroom approach.

In sum, when investigating the views of teachers in the flipped classroom approach, it was revealed that teachers have a favorable opinion of the approach and acknowledge that it enables students to engage in collaborative activities, which improves their critical thinking and problem-solving abilities. The literature also supports the effectiveness of the flipped classroom method in enhancing student learning outcomes, but there are potential difficulties associated with the teaching method, such as technology access and students' responsibility for their learning.

5.2 Benefits of Employing the Flipped Classroom Approach

This sector explores benefits of employing the flipped classroom model, as reported in the literature and from the findings of revealed during this study. Specifically, we discuss how this approach enables effective use of time, improvement of understanding of the subject matter, and shifting the role of a teacher during learning process.

One of the most significant benefits of the implementation of the flipped classroom is the improvement of the effectiveness of time usage. As it was noted by Fadel (2022), students who studied in a flipped classroom spent more time focusing on important ideas, rather than just going through the surface of the basic information. Additionally, this approach allowed students to learn the subject in more depth. The findings of this study also support this view. As it was noted by the participants, when the flipped classroom is implemented, it allowed

them to spend more time on tasks that required higher-order thinking and problem-solving skills. This finding is also consistent with Fadel (2022) who noted that the approach promotes active learning and critical thinking.

Another benefit of implementing the flipped classroom is the fact that it is an effective way to improve students' understanding of the subject matter. Sams and Bergmann (2012) argued that this approach allows teachers to spend more in-class time on discussions and practical activities, which can lead to a better understanding of the content of the lesson. Furthermore, by moving lectures outside of the classroom, students can watch videos or read materials at their own pace and convenience. Our study participants reported that they appreciated this flexibility, as they could come to the videos multiple times and pause and rewind them when needed. This allowed them to comprehend the content better and it was more comfortable.

In addition, our study found out that the flipped classroom method encouraged students to be more engaged with the subject matter. Participants reported that students felt more motivated and interested in the subject when studying in this way of teaching, which is consistent with Butt's (2014) findings. Most of the teachers said that students showed a greater interest, which may be due to the approach's interactive and engaging nature.

Moreover, our findings also suggest that the flipped classroom approach can improve students' critical thinking skills. Participants reported that students were encouraged to think more deeply about the topic and the content of the lesson and could practice the knowledge to real-world scenarios. This finding is in line with the views of Tucker (2012), who noted that teachers could include tasks of higher-order thinking, such as note-taking and preparing questions in the topic based on their own experience with the material learned beforehand.

The flipped classroom approach has also been found to play a significant role in turning the nature of learning process from being teacher-centered where students were just the recipients of the information. As Fadel (2022) noted that this approach allows teachers to move away from the traditional “sage on the stage” model of teaching towards a more student-centered approach. In our study, participants reported that the flipped classroom approach encouraged them to let the students take more responsibility for their learning and made the learning process more individualized to their needs.

The teachers in our study noted that they were no longer just delivering content but also guiding and facilitating discussions, helping students to apply their knowledge to the real-world situations and providing individualized support. Ozdamli and Asiksoy (2016) found similar results in their study and argued that the flipped classroom approach allows teachers to focus on developing critical thinking skills, problem-solving, and collaboration among students.

Moreover, our study participants reported that the flipped classroom approach helped them to develop a more positive relationship with their students. They felt that they were more approachable and available to their students when they needed support, which is consistent with Danker’s (2015) findings. Teachers who use the flipped classroom approach are seen as facilitators and guides, rather than authorities, which can foster a more collaborative and positive relationship between the teacher and students.

To sum up, the flipped classroom approach can be a main reason for shifting the role of the teacher as a primary source for students to the role of a learning assistant and a guide. This approach can foster critical thinking skills, problem solving, and collaboration not only among students but also between the teacher and students. This way it encourages a more

positive teacher-student relationship and, in addition to that, it also promotes active and student-centered learning

5.3 Challenges of Employing the Flipped Classroom Approach

Apart from being a promising teaching method with huge potential benefits, flipped classroom approach also presents several challenges that were revealed during the course of this investigation that were in line the difficulties reported in the literature concerning with this topic. This part of the discussion chapter is focused on reporting identified challenges connected with this teaching approach, focusing on the following three aspects: limitations of usage of the teaching method, difficulties in students' adaptation, and the amount of extra work loaded to teachers apart from their current duties.

One of the primary challenges revealed in this study is the limitation of its usage. This drawback is connected with several aspects reported both by the participants of this study and studies conducted previously on this subject.

