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To cite this article: Baurzhan Bokayev , Zulfiya Torebekova , Zhuldyz Davletbayeva & Fatima Zhakypova (2021): Distance learning in Kazakhstan: estimating parents' satisfaction of educational quality during the coronavirus, Technology, Pedagogy and Education, DOI: [10.1080/1475939X.2020.1865192](https://doi.org/10.1080/1475939X.2020.1865192)

To link to this article: <https://doi.org/10.1080/1475939X.2020.1865192>



Published online: 10 Jan 2021.



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Distance learning in Kazakhstan: estimating parents' satisfaction of educational quality during the coronavirus

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ABSTRACT

This article examines the benefits and drawbacks associated with distance/online learning in Kazakhstan during the Covid-19 pandemic. The responses of the 31,300 parents surveyed, as well as in-depth interviews with 65 parents, are used to construct several regression models to better understand how parents perceive the educational quality of distance/online learning in today's circumstances. The regression results show that the age of the parent and the level of family income are positively correlated with the parents' level of satisfaction with the provided distance/online learning, while the number of children in a family is negatively related to the parents' satisfaction with the learning process. The study finds a statistically significant association between parents' satisfaction with the quality of education and their assessment of teachers' competencies, and the level of government readiness to switch to the distance/online learning format.

ARTICLE HISTORY

Received 31 July 2020
Accepted 5 December 2020

KEYWORDS

Distance learning; parents' satisfaction; Covid-19

Introduction

Among the many severe and structural effects of the Covid-19 pandemic, 1.3 billion students and their families, spread among more than half of the world's countries, have had to contend with national mandates to close schools (UNESCO, 2020). Most of the affected countries were forced to switch their education systems, public or private, to distance and online learning in record time. Kazakhstan is no exception. In March 2020, the government of Kazakhstan decided to switch to distance and online learning as part of a quickly implemented social shutdown. Across the country, 131 universities, 801 colleges and 7398 schools switched to distance/online learning (Information and Analytical Center, 2020). Traditionally in Kazakhstan, a long spring break occurs in the school year during the last half of March. This period was used by the education institutions to ready themselves for a switch to distance/online learning, with the transition beginning in early April (Baza Yurist (Lawyer database), 2020a).

Thus, educational institutions' administrations were uniformly faced with the task of ensuring the organisation of the distance/online learning process and making management decisions aimed at improving the quality of teaching. Distance learning involves all educational materials being provided to the student, who then returns them upon completion. Typically, the material is conveyed online, there is no set schedule for classes, and no in-person interactions with the teacher are expected. Meanwhile, online education has students working online at home, with classes held in

real time or recorded and made available online using technological equipment (computer, webcam etc.). Online learning can be used in combination with in-person teaching to produce 'blended' learning. In Kazakhstan, the government empowered schools to have flexible approaches to providing learning materials and education to students: Subject teachers were to adapt their curricula so that they could be disseminated online or through other available communication technologies. Activities such as lessons televised on broadcast networks, creating learning groups on social media, and creating guidance for independent work were among the customised efforts that teachers nationwide put to use to provide educational services. Schools were to report to the government on the success of these efforts, and parents were expected by the government and schools to help create positive learning environments at home and monitor their children's difficulties and successes with keeping up with their work (Baza Yurist (Lawyer database), 2020b).

The transition to distance/online learning quickly had a serious impact on all participants in the educational process. In theory, more than 6 million citizens of Kazakhstan were expected to immediately become active participants in distance/online learning (students, teachers, parents, educational authorities). There was little time to solve the immediate challenges with this transition. In many parts of the country, a lack of access to high-speed Internet at home made the prospect of streaming lessons difficult to realise. This problem was compounded by many students lacking access to electronic technology (such as laptop computers) at home. Furthermore, responses to the survey conducted for this article indicated that many schools – particularly in the countryside – did not have the effective infrastructure to develop and disseminate online lessons. Many teachers and school officials also did not have sufficient technological literacy to produce effective content, or they otherwise had problems with adapting to online teaching.

