

Title: Comparing the experience of Kazakhstani teachers before and during
COVID-19 pandemic

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Summary of the changes made

The comments of the advisor throughout the paper were considered and issues were fixed.

I changed the title of the research.

The paragraphs about age groups were renamed and expanded by adding more examples from the interviews. Also, the structure of the paragraphs like “preference between two modes” was changed.

In literature review, I made a lot of small changes according to the comments.

The part “placing the experience of Kazakhstani teachers intro global arena” was deleted, because the information about global situation cannot be seen as something uniform as the situation was different for every country.

I added more details to the conclusion.

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Abstract

Global COVID-19 pandemic forced the world to change. This affected various institutions including educational ones. The current research is focused on the comparison of the teaching experience of Kazakhstani school teachers before and during pandemic starting from March 2020 until May 2021 while teaching was completely distant. The aim of the research is to study the response of the local teachers and through using grounded theory as a method, to propose an original theory about the COVID-19 situation using teachers' viewpoint. The data was collected through individual semi-structured interviews with 12 teachers of different subjects including math, physics, English language, Kazakh language, and biology in schools. According to the results, the age of the teacher is an important factor that affected the process of adaptation to online teaching and its hardships, estimation of the effectiveness of pre- and during pandemic teaching, preference of methods of teaching. The older was the teacher, the more traditional ways like textbooks and offline teaching were preferred. The younger was a teacher, the more digital and creative were methods of teaching such as games, competitions, group works, Youtube, and online teaching were applied. It was also established that adaptation of teachers of STEM subjects was harder than for teachers of languages because of the need to compensate the absence of laboratory works in physics and biology classes during online teaching lack of variety of methods of delivering. Finally, it was found that the main obstacles faced during shifting to distance teaching are lack of support from school administration, issues with separating work and family, social pressure, lack of motivation, stress, caused by mostly social triggers.

Introduction

Global COVID-19 pandemic had and still having its massive effects on educational process, that affects both educators and students (Mishra et al. 2020). It pushed educational system to rapidly adapt to new conditions and develop immediate solutions like shift to online mode of education (Mishra et al. 2020; Bao 2020; Bryson and Andres 2020; Velle et al. 2020). The experience throughout the world and different educational institutions varies. One of the reasons is that the response from the teacher's side was different from place to place. The current study aims to study the response of the Kazakhstani teachers to lockdown policy and distance learning mode. Moreover, it is targeted to compare the experience of the teachers before and during COVID-19 pandemic. The theoretical framework of the study revolves around grounded theory first initiated by Glaser and Strauss in 1960s (Bryant and Charmaz, 2007). According to Charmaz and Belgrave (2015), grounded theory method is based on starting to analyze the data collected and coming to explanatory theory. Data collection for the research was conducted through semi-structured interviews with teachers and after the analysis of the information, the theory about teacher experience during pandemic was constructed.

The research population of the project are teachers at state schools with total working experience of at least 4 years. This requirement should be followed, because in this case the teacher would have at least 2-year experience before and 2-year experience of teaching during the pandemic.

As a method of the qualitative research semi-structured interviews were chosen, owing to the fact that they allow variability and individual approach to the interviewee. In other words, when conducting semi-structured interview, if the respondent has some information not considered by the questions of the initial interview, that information can also be added during data collection process. Another reason for using such method is because every interviewee has his own individual experience that can be totally different from other teacher's. Therefore,

developing one structured interview would be inefficient due to its being too narrow to cover all possible aspects of various teaching experiences.

The theoretical framework for the project would be constructed around grounded theory that was first introduced by Glaser and Strauss. The theory rests upon the idea that the research begins with data collection process, and at the end there is explanatory theory developed out of the data analysis. In case of this particular research, the theory would be made up from the results of analyzing the interviews with teachers.

The topic of the study is relevant to the COVID-19 pandemic situation from March 2020 to May 2021 of the world because it helps to better understand the experience of the teachers during shift from offline to online teaching. The research has social and academic importance because the results of the study would contribute to the body of literature about the effects of pandemic to the learning and teaching processes. Moreover, it may help to better understand future directions for improving educational processes.

Literature review

Distance learning includes various methods of using technology including the use of software and devices like computers, laptops, phones, television, radio, and so on. Depending on the level of income of the country, the percentage of the combination of online video sessions (both synchronous and asynchronous) and broadcasting through television and radio differs (Tadesse and Muluye, 2020). Specifically, the more technologically developed the country is, the higher is percentage of the students and teachers conducting their lessons online and vice versa (Tadesse and Muluye, 2020). Of course, it should also be considered that the opportunity to give knowledge through broadcasting on television and radio is possible only for students in elementary, middle, and high schools and does not apply to students in higher and specialized institutions, because their curriculum is highly specific, and dedicated to limited amount of

people. On the other hand, school curriculum is almost the same in different schools, and broadcasting through television or radio can cover huge number of school students (Maphosa, 2020). Students and faculty at higher institutions operate on the principle of online learning and active use of online platforms to share information, conduct assessments, and monitor the assessment system. These platforms include reliable and most common platforms (approved by the choice of many educational institutions) such as Moodle, Google Classroom and Blackboard (Maphosa, 2020).