The first limitation of this teaching approach is the fact that it is not suitable for all topics and all subjects. As it was mentioned previously by the participants of this study that it is impossible to implement flipped classroom teaching style into all-time basis due to the fact that many topics in the curriculum needs an explicit explanation from the teacher and it should be ensured that the student understood the notions in a proper way. This finding is consistent with the findings of Butt (2014), who reported that students find it challenging to understand new topics without the assistance of a teacher. Furthermore, the flipped classroom approach may not be effective to certain subjects where hands-on experience and in-person guidance are an essential part of the learning process. This limitation can pose a significant challenge for teachers who want to incorporate the flipped classroom approach into their

teaching, as it requires careful consideration of the topics and the learning objectives to ensure that the approach is appropriate and suits students' needs.

In order to find a solution this limitation, teachers may need to develop strategies that combine both traditional classroom methods and flipped classroom. This can involve using the flipped classroom for some topics while using other methods for more challenging and complicated subjects. Teachers can also consider providing students with additional support outside of the class, such as one-on-one sessions, to help them better understand difficult topics. These strategies can help to ensure that the flipped classroom is use effectively and that students receive the necessary support and guidance to succeed.

Another challenge reported by the participants of this study and were found in the findings of the previous investigations about the implementation of this approach is connected with the difficulties experienced by students when adopting to a new way of teaching. As it was revealed there are several factors influencing an effective incorporation of this teaching style into the teaching practice so that it would be painless for students to adapt.

To begin with, as it was reported by the participants of this study, their students found it difficult to get used to carry the responsibility for their learning as they were used to being taught in a traditional lecture-style approach. Some participants even said that while teaching in a flipped classroom students tend to be lazy and not prepare for classes as they were expected to do it themselves at home. Similarly, in the study conducted on the same topic findings showed that it is more difficult for students to adapt to these changes and be on their own (Butt, 2014). Another study has revealed that students' level of self-control and ability to organize themselves had a significant impact on their attitude towards the flipped classroom approach as well as their academic success while being taught in this style (Lai and Hwang, 2016). In all of these situations the reasons for students' adaptation difficulties were

attributed to the fact that they had troubles in understanding some complicated topics on their own and also, they were frequently distracted by content-unrelated factors such as social media and other entertainment. As it was revealed, students were unable to keep their attention on the learning process and preparation, thus they were frequently reported as being lazy and oftentimes they came to lessons unprepared.

In addition to that, as it was found in our findings and the literature, there is another factor making it difficult for teachers to successfully incorporate this teaching method into their practices. And this problem is connected with the availability of the technologies for students who are expected to go home and prepare for the upcoming lesson on their own. In one of the studies conducted on this topic it was revealed that teachers' main concerns when implementing this teaching approach were connected with the availability of technology needed for this teaching method (Mujtaba Asad et.al., 2022). The same situation was discovered during our study where participants clearly stated that it would be impossible to teach in this way if students do not have an access to the necessary technology. As it can be clearly seen, the difficulties in students' adaption to this approach are connected not only in terms of being ready mentally but also being prepared with all the equipment necessary for being able to study in this way.

One of the challenges of the implementation of the flipped classroom for teachers mentioned both in literature and by the participants of this study was the fact that the preparation part of this approach is very time-consuming and needs a lot of effort to be spent in order for the teacher to be ready for conducting a lesson using this approach. It was mentioned by one of the participants of this study that it is very difficult for a teacher who has many duties to be taken care of during their work time to spare time to search for a quality material for the upcoming lesson and also develop an engaging and interactive activities to use it in the class with students. This opinion aligns with the findings of the study carried by

Lai and Hwang (2016), who also said that time spent and the amount of work done by the teacher who is teaching in a flipped classroom to prepare an activity for students each lesson and in finding the quality materials for students to learn from during their out-of-class time goes far beyond the actual time and effort that students spend. This view is also found in replies of one of the participants of our study who said that the teacher has to prepare a very detailed lesson plan and a very good quality materials for students each time they are going to teach in a flipped classroom style.

As a result of continuously facing these kinds of difficulties while employing the flipped classroom approach the materials given to students often lack quality, such as pre-recorded video lectures by the teacher (Mujtaba Asad et.al., 2022). In addition to that, as it was revealed in our findings, because of low quality students lose interest in learning the subject. In order to avoid these consequences, teachers need to be trained to develop these kinds of engaging activities.