A special role in the educational process during the pandemic was assigned to parents since they had a double burden – daily professional activities to support the family and oversight of the educational activities of their children. There was no easy solution from parents; working from home promised to be difficult with children – especially young children – to manage, and parents with jobs that could not be done from home had to figure out who could take care of their children during the working day. In Kazakhstan, extended family has traditionally played a significant role in raising the children of working parents. However, the Covid-19 pandemic has put older adults at risk and demanded higher levels of social isolation. All of this puts additional strain on the parents' responsibilities.

A potential positive of online education was the idea that parents would become more familiar with their children's study habits and consequently more able to play a positive role in their learning. For example, children hoping to succeed in online education benefit from being focused and resilient, and evidence shows that parents can substantially support their children's efforts to develop such habits (Liu et al., 2010). This assumes a home where parents are willing and able to promote their children's education. Unfortunately, for many children their home is not a nurturing or safe environment. Around the world, the imposition of social isolation has led to a rise in domestic abuse and family violence (Usher et al., 2020). In these circumstances, parental involvement may not have a positive effect.

A risk, therefore, of the transition to online education is a further disparity between the children of those families that are able and prepared, emotionally or otherwise, to support them, and the children of families who are not. One possible way to gauge the likelihood of positive outcomes is by examining the level of education of parents, as research has shown this factor to have a significant impact on the academic results of children (UNESCO, 2000). Even with the best intentions, parents with lower levels of education face additional obstacles in supporting their children's learning, and an online education environment that may ask parents to be more involved could exacerbate this inequality. An additional question remains whether the Covid-19 pandemic's economic and social effects would deteriorate parents' ability to adjust their level of involvement appropriately in order to provide positive outcomes, and whether this ability would vary based on the education level of the parents.

Research question

- (1) How have parents in Kazakhstan been involved in their children's educational process during the Covid-19 pandemic?
- (2) How satisfied are Kazakhstani parents with the organisation of distance/online learning during the same time period?

Literature review

In recent years, online learning has been widely used around the globe (Beck et al., 2013; Culp et al., 2005). To an extent, the spread of online learning is limited by access to the Internet, communal infrastructure and communal/individual technological resources; where these factors are lacking, families have difficulty in participating in online educational opportunities (Rideout & Katz, 2016).

For much of the time these options have been available, little empirical work on parents' satisfaction with online or distance learning has been done (Beck et al., 2013). Instead, we have various studies that confirm the important role of parents and families in the development and education of children (Durisic & Bunijevac, 2017; Richardson, 2009). Other studies find that parents' general satisfaction with their children's learning is affected by several factors, including parents' education levels, marital status and socio-economic characteristics (Jónsdóttir et al., 2017). Much online learning that takes place has been supplemental to the child's education in a traditional brick-and-mortar school, which means that children enrolled typically would come from families that are willing to go the extra mile to support this extra study, both financially and through learning support. With the events surrounding the 2020 pandemic, this state of affairs has radically changed, and our expectations of what satisfies parents with regards to online learning need to be updated.

Parents' satisfaction with educational services has been mainly associated with parent involvement in school activities, which is then linked to positive educational outcomes (Beck et al., 2013; Laws & Millward, 2001). Studies focusing on the parent's satisfaction with online schooling, where school activities face limitations, find a positive relationship between levels of parent engagement and overall student performance (Beck et al., 2013). They discovered that within an online setting similar to traditional school settings, more parental involvement led to increased satisfaction with school between parents and students.

Parents' involvement in online learning is important to student academic success (Berthelsen & Walker, 2008; Black, 2009). Parental engagement in online learning may include parents helping children to develop learning persistence, study and time management skills (Borup et al., 2013). Parents' interactions with children's online learning correlate with course outcomes, including final grades, perceived learning and course satisfaction (Beck et al., 2013; Borup et al., 2013). Their encouragement, support and overall modelling have a positive effect on student academic achievements (Bogden, 2003; Huerta et al., 2006).

Studies have identified why parents become engaged in their children's studies (Hoover-Dempsey et al., 2005). According to the study results, parents' engagement was influenced by (1) a belief that their engagement is necessary, and this engagement would promote their children's academic success, and (2) a perception of specific invitations from the school, their children or the teacher to be engaged, as well as their knowledge, skills, and available time and energy (Hoover-Dempsey et al., 2005). Another study focused on parental support in online education concludes that parents have three primary responsibilities: to motivate, monitor and mentor their children (Curtis, 2013). Mentoring responsibilities were explained as the parents' concern about their children's welfare and guiding them through online learning activities. With the Covid-19 lockdowns, psychological distress among students was associated with negative perceptions surrounding e-learning and the fear of 'losing' the academic year (Hasan & Bao, 2020).