Recent studies from different authors show that they all agree that the situation associated with digital infrastructure and technological literacy among the population is an important aspect for conducting quality education (Debes 2021, Maphosa 2021, Barrot et al 2021, Tadesse and Muluye, 2020). In addition to general statistics, from which we know that developing countries have more scarce resources to conduct online lessons and provide quality knowledge, there is also a need to consider the internal situation of the country, because the situation there also varies greatly (Tadesse and Muluye, 2020). As study from the Khalif and Salha (2020) states, the educational process in the developing countries such as Palestine, Libya and Afghanistan, report that the difference in obtaining knowledge was also tangible within the classroom, since technological support directly depended on the state of preparedness of the students' parents. Consequently, this led to the fact that learning could occur unevenly, and the knowledge gained in the classroom could differ among students (Khalif and Salha, 2020).

In addition, problems of distance learning include several other problems that are not evident at the first examination. Recent studies by Barrot et al 2021, have shown that distance learning had a negative impact on the mental health of students, resulting in absent-mindedness/inattention during lessons. The reasons for the appearance of these changes in the behavior of students vary, however, the main reasons are considered to be social isolation, inaccuracies in the curriculum, economic instability, as well as problems or constant conversations about the health of oneself and others (Barrot et al., 2021). Among other reasons,

isolation, which has led to minimal communication and interaction among students, is noted as a particularly depressing consequence of online learning. The deterioration in the quality of practical education among students in technical-science faculties was also affected, because access to laboratory work with university technological uniforms either was eliminated from the curriculum or was carried out as a demonstration only (Barrot et al., 2021).

E-learning tools, according to Alqahtani and Rajkhan (2020), facilitate knowledge sharing among teachers and students, and boost communications networks, which leads to a greater overall performance of knowledge sharing. Though, it can be noted that online education provides greater advantages for students. Prior to the pandemic, developing countries that were hesitant to move to online learning began to push schools to implement more effective and creative learning solutions to adapt to the COVID-19 pandemic situation. However, it is clear that the successful implementation of the online education at some part depends on the ability of students and teachers to interact with the benefits of distance learning. In other words, their ability to use tools for online learning, such as multimedia materials that are replete with information, which enables them to expand the knowledge of students and even teachers, as well as make it easier for teachers to provide information (Maphosa 2021). This kind of learning is very different from the offline classroom-based way of learning. Students will learn independence, critical thinking, and the search for additional information. (Salajegheh et al. 2016).

It was established that immediate adaptation to social changes not only created challenges, but also presented some opportunities (Carrillo and Flores 2020; Best and MacGregor 2015; Bryson and Andres 2020; Velle et al. 2020). However, the challenges of fast adaptation outnumber the opportunities and they were discussed in a number of the case studies that will be presented later in the current literature review.

According to Carrillo and Flores (2020) literature review, so called “emergency eLearning”, which is a term that they use for the rapidly developed way of teaching online,

pushes teachers to go deeper and develop more profound ways of distance teaching. In other words, pedagogy should focus on how new tools like internet, virtual classes, blogs, social media, etc. could be used more effectively for improving educational process. In sum, pandemic “showed the way” for the teaching processes to develop. Similar conclusion was made by Velle et al. (2020) in the case study in England with initial teacher education: shift to online mode helped to better understand what is indeed needed for the educational process and what could be omitted. This could suggest future improvement in the education after going back to face-to-face classes (if that happens). Argument supporting such idea was also presented by Bryson and Andres 2020. They believe that shift to fully online and blended education should be viewed as an opportunity for the development of teaching methods.

Another opportunity of distance learning, according to Best and MacGregor 2015, online mode is effective because of its being independent of the location. In other words, there is no need for the educator and student to be in one place simultaneously as long as they have connection through technologies. This is convenient in a sense that the teacher and students do not have to spend time on their travel to the place of the meeting. On the other hand, this means that the lesson is totally dependent on the technology and internet connection. If the tool like computer or phone is damaged, or there are some connectivity issues, then the lesson cannot be conducted. This dependence is the weakness of distance learning. The paper was written in 2015 before COVID-19 outbreak and is focused on the general idea of remote learning. Nevertheless, it could be used for creating the picture of online learning in general.

The growing body of literature suggests the negative sides of online learning and connect it to the rapidness of the shift (Bao 2020; Bryson and Andres 2020; Carrillo and Flores 2020; Mishra et al. 2020; Velle et al. 2020). In other words, it is not so that distance learning is worse than traditional one, or it is bad by itself, it is about the unpreparedness of the society, technological logistics, students, teachers, and other participants of the distance learning (Bao 2020; Bryson and Andres 2020; Mishra et al. 2020; Velle et al. 2020). Even though students and

teachers accepted new forced regime, lack of communication and face-to-face interaction played its negative role and created some issues. (Bryson and Andres, 2020). Instructors have to demonstrate non-verbal cues like facial expressions, gestures, and voice tone even harder so that the students could get them correctly (Bryson and Andres, 2020). This is what teachers must adapt to and what could be a potential cause of the following issue. Not all instructors are good at being on camera and presenting effectively, and therefore for some professionals it could be problematic (Comas-Quinn, 2011). This may also lead to the problems with attention grabbing. In other words, it becomes harder to get student attention when teacher is on the screen of the computer than if the teacher and students would be in one classroom.