Overall, while the flipped classroom approach has the potential to enhance student learning outcomes, it also poses several challenges for teachers and its limitations must be taken in to consideration. The findings from the literature on this subject and participant feedback highlight several challenges that teachers face when implementing this approach. The limitations include the need for modern technology and internet access, limited usage due to the compatibility of topics and availability of information, and the extra workload for teachers. Provided that these limitations are taken care of, the flipped classroom approach can be an effective tool for enhancing student learning and engagement.

It is important for teachers to carefully consider the benefits and drawbacks of the flipped classroom teaching style before deciding to implement it in their classroom. Adequate training and support should be provided to teachers to ensure successful implementation of

this approach. Additionally, policymakers and school administrators should consider investing in technology infrastructure and resources to overcome the challenges of limited access to technology and the internet.

Overall, while the flipped classroom approach is not a one-size-fits-all solution, it can be a valuable tool for promoting student-centered learning and improving student outcomes when used appropriately. The limitations of this approach should be acknowledged and addressed to ensure its success in enhancing student learning.

5.4 Summary

This chapter presented the key findings of a research study on the perceptions of teachers towards the flipped classroom approach. The findings were analyzed and compared with existing literature, which revealed several similarities. Teachers' perceptions of the flipped classroom approach varied, with most of them reporting positive benefits. They found that the approach was effective in utilizing time, increasing student engagement, and promoting deeper understanding of the subject content. Additionally, teachers identified the improvement of the quality of time spent in the classroom with the students as a significant advantage of the approach.

The findings of the study also revealed that the flipped classroom approach increased students' awareness of their learning and motivation to learn the subject in greater depth. Teachers reported that the approach developed students' self-study, critical thinking, and problem-solving skills. However, the study's participants did not mention all of the various skills and abilities that the literature has identified as being developed through the flipped classroom approach, indicating a possible lack of awareness.

The most significant finding of the study was that the flipped classroom approach provided students with an individualized learning environment that helped students to learn

the subject on their own and at their own pace. This suggests that these learning need of students may go unnoticed without the implementation of the flipped classroom approach.

Overall, the findings of this study demonstrate that the flipped classroom approach has several benefits for both teachers and students. The approach is effective in utilizing time, increasing student engagement, promoting deeper understanding of the subject content, and developing various skills and abilities in students. These findings are consistent with previous studies on the flipped classroom approach.

The research study revealed that the flipped classroom approach has some limitations and challenges, as reported by the participants. In addition to the benefits of using this approach, the major challenges identified by the participants were the limitations of its usage, difficulties faced by students in adopting this teaching style, and the extra workload for teachers. These challenges are common for both teachers and students, and adaptation is considered one of the biggest problems faced while implementing the flipped classroom approach.

The findings of the study align with those of previous research, which highlight the need for both teachers and students to learn how to work in accordance with the flipped classroom approach and spend extra time preparing for lessons. Most teachers reported a lack of knowledge necessary to facilitate students during the implementation of this approach, indicating that they may still be used to teacher-centered teaching methods or may lack knowledge of the new technology required to implement the flipped classroom approach.

Another challenge identified by the participants was an increased workload for teachers. The participants reported that the additional work required by the flipped classroom approach can be burdensome for teachers who already have many other duties. These

findings suggest that the education system in Kazakhstan may require reformation to meet the needs of modern times, and that change will require ongoing effort.

In conclusion, the flipped classroom approach has both benefits and challenges. Teachers need to be aware of these challenges and adapt their teaching styles to overcome them. Additionally, it is important for the education system to provide teachers and students with the necessary resources and support to successfully implement the flipped classroom approach. With proper implementation and support, the flipped classroom approach has the potential to revolutionize education and improve student learning outcomes.

6. Conclusions

The primary objective of this chapter is to provide a summary of the research findings and offer recommendations for stakeholders. This study aimed to investigate the perceptions of teachers in a secondary school located in a city in the southern part of Kazakhstan about the benefits and challenges of the flipped classroom approach.

This chapter is organized into four sections. The first sections provide a summary of the findings and discussions that are structured around the research questions. The second section offers several recommendations for professional practice, highlighting the importance of teacher training, access to digital resources, and the need for a supportive learning environment. The third section presents the limitation of the study and proposes potential directions for further research. The fourth and final section is dedicated to self-reflection, where I reflect on the experience of conducting the research and writing the dissertation.

6.1 Summary of the Major Findings

Research Question 1: How do teachers perceive the Flipped Classroom Approach?