However, the level of parental support that is effective depends in part on the technological knowledge possessed by parents (Delen et al., 2015). Parents who are able can provide important

instructional support on specific online learning skills, and they can help their children in searching for the information needed (Borup & Stevens, 2016; Hasler Waters, 2012; Lee & Figueroa, 2012; Sorensen, 2012).

With that said, the reality is that many parents lack the content expertise to directly instruct students on specific course material; moreover, parent instruction or coaching might have a negative impact on student academic outcomes (Black, 2009; Delen et al., 2015; Ingram et al., 2014).

To add another dimension, parents are concerned that the use of technology and the Internet enable increased risk of cyberbullying or visiting inappropriate websites (Anastasiades et al., 2008; Delen et al., 2015; Liau et al., 2008; Sorbring, 2014). In addition, parents may not be fully aware of their children's interactivity on the Internet (Beale & Hall, 2007). Thus, studies claim that the safety of children is the most significant predictor of parent satisfaction (Friedman et al., 2007; Tikkanen, 2019).

As can be seen, the level of satisfaction of parents with distance/online learning has already depended on many factors, including the level of involvement of parents in the educational process, children's results, the level of parents' competence in information technology, and finally issues of cybersecurity during teaching.

However, the current research does not yet account for changes in the level of parental satisfaction in emergency situations, such as a pandemic.

Materials and methods

The mixed-method research design was applied in this study to examine issues related to the transformation of the educational process in Kazakhstan and the satisfaction of the parent community with distance/online learning during the pandemic. A survey and in-depth interviews were conducted among parents.

In April 2020, a pan-Kazakhstan survey of parents (aged 18 and older) was carried out using the free online application Google Forms, and a total of 31,300 people participated.

The survey consisted of the following main components:

- (1) socio-demographic characteristics of respondents;
- (2) assessment of the readiness of the education system for distance/online learning;
- (3) assessment of the quality of the educational process;
- (4) assessment of the individual obstacles that parents noted as affecting the educational process.

Representatives from all regions of Kazakhstan took part in the survey. Given that Kazakhstan occupies ninth place in the world by area despite having a population of only 18 million people, regional representation in the sample is important in assessing parents' satisfaction with the quality of distance/online education.

Qualitative interviews were also used in this research. The purpose of these interviews was to improve the validity and reliability of the research based on the results of the previous survey. The goal of data triangulation was pursued here (Denzin, 1978; Morse, 1991). The narrative technique was used to increase the readability of the text as well as the reliability of the results through the alternation of information obtained from the survey and interviews, respectively (Kelley et al., 2003).

Quantitative data was analysed using regression analysis, and qualitative findings underwent coding and manual analysis, since there were 65 interview participants.

To provide more detail on the interview procedure, we must first note that the interview participants were 65 parents that had been selected from the group of survey respondents who indicated their desire to participate in further research. Thus, out of 31,300 people who participated in the online survey, 4401 expressed a desire to participate in the in-depth interview. By using the probability sampling method with systematic sampling type, 65 people were chosen for the in-depth

Table 1. In-depth interview questions.