Another source of issues is provision. Even though some people have access to stable internet connection and laptops or personal computers, there are still layers of people who have issues with being online. Moreover, some of the teachers are not trained enough to lead lessons online. There is a consequence of the lack of experience with computer and platforms like Zoom (Bryson and Andres, 2020). Learning to properly use the technologies requires some time, and this postpones high-quality educational process for students. It makes teacher's experience more stressful, because besides leading the class, they also have to control if they are using the technology right and everything is working.

Another effect of moving to online teaching is the shift of teacher's role. If previously teacher's role was clearly to instruct, as stated by Carrillo and Flores (2020), during online education instructors became guides, motivators, stimulators, challengers, facilitators, and coordinators, which demonstrates that e-learning requires more self-study and self-discipline from students. With the occurrence of pandemic requirements, it delivered additional stress which also lowered student motivation to be engaged in learning process, and therefore the role of the teachers was expanded to make students learn effectively (Carrillo and Flores, 2020). To sum up, the analysis of the literature with different case studies presents that there are common challenges for teachers as well as opportunities for the development of pedagogy. The

information will be compared with the experience of the Kazakhstani teachers. This will help to better understand the situation of Kazakhstan and make deep comprehensive analysis.

Methodology

The methodology of the research is grounded theory. Grounded theory as a method involves empirical data collection process, coding of the information, theoretical category development and checking, and finally, writing analytic narratives (Charmaz, 2015). The method is useful to apply when already developed theories are not applicable for the research. This method allows the researcher to make original study and come up with his own conclusion and theory based on the research made.

The method depends on the gathering of information regarding the educational process in COVID-19 pandemic situation in Kazakhstan, then analyzing, and after final examinations proposing a theory. In other words, through the help of analyzing of the inductive data, the original theory is modulated (Charmaz, 2018). Considering the COVID-19 pandemic situation occurred in terms of forced transition to online learning as soon as possible, this work takes the information observed through interviews with participants, and based on it, releases its own vision of the situation. Another crucial aspect of why the work is based on the grounded theory is related to the fact that the very fundamental property of the grounded theory is the emergence of the methodological strategy (Charmaz, 2008). The whole concept of the emergence relies on the fact that something unexpected can and sometimes will happen. In this case, the emerging case is associated with the rapidness of the shift from conventional way of studying to e-learning. In addition, the emergence of the case can be linked with rapidly evolving responses of countries to the situation. The researchers who rely on using the grounded theory, uses inductive reasoning, however they should also be able to conduct the research abductively, since the emergent situations require some assumptions to be made (Charmaz, 2008). The same is applied in the

situation presented in the work, where following abductive reasoning the collected data will intuitively be interpreted to support the argument.

The data was collected through conducting interviews online through Zoom meetings. There were only me and the respondent in the meeting. My camera was turned on, but not every respondent agreed to do it too. Out of the 12 interviewees only 5 turned their cameras on. During the interview I asked some additional questions for clarification when needed and made some notes. All of the respondents were interested in the research and contributing to it. This was seen from their active participation in the primary correspondence through messages and further meetings. As it was noticed from the interviews, teachers' interest could be explained by the lack of sharing experience. In other words, teachers were interested whether they were the only ones who faced some issues or vice versa, liked to move to online teaching. This interest made teachers engage in the data collection process actively, as they will get the results of the current research.

Data Collection

Recruitment process was done through webpages with list of teachers who offer their help as teachers. In total, there were 30 professionals selected and sent the recruitment message with an invitation to participate in the research. Out of those, only 18 respondents replied positively and 12 actually participated in the interview. Other 6 people refused to participate at the last moment. Before the actual interview, there was one informal online meeting conducted to establish more trusty relationships with the respondents and answers some of their questions and concerns about risks and confidentiality issues. After the first ice-breaking meeting, the main formal meetings for conducting the interview were done. There were 12 teachers in total and respectively 12 individual interviews were conducted online. The interview questions were translated from English to both Kazakh and Russian languages, because not every teacher knows English well enough. Then, the answers were translated back to English for analyzing and

making quotations whenever needed together with coding. All names were changed for the goals of confidentiality.

The population consists of women only although it was not intended to exclude men. The gender of the population being only women may be explained by the general trend in Kazakhstan according to which teachers are mostly women (<https://data.worldbank.org/indicator/SE.SEC.TCHR.FE.ZS?locations=KZ>). The average age of the population is 38. The ethnicity of the participants was not asked, because it is irrelevant for the research. The population speaks Kazakh and Russian languages.