During this research it was discovered that teachers perceive the flipped classroom approach in various ways, mostly positively, and report many benefits of implementing it into their teaching practice. Their perception was built mainly around these three aspects: the effective use of time, the improvement of the understanding of the subject, and the shift in the role of the teacher when teaching in a flipped classroom. These benefits have been the primary reasons why teachers consider the flipped classroom approach as an effective teaching strategy.

In addition to these benefits, teachers also reported that the flipped classroom enhances student motivation to learn and their level of awareness of their own learning process. This is due to the fact that flipped classroom allows for more individualized learning environment, which allows for more individualized learning environment so that students are able to learn

at their own pace and style. Moreover, it was found that the approach helps to develop a range of essential learning skill and abilities in students, including critical thinking, problem solving, and self-study skills. These skills are considered to be essential for success in the modern world workforce, and the flipped classroom teaching model provides a platform for developing them.

Research Question 2: What are the benefits of using Flipped Classroom Approach?

One of the significant benefits of the flipped classroom approach identified by the teachers was the effective use of time. They reported that the approach allows them to use classroom time more efficiently and productively. By flipping the traditional model of instruction, teachers can use classroom time for student-centered activities, such as discussions, group work, and problem-solving, which enable students to apply the knowledge they have gained from the pre-recorded materials. This approach increases the engagement of the students in the learning process and provides opportunities for them to interact with their peers and teachers, which improves their understanding of the subject.

The second benefit reported by the teachers was an improvement in the quality of understanding of the subject content. They reported that the flipped classroom approach enabled students to gain a deeper understanding of the subject matter as they could review the pre-recorded materials at their own pace and time. This approach allowed students to learn and process the information more thoroughly, leading to a better understanding of the concepts and topics.

The third significant benefit of the flipped classroom approach identified by the teachers was a shift in the role of the teacher. The teachers reported that they became facilitators and mentors rather than just lecturers. They emphasized that the flipped classroom

approach allowed them to focus more on individual student needs, provide more personalized feedback, and establish better communication with students.

Research Question 3: What are the challenges of using Flipped Classroom Approach?

The findings and discussion chapter of the research study also explored the challenges of using the flipped classroom approach. The results revealed that participants reported several challenges related to the implementation of the approach, including limitations in the use of the approach, difficulties in adapting to the new teaching style, and extra workload for both teachers and students.

The challenges faced by teachers and students were similar in nature, with adaptation considered one of the biggest problems. Teachers and students needed to learn how to work in accordance with the new teaching approach and spend their own time preparing for the flipped classroom, which led to exhaustion and stress. Additionally, teachers reported a lack of knowledge necessary to facilitate students during the implementation of the approach, indicating that they may not have been familiar with the new technology or that they were still used to traditional, teacher-centered teaching methods.

Another significant challenge was the increased workload of teachers when employing the flipped classroom approach. Participants stated that the additional work was a burden for teachers who already had many other duties apart from that.

6.2 Recommendations

Considering the findings of the research and related literature several discoveries that were mentioned above motivated me to give the following recommendations to the stakeholders in the field of school education in Kazakhstan. These recommendations can be divided into three main categories in accordance with the receiver of this information to work

on it which are school teachers, administration of the school, and the policymakers and curriculum developers.

The participants of this study mentioned the lack of expertise of the teachers which might be a reason for hindering the implementation of the flipped classroom approach. This view also resonated in the literature where studies on the same subject revealed identical problems. To address this issue my recommendation to school teachers is to participate or organize themselves professional workshops locally on different teaching approaches including the flipped classroom approach, where they could learn about them in more detail and take notes on what elements of these teaching techniques, they could implement into their teaching practice. Afterwards they could do a meeting once every term within their departments discussing the topics they will go through this term and highlight those topics where the flipped classroom can be integrated. This way they and their students will be able to have a first-hand experience of this teaching approach and later it can be easier for them to implement it into their own practice without any adaptation period.

As for the school administration is concerned, I would recommend to reconsider the school timetable for teachers and rearrange the subjects in the table so that each department will have a day in a week dedicated solely for professional development where the departments will have meetings, workshops and discussions. The administration members should be assigned to participate in these meetings and listen to suggestions that might be proposed to them from different departments.

Another important suggestion is concerned with the policymakers in the education field and the curriculum developers. I would advise them to reconsider the content and the topics that they assign schools to go through as well as the learning objective they develop for schools to be met at the end of each academic year. They should include there the possibility

to teach using flipped classroom approach and develop the new learning objectives in accordance with the outcomes of the innovative teaching methods and the skill they develop during their implementation.