It should be mentioned that the data is not representative of the situation in Kazakhstan, but only reflects the individual experience of the teachers. In total, these teachers come from different teaching areas. One person teaches biology, two of twelve Kazakh language, the same number is for physics, other remaining 7 teachers are specialists in teaching mathematics and English, four and three respectively. The school level in Kazakhstan contains three periods: junior school, middle school, and high school. The grades from 1st to 4th are categorized as a period of primary school, starting from 5th grade and next 5 years are the part of middle school, and high school finalizes the whole school period containing just two years, 10th and 11th grade. This information is needed to categorize the teachers to find out the age of the students who are under the guidance of a particular respondent. Two of the surveyed teachers are responsible for primary education, while others teach older students. Only one teacher works with only high school students, others can teach high school teenagers and middle-school teenagers who are in the last year of middle school. Interestingly, if in primary school and high school, teachers can work with students that come only from these categories, in middle school teachers are divided into particular grades. If the responsibility of the first person covers only 7th to 9th grade, another teacher might be responsible for 5th and 6th grade. It means that in the country, it is not a frequent case when the primary obligation of the teacher contains the whole middle school-aged students. But it can be the case for primary and high school. This may be due to the fact

that the total course material for middle schools is more complex, and hence teaching from 5 to 9th grades simultaneously is hard.

The main information gathered during the survey is teaching experience of a particular person during and before COVID-19 pandemic. This data is highlighted because it then can be correlated with others that can show some meaningful outcomes. The pre pandemic teaching experience variable contains the big range, the smallest being 2 years and the biggest being 17 years. To be exact, only 4 people have before pandemic teaching experience less than 5 years, 5 of the remaining are the most experienced ones, they work in education more than a decade, others are in between 5 and 10.

The population was divided into three categories according to their age, because it was found out that age is an important factor that affected adaptation to online teaching, variability of the teaching methods, and estimation of the effectiveness of online and offline teaching. There were clear patterns connected to age. Hence, the first group contains teachers aged 36-43, next age group 32-34, and the last group 2-5 aged 28-30.

Adaptation to online teaching and obstacles faced

According to the results of the interviews, the trend was established so that the younger was a teacher, the easier it was for her to adapt to new mode of teaching. Easy adaptation means that there were less obstacles faced or not at all. Also, this means that the older was the teacher, the more time it took her to adapt to online teaching. The following passages describe the narratives of the teachers of three different age groups and different amount of pre-pandemic teaching experience respectively. The older ones of the research population have at least 10 years of pre-pandemic teaching. There are 5 of them. 32-34 years old group of three teachers has an experience of pre-pandemic teaching of 7 and 9 years. Finally, the teachers aged 28-30 have an experience of pre-pandemic teaching of 2,3,4, and 5 years.

Teachers aged 36-43

As stated previously, this group has the biggest experience of pre-pandemic teaching. There are 5 people with pre-pandemic working experience of 10, 11, 14, 15, 17 years. According to the statistics of the current research population, this group faced a lot of obstacles while adapting to new mode of teaching. This in turn has led to the longer time of adaptation. According to the results, it took up to three months for this group to adapt to teaching online. Interestingly, Anna, who have been teaching before the pandemic for 15 years, said that she is not fully adapted yet, it is hard for her to deal with the technologies. The least time spent for the adaptation in this group is one month only to confidently use Zoom platform, while in the group aged 28-30 the fastest adaptation happened immediately and in the group with ages 32-34 it took at least two weeks. Such pattern that it is harder for older generation to adapt to using technologies may be explained by the idea that they are mostly used to works offline with papers and hence those teachers have less experience of working with computers than the younger generations have.

When interviewing one of the teachers, Samal with pre-pandemic experience of 11 years, she admitted that her adaptation took 2 months only because her son taught her to effectively use Zoom, Power Point Presentations, and simple Google search. “If my son did not help me, I am sure that I would have no one to patiently teach me to use those things, because I always forget how to work with shared screen and presentations, and I would feel embarrassed to constantly ask for help from my students or other teachers” replied Samal. This also demonstrates that there was lack of support for teachers in terms of helping them to adapt. Hence, they had to rely on outside help like from son.

Another teacher who said that she is still adapting is Anna. To the question why she is still adapting she replied the following: “During my 15 years of experience, of course, I introduced new methods of teaching and some basic tools like presentations. But the thing is that

those processes happened through time, step by step. Therefore, I learned by my pace. But now, when the pandemic began, there was panic and social pressure. We, teachers, had to conduct good quality lessons. Moreover, this Zoom, and ... another tool that I could not use like Classroom...I am still adapting. “From her reply it is clear that it was mentally hard for her. She was adapting to not only using the technologies, but also to live in pandemic situation. When saying those words, Anna’s eyes were filled with teardrops. I could not ignore it, and we had a one-minute break. Then, when I asked why it was emotional for her, she claimed that expectations of the parents and school administration were pressing her morally and this also made it even harder for her to effectively use online tools.

The remaining three teachers’ answers were similar to each other. All of them stated that it became harder to separate work and family. “Previously, when coming home I could be caring mother and loving wife. But now I also need to be a teacher at home. It was hard, because my family did not use to see me as a professional and were not used “share” my attention with other things. I am at home- I do not work, I am immersed into family”. This was said by Dina who has been working as a teacher of math for 14 years before the pandemic began. Another issue raised by Kamila with the pre-pandemic experience of 17 years, was about prioritizing other things. “When there was offline education, I strictly had a schedule like when to prepare for the lesson and when to conduct it. But when I had to teach online, I lacked self-discipline, because there were always other things to do like home chorus or going somewhere like shops, etc”. This example demonstrates that it was not only hard for the students, but also for teachers to stay effective and motivated to teach.

Teachers aged 32-34

There are 3 teachers in this group. Their pre-pandemic teaching experience are 7 and 9 years. It took up to 2 months for this group to adapt to the online mode of teaching. In general, the process was easier than it was for the older group. As one of the respondents, Gulya who is

the teacher of Kazakh language for 9 years before the pandemic, said “I had to get to know Zoom right from the beginning and this was the main problem for me. However, the use of Youtube and Powerpoint Presentation was not new for me”. Moreover, as it was said by Alina, another teacher of Kazakh language for 7 years before the pandemic, “I am good at learning new things, so using Zoom wasn’t problematic for me. However, I had to adjust my schedule, so that I can conduct lessons online. This was hard for me. In general, it took about a month for me to adapt to new online teaching”. The third respondent in the group said “It took me couple of weeks to be good at conducting lessons in Zoom and Google Classroom. Of course, completely new mode of working needs some time to adapt, but it was not problematic for me. I was interested in new way of teaching ...”, “... I cannot say what was harder, sometimes my kids interrupted the lessons, sometimes I misused software, so the issues were small and different”.

From those narratives, it can be seen that teachers aged 32-34 adapted easier. The process of learning new things like Zoom was not as hard as for the older group. Also, it can be presumed that the group is more open to new information. This also makes the process of their adaptation easier and faster. On the other hand, the experience of the teachers of this group, it was still more problematic to adapt to online teaching and took more time than in was for the group aged 28-30 which is described in the following passage.

Teachers aged 28–30

There are 4 teachers of different subjects including biology, math and English in this group. Their pre-pandemic experience varies from 2 to 5 years. The adaptation process was the easiest for this group and respectively the fastest. It is due to the fact that there were very few problems faced when adapting to online teaching. The best adaptation was for Alua, who has pre pandemic teaching experience of 4 years in biology. As she says “I wouldn't say that I really had this adaptation time. It was easy and immediate. I just needed to read basic instructions for zoom, and this was enough for me”. The same information was said by Anar, who has pre pandemic

teaching experience of 3 years in English. She replied that” it took me about a week to adapt, I think my adaptation was easier, because I know English. Information which is not available for people who don’t know English, was available for me. So, I already knew about Zoom before, so maybe this also helped for my adaptation. But of course, technology is not the only source of problems during the shift to online learning. The main problem for me was working from home. Honestly, there was lack of motivation because of the social stress and social pressure and all of those, you know, concerns about our health and relatives. Those things made me stressed and therefore it was just mentally hard for me to be able to motivate my students to learn, because at that moment I understood it was hard for everyone. Therefore, even if I tried to help my students, I thought that I needed that support from other people as well”. Anar’s reply is similar to the ones that were presented by older groups. This shows that problems during shifts were faced not only due to technology and getting to know new stuff like Zoom or Google Classrooms, but the general situation in the country made people stressed, and mentally stressed teachers were having troubles doing their job. This was a significant obstacle for the teachers.

Another example of stress is the reply of the remaining two teachers. One of them stated “I thought that people would start losing their jobs except doctors and delivery services (laughs), because there was a fear that the governmental systems, educational organizations, and all other structures would fall after some time”. During the interview the respondent admitted that it was silly fear which she laughs about, but she also said that at the time when COVID-19 pandemic began, she was in a state of uncertainty because nobody knew what to expect. The second teacher replied “my adaptation was around one week to use Zoom confidently and to get used to work from home. There were some issues because both me and my husband needed laptop, and we adjusted our schedules to work at different times. As I could not change the time of the lessons, he had to work during the times when I did not have lessons, and we had conflicts about it at the beginning...”. This experience demonstrates the issues with lack of technological

provision in the families. However, it was noted only by one respondent, and hence was not considered in the conclusion of the research as it may be an exceptional case.