These recommendations are tentative and directed towards school administrators, policy makers, and educational authorities. It is crucial to note that the outcomes of this research are not meant to be generalized to other secondary schools' teacher populations. This implies that additional research is needed to gain a better understanding of the unique features of the flipped classroom approach in the context of Kazakhstan.

6.3 Limitations and Directions for Future Research

The limitations of this research have implications for further studies. The small sample size of only four teachers from secondary schools in southern Kazakhstan is a significant limitation, suggesting that future studies on the flipped classroom approach should involve a larger and more diverse sample of teachers from different subjects and teaching conditions. Additionally, there is a need to investigate the perceptions of Kazakhstani students on the benefits and challenges of the flipped classroom approach. By examining the perspectives of both teachers and students, researchers can gain a comprehensive understanding of how the flipped classroom approach is implemented in Kazakhstan. Furthermore, since this study was conducted in only one city in southern Kazakhstan, the results cannot be generalized to the entire teacher population of Kazakhstan. Future research should be conducted in different locations taking into account both rural and urban schools throughout the country to gain a more complete understanding of the flipped classroom approach.

This study utilized a qualitative research design, which cannot be generalized to larger populations. Therefore, future research should incorporate a quantitative research design to obtain numerical data and analyze the relationships between variables, including their impact on academic achievement. This type of research would also allow researchers to compare

flipped classroom and traditional classroom groups to examine the effectiveness of the flipped classroom approach on academic achievement.

6.4 Personal Reflection

This study represents my first experience in conducting an empirical investigation, and it has provided a valuable learning opportunity. Prior to this study, I had a general idea of what research entailed, but conducting a qualitative investigation revealed the unexpected and significant data that could be gathered from participants. The investigation's focus on teachers' perceptions and experiences of using the flipped classroom approach proved important, as it led to changes in my own practice, motivated me to further work with the approach, and provided insights into potential improvements in its implementation. In addition, the study is significant because it sheds light on the implementation of the flipped classroom approach within the context of Kazakhstan.

My work on this dissertation also facilitated the development of research skills. I learned to locate literature from various sources, gather data from participants, critically analyze the data, and present findings to an audience. Furthermore, the investigation highlighted the potential positive impact that teachers can have through conducting research in areas where improvements are needed. The most valuable thing that I have understood through doing this research is the fact that policymakers are not the only stakeholders who can effect change; teachers, as individuals working closely with students, can also make a difference. I hope that this investigation will contribute to the improvement of the education system in secondary schools in Kazakhstan.

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Appendices
Appendix A
 INTERVIEW PROTOCOL

Project: “Exploring secondary school teachers’ perceptions of flipped classroom approach in a city of southern Kazakhstan”

Time of Interview:

Date:

Interviewer:

Interviewee:

Interviewer: “The purpose of this study is to explore Kazakhstani secondary school teachers’ perceptions of the Flipped Classroom Approach (FCA). Now I am gathering data about the topic through interviewing teachers who have an experience of practicing FCA in their classroom and want to know what is your opinion and views on this approach and what you can tell about your experience with FCA. All the data from the interview will be recorded to the audio recorder and later will be analyzed with relation to the central phenomena of the research. All the personal information such as your name and the place you work will be confidential, instead of names I will use pseudonyms. The interview will take about 1 hour.”

“Please, read the consent form and you can sign it if you agree with terms and conditions of participation in the research.”

So, I see you have X number of years teaching and Y amount of time using the flipped classroom approach. Now I will ask you some questions about your experience to better understand your perception of it in your teaching practice, okay?

Questions:

1. Please describe your understanding of the flipped classroom approach.
 - a. Describe how you perceive the flipped classroom compared with the traditional classroom.
2. Please would you describe an example of using a flipped classroom model?
 - a. How did teaching this way make you feel?
 - b. How did it make your students feel?
3. What are challenges in adopting FCA into a traditional classroom?
4. What advice would you give for others to save them some time and struggle?
5. What do you think is the biggest success coming from using this approach?
6. What impact did this approach have on your students? Why?
7. How can the Flipped Classroom design and its implementation be improved?
8. Is there anything else you would like to share with me about the flipped classroom or anything else I should know?

Field for notes:

(Thank the individuals for their cooperation and participation in this interview. Assure them of the confidentiality of the responses and the potential for follow-up interviews to confirm their responses and your findings.)