Benefits and drawbacks of pre-pandemic and during pandemic teaching

Benefits

Pre-pandemic offline teaching and during pandemic online teaching, both have their positive and negative sides. In this section benefits of both methods of teaching will be presented and compared. In general, in pre-pandemic teaching traditional ways of delivering information were through textbooks, Power Point Presentations, and some teachers also used groupworks, individual projects. Teachers of subjects like physics and biology additionally used laboratory work because it's required by the school curriculum. "I am sure that math can best be taught by using textbooks and leveling tasks, therefore offline teaching is required for delivering mathematical topics in good quality". This was said by Kamila, who is the teacher of math. Her idea was also supported by Samal, who is the teacher of physics. She also believes that physics can be taught in the most effective manner by textbooks and laboratory works, and therefore offline teaching is irreplaceable for those subjects. As it was explained by one of the teachers, when you have face to face interaction with students and you explain the topic on the whiteboard, you can also control so that students are following you and writing down the information. "I believe that when students write down by their hand, the information is remembered better. But you cannot do so in online education. This is the strong side of offline education" said one of the respondents. Similarly, most of the teachers agreed that face to face live interaction is required for the teachers to understand that the students are following and understanding the teacher, and getting the information presented.

Coming to the benefits of online teaching, the most mentioned one was the idea that the course material can be reviewed. For example, if during offline education the

teacher presents the information once and then answers the questions, in online education there can be recorded lectures that could be revisited as many times as students need to understand the information. As it was said by Aru, who is a teacher of mathematics with experience of pre-pandemic teaching of 2 years, Google Classroom is much better than using textbooks, because this platform allows to post course material, student's grades, their homework and also allow students to submit their homework. Therefore, the teacher does not have to spend her time on checking the homework during the class time. Another benefit of online learning is that neither teachers nor students have to spend their time on the road to school and back. As it was said by Alua (Biology teacher) "with online education the time that I would spend to travel to school and back... now I can take my time to prepare better for my classes or do my other chores." This demonstrates that some teachers could organize effective time management because of online teaching.

Drawbacks

Just as with the benefits, there are drawbacks of both offline and online education. For example, some teachers consider groupworks in offline education to be ineffective. This is due to the fact that when the groups are organized only half of the group members work, whereas other members procrastinate. This is the pattern that was mentioned by several teachers like Gulya, Aru, Anna and Alua. They believe that giving individual tasks is always more effective. Some teachers like Dina and Samal who are teachers of mathematics and physics respectively believe that there are no negative sides of pre-pandemic offline teaching. Since, as stated previously, they believe that math and physics can only be taught through textbooks, leveling of tasks and face to face interaction. However, Alma who is teacher of English with pre pandemic teaching experience of 10 years believe that one of the main drawbacks of offline teaching is

when there is too much of information, students may forget some parts of it. Therefore, having recorded versions of the lectures or lessons (as it can be done in Zoom) would be more effective. Additionally, Aigul, who is a teacher of math with pre pandemic teaching experience of 5 years, believes that people get bored or tired very easily. This is the main hardship of pre pandemic offline teaching. Therefore, she proposes having small breaks and adding games to keep students engaged with the lesson. Also, the same thing about getting bored was mentioned by Alina, who is a teacher of Kazakh language.

Coming to the drawbacks of online teaching, most of the teachers mentioned that attention grabbing during online teaching became difficult. This was explained by the fact that there is no face-to-face interaction, and it is very hard to control whether every student is really listening or not. As Anna says “There are so many little boxes with the faces of students and some of them do not even turn their cameras on, and I cannot force them to do so. Therefore, it is really hard to look at every face of the child and simultaneously lead the class and explain the topic. This is the main drawback of pandemic teaching”. As Kamila says, “The quality of teaching became very-very low because of online education”. She explained it by the fact that the lessons became shortened in terms of time, also she spends a lot of time organizing her lessons. Essentially, she has to turn on presentations, demonstration of screen and other tools, which is complicated for her, which additionally makes her stressed and nervous. This in turn affects the quality of her delivery of information. Another teacher said that, when she has classes at 8 am, students are falling asleep. This happens because students wake up “5 minutes before the class” and therefore they study lying on their beds. “I cannot force them to wake up and get dressed and sit on their desks. This also irritates me, because I have no control of it. But I know if students would sit in front of their tables, it would be more effective for them”. This shows that teacher’s impact on the students becomes weaker in pandemic teaching.

Preference between two modes and reasons

Out of 12 respondents, only 4 of them would prefer to teach online. Three of them are from the group aged 28-30, and one from the 32-34 age group. All teachers from the group of ages 36-43 uniformly prefer to work offline.

Multitasking

Alina (age 32-34), who estimated the effectiveness of pre-pandemic and pandemic teaching to be 4 and 5 out of 5 respectively, preferred to stay in online teaching. She explained it by the idea that both ways are effective for delivering information, although distance teaching allows to work from home and saves time. “I do not have to worry about my old mother at home while I am teaching online, and this is very precious for me,” said Alina. She teaches Kazakh language and uses “creative tasks”, as she calls it, that involve games, self-study projects, and presentations. For her, those methods can also be applied during online teaching and give positive results. Also, her adaptation was easy and fast. Those factors made online teaching more preferable for her.