Appendix B

The questionnaire will be given to participants after they contact me to participate in the study before being selected for the interview. The questionnaire will be in Google form format and the link will be sent to each of the participant privately via WhatsApp. The answers will be kept in a table on Google sheets.

QUESTIONNAIRE

Title: “Exploring secondary school teachers’ perceptions of flipped classroom approach in a city in southern Kazakhstan”

Name: _____

Questions:

1. What level of classes do you teach?
 - a. 1-5
 - b. 6-11
2. What branch is your subject?
 - a. Humanities
 - b. Science
 - c. Other
3. How many years have you been teaching?
 - a. 0 years (my first year)
 - b. 1-3 years
 - c. 4-10 years
 - d. 10+ years
4. What is your experience with the flipped classroom approach?
 - a. I have never used it
 - b. I have used some elements of it
 - c. I have used it in my classes
5. Have you used flipped classroom approach for one full term or more?
 - a. No
 - b. Yes, one full term
 - c. Yes, more than one term
6. How many hours a week do you teach? (fill in the blank)

Answer: _____ hours

Appendix C

INFORMED CONSENT FORM

“Exploring Kazakhstani secondary school teachers’ perceptions of flipped classroom approach”

DESCRIPTION: This is an invitation to participate in the present study I am conducting as part of my M.Sc. in Education Leadership program at Nazarbayev University. I would like to provide you with information about the research project. Your participation in this research is entirely voluntary. You may decide not to participate or to withdraw from this study at any time. The purpose of this study is to explore Kazakhstani secondary school teachers’ perceptions and implementations of flipped classroom approach. Through your participation, I hope to find out how Kazakhstani teachers understand the notion of flipped classroom model and what are their experiences in implementing this approach.

TIME INVOLVEMENT AND FORMAT: This research will involve your participation in a one-on-one online interview via Zoom that will take about one hour, with a follow up interview if this is necessary. You will be asked a series of questions about your view and perception of the flipped classroom model and what is your experience of using this approach in your classroom. If you do not wish to answer any of the questions during the interview, you are free to do so and the interview will move on to the next question. I hope you will have no issues with me recording the interview in order to collect the data for later analysis.

RISKS: There are no known or anticipated risks to you as a participant in this study. However, there is still a chance of the data to be stolen or the personal computer of the researcher being hacked, which are highly unlikely. To avoid this scenario precautionary measures will be taken to protect the data such as setting a password to the computer and also to the folder on Google drive containing the data along with using pseudonyms and coding for schools in case of data leakage.

ANONYMITY AND CONFIDENTIALITY: Gathered information will be used in writing a qualitative research report, which will be read by researcher’s supervisor. However, some excerpts from the interview will be included in the final research report, your name and other identifying information will be kept anonymous. Pseudonyms will be used to protect your anonymity. The information gained from the interview will only be used for the above aims, will not be used for any other purposes and will not be recorded in excess of what is required. Your name and institution will not be identified with any data reported. The information

recorded is confidential, and no one else except me will have access to the files. All the data gathered will be kept for three years and then be deleted permanently.

BENEFITS: Your participation will potentially contribute to a better understanding of the role and perception of teachers of flipped classroom approach in Kazakhstan and how the implementation can be beneficial. You will have a chance to speak out and share your point of view and to be heard by those who are in power. Also, it is a great opportunity to make contribution to improving the current situation of the education system of Kazakhstan by helping to understand what is a flipped classroom from the inside and sharing your experiences and thoughts on the approach. Another benefit is the fact that your point of view can be an essential part of preparation for those teachers who are willing to use it and also for pre-service teachers to be aware of the threats they might want to avoid before implementing the flipped classroom approach.

PARTICIPANT'S RIGHTS: If you have read this this form and decided to participate in this study, please be informed that you may withdraw from the study at any time without giving reasons without any consequences for you. You have the right to refuse to answer to any questions that you do not want to answer.

CONTACT INFORMATION: If you have any questions regarding this study or would like any additional information, please do not hesitate to contact me at any time or my Master's Thesis Supervisor Associate Professor Anna CohenMiller, anna.cohenmiller@nu.edu.kz, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact NUGSE Research Committee 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 give permission for my interview to be recorded;
- I understand how the data collected will be used, and that any confidential information will be seen only by the researcher and will not be revealed to anyone else;
- I understand that I am free to withdraw from the study at any time without giving a reason;

• With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

Signature: _____ Date: _____

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