For the teachers aged 28-30, the reasons for choosing online teaching were also multitasking. “Of course, it is sometimes hard to separate work and other responsibilities, but once I have understood how to organize my time, I do not want to move to offline teaching again. So online teaching is an opportunity for me to spend time on other things too”.

In pre-pandemic teaching there was strict and clear separation of work, because of concrete time and place of teaching. Even though the pandemic situation vanished the distinction and created adaptation issues, some teachers managed to get their profit from the circumstances.

Live interaction and teaching habits

“I believe that face-to-face live interaction is required. Teacher-student relationships are not just the process of sharing knowledge. There are a lot of psychological aspects of trusty relationships that would help students to understand the topics more effectively because of

friendly atmosphere.” By those words the respondent means that how students feel during the lessons matters for effective management of the information. However, it should also be mentioned that good relationships with the teacher are not enough, because the pandemic situation stresses people, and achieving positive psycho-emotional conditions is not dependent on the teachers only.

Another respondent who did not fully adapt to using online tools said “I am waiting to go back to offline teaching, as it was done for my whole life. This is what I am used to”.

These reasons were the most mentioned by the respondents who prefer to teach offline. They consider live meetings to be the essential part of the teaching process. Also, they are used to teach in traditional offline way, and they are not eager to change their habits.

The role of the type of subject on the hardships of teaching

As it was noticed from, some teachers of STEM believe that it is vital to have live interaction and to use textbooks for explaining topics. This was said by the teachers of math and physics. In addition, some lessons such as biology and physics require practical laboratory works, that needs to be done in the labs under the supervision of the teachers. Quarantine regime made it impossible for the class to gather in one place, and hence it led to absence of the whole laboratory part of the topics which negatively affects the quality of the education.

On the other hand, some English teachers relied on different digital methods even before the pandemic. “I like using Youtube videos, karaoke, and other educational webpages. They deliver the information creatively and raise students’ interest” claimed Anar, the teacher of English language. It can be deduced that after the shift to online education, she managed to keep using the methods described, as they are implemented through the use of the Internet.

Those differences in the methods of teaching demonstrate that the type of subject matters when it comes to the experiences of teachers and hardships faced. As a result, it can be stated

that the adaptation to online teaching and introduction of new teaching methods was more complicated for STEM teachers.

Limitations

The current study has little population, and hence is not representative of the whole situation in Kazakhstan. This is the main limitation of the study. Moreover, due to the fact that the research was conducted online, Zoom interviews may have collected less information than it could be done by live meetings like considering some gestures of the respondents or establishing more trustworthy relationships with the teachers for getting data that is more comprehensive and harder to reach.

Finally, language is another limitation. As the interviews were collected in Kazakh and Russian languages initially, translation and interpretation in English may sometimes be not as exact as it should be.

For further research in the similar topic, it is recommended to expand the population size for getting wider picture of the situation in Kazakhstan. Also, it is recommended to cover other topics through interviews that were not included in the current research. Finally, to make some judgements about the effect (positive or negative) of the pandemic and rapid changes to the quality and methods of school teaching, it is recommended to conduct research several years after the end of pandemic. In this case, by considering pre-pandemic education, studies that compare pre and during pandemic situation, and post-pandemic education, the development of the educational system and its processes can be traced.

Conclusion

The current research made an analysis of the 12 narratives of the Kazakshtani teachers about their working experience before and during COVID-19 pandemic. Different aspects of educational processes including benefits, drawbacks, effective methods and hardships were

discussed. As a result, it was found that there is strong correlation between age and adaptation process, use of new digital technologies, estimation of the effectiveness of different teaching methods. The more experience teachers have before the pandemic, the harder it is to adapt to online teaching, to learn using digital tools, and the more they prefer working offline, because during online education teachers had to adapt not only the methodologies of delivering course information, but they also had to teach themselves how to use internet resources in a thoughtful manner and manage all zoom or other conferences effectively and improve skills of monitoring the digital activity of class members. It was also established that not all of the issues faced by foreign country teachers (example: provision with technologies and access to the Internet) were met by Kazakhstani ones as well. Another finding of the research is that the type of subject being taught is an important factor that determines hardships of adaptation to online teaching. Namely, teachers of STEM subjects faced more difficulties due to the lack of access to laboratories and small variety of effective methods.

The most common obstacles faced during the shift to online education were also established. They are lack of support from school administration that led to problems with adaptation to use of technologies, issues with separating work and family, social pressure (expectation that teachers must conduct high quality lessons), lack of motivation, stress, caused by various triggers including general concerns about health, family issues, rapid changes, and uncertain COVID-19 pandemic situation.

Reference list

- Alqahtani, Ammar Y., and Albraa A. Rajkhan. "E-Learning Critical Success Factors during the COVID-19 Pandemic: A Comprehensive Analysis of e-Learning Managerial Perspectives." *Education Sciences* 10, no. 9 (2020): 216. <https://doi.org/10.3390/educsci10090216>.
- Bao, W. "Covid -19 and Online Teaching in Higher Education: A Case Study of Peking University." *Human Behavior and Emerging Technologies* 2, no. 2 (2020): 113–15. <https://doi.org/10.1002/hbe2.191>.
- Barrot, Jessie S., Ian I. Llenares, and Leo S. del Rosario. "Students' Online Learning Challenges during the Pandemic and How They Cope with Them: The Case of the Philippines." *Education and Information Technologies* 26, no. 6 (2021): 7321–38. <https://doi.org/10.1007/s10639-021-10589-x>.
- Best, M., and D. MacGregor. "Transitioning Design and Technology Education from Physical Classrooms to Virtual Spaces: Implications for Pre-Service Teacher Education." *International Journal of Technology and Design Education* 27, no. 2 (2015): 201–13. <https://doi.org/10.1007/s10798-015-9350-z>.
- Bryant, A., and K. Charmaz. 2012. *The Sage Handbook of Grounded Theory*. London: SAGE.
- Bryson, J. R., and L. Andres. "Covid-19 and Rapid Adoption and Improvisation of Online Teaching: Curating Resources for Extensive versus Intensive Online Learning Experiences." *Journal of Geography in Higher Education* 44, no. 4 (2020): 608–23. <https://doi.org/10.1080/03098265.2020.1807478>.
- Charmaz, Kathy. "Grounded theory as an emergent method." *Handbook of emergent methods* 155 (2008): 172.
- Charmaz, Kathy, and Linda Liska Belgrave. "Thinking about Data with Grounded Theory." *Qualitative Inquiry* 25, no. 8 (2018): 743–53. <https://doi.org/10.1177/1077800418809455>.
- Carrillo, C., and M. A. Flores. "Covid-19 and Teacher Education: A Literature Review of Online Teaching and Learning Practices." *European Journal of Teacher Education* 43, no. 4 (2020): 466–87. <https://doi.org/10.1080/02619768.2020.1821184>.
- Comas-Quinn, A. "Learning to Teach Online or Learning to Become an Online Teacher: An Exploration of Teachers' Experiences in a Blended Learning Course." *ReCALL* 23, no. 3 (2011): 218–32. <https://doi.org/10.1017/s0958344011000152>.
- Debeş, Gülyüz. "Review for 'Higher Education Students' Experiences and Opinion about Distance Learning during the Covid-19 Pandemic.'" *International Journal of Curriculum and Instruction* 13, no. 2 (2021): 1109–18. <https://doi.org/10.1111/jcal.12613/v2/review1>.
- Heath, Helen, and Sarah Cowley. "Developing a Grounded Theory Approach: A Comparison of Glaser and Strauss." *International Journal of Nursing Studies* 41, no. 2 (2004): 141–50. [https://doi.org/10.1016/s0020-7489\(03\)00113-5](https://doi.org/10.1016/s0020-7489(03)00113-5).

- Hesse-Biber, S. N., and P. Leavy. 2010. Essay. In *Handbook of Emergent Methods*. New York: Guilford.
- la Velle, L., S. Newman, C. Montgomery, and D. Hyatt. "Initial Teacher Education in England and the COVID-19 Pandemic: Challenges and Opportunities." *Journal of Education for Teaching* 46, no. 4 (2020): 596–608. <https://doi.org/10.1080/02607476.2020.1803051>.
- Maphosa, Vusumuzi. "Factors Influencing Student's Perceptions towards e-Learning Adoption during COVID-19 Pandemic: A Developing Country Context." *European Journal of Interactive Multimedia and Education* 2, no. 2 (2021). <https://doi.org/10.30935/ejimed/11000>.
- Mishra, L., T. Gupta, and A. Shree. "Online Teaching-Learning in Higher Education during Lockdown Period of COVID-19 Pandemic." *International Journal of Educational Research Open* 1 (2020): 100012. <https://doi.org/10.1016/j.ijedro.2020.100012>.
- Salajegheh, Ali, Alborz Jahangiri, Elliot Dolan-Evans, and Sahar Pakneshan. "A Combination of Traditional Learning and e-Learning Can Be More Effective on Radiological Interpretation Skills in Medical Students: A Pre- and Post-Intervention Study." *BMC Medical Education* 16, no. 1 (2016). <https://doi.org/10.1186/s12909-016-0569-5>.
- "Secondary Education, Teachers (% Female) - Kazakhstan." Data. Accessed April 5, 2022. <https://data.worldbank.org/indicator/SE.SEC.TCHR.FE.ZS?locations=KZ>.
- Tadesse, Seble, and Worku Muluye. "The Impact of Covid-19 Pandemic on Education System in Developing Countries: A Review." *Open Journal of Social Sciences* 08, no. 10 (2020): 159–70. <https://doi.org/10.4236/jss.2020.810011>.
- Zhang, W., Y. Wang, L. Yang, and C. Wang. "Suspending Classes without Stopping Learning: China's Education Emergency Management Policy in the COVID-19 Outbreak." *Journal of Risk and Financial Management* 13, no. 3 (2020): 55. <https://doi.org/10.3390/jrfm13030055>.