Nº	Questions	The main goal
1.	How do you understand distance learning, and what conditions are needed for online learning? What disadvantages and advantages can you name?	<i>To assess the overall understanding of distance/online learning during the pandemic.</i>
2.	Do you think it is possible to conduct such a form of education in Kazakhstan under the current conditions? This refers to technical readiness, the speed and quality of available Internet connections and the level of digital education.	<i>To get an opinion on the readiness of Kazakhstan's education system to implement distance/online learning during the pandemic.</i>
3.	Have parents and students been trained to switch to distance learning?	<i>To study the measures taken to switch to distance/online learning during the pandemic.</i>
4.	Are you satisfied with the quality of distance learning in Kazakhstan? What exactly are you satisfied/dissatisfied with?	<i>To evaluate parents' satisfaction with this issue.</i>
5.	How do you assess the level of readiness of teachers to conduct online/distance learning? What parameters do you use to evaluate teachers' readiness?	<i>To assess the level of ICT competence of teachers in Kazakhstan.</i>
6.	What difficulties do you and your child face during distance learning? This refers to technical difficulties, such as the lack of Internet, computer or phone.	<i>To study whether families possess the level of technical equipment needed.</i>
7.	What measures are being taken by the state to support students and teachers who do not have access to Internet resources and computers?	<i>To study the level of school involvement in children's technical access to distance/online learning during the pandemic.</i>
8.	How do your children relate to this type of learning, and does distance learning help to increase students' personal responsibility? Did your children's learning motivation decrease in the absence of a supervising teacher during their studies?	<i>To assess the level of motivation of students during distance/online learning during the pandemic.</i>
9.	Do you think the importance of teachers and schools has increased during distance learning in the context of Covid-19?	<i>To find out what parents think about the role of teachers and schools in the educational process of children.</i>
10.	Do you think it is appropriate to introduce distance learning as a form of traditional learning? For example, some subjects can be taught remotely without going to school.	<i>To evaluate the level of perception of distance/online learning as a form of traditional learning.</i>

interview. Each interview lasted around 45 minutes on average. The in-depth interview consisted of 10 main questions, the goal of which was to understand the level of parents' involvement in their children's educational process, their satisfaction with the quality of education during the pandemic and, finally, to assess the difficulties that they faced in the learning process with their children. [Table 1](#) shows the specific questions that framed all the interviews.

In order to satisfy ethical obligations for academic research, the survey and in-depth interview questions were approved by the researcher committee of the Academy of Public Administration under the President of the Republic of Kazakhstan, and permission to conduct the project was obtained. The participants were informed about the research, and their written consent to participate was obtained.

By using multiple research methods and a sample with participants of different educational attainment and socio-economic characteristics, a more objective analysis of the involvement of parents in the educational process and their satisfaction with the quality of distance/online learning could be conducted.

Results of the study

The initial takeaway from the study is a confirmation of the wholesale transition of nearly all (around 97%) Kazakhstani schools to online/distance learning during the Covid-19 pandemic ([Figure 1](#)).

The pandemic has exposed several problems related to the inability of Kazakhstan's education system to smoothly switch to online/distance education. More impactful than anything else is a lack of material and technological resources. According to the data, students use technological and

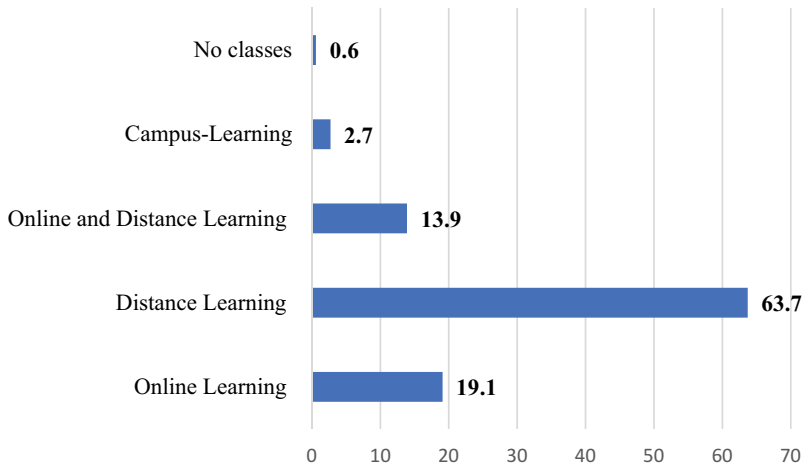


Figure 1. Type of learning.

mobile equipment for learning such as a laptop/computer, TV and cell phone in the educational process. The most actively used technological resources among Kazakhstani students during online/distance learning are cell phone – 45.91% and TV and cell phone – 31.99%. In order to receive online/distance learning, about 21% have access to a laptop or a computer they can use regularly. As a result, about 78% of families primarily use cell phones as their only access point to online material. An interesting point revealed by interviews is that many families do not even have enough smartphones for each child; they must share.

A lack of access to technology

This naturally affects the level of parents’ satisfaction with the learning process. Along with the lack of technological resources to access learning material, 34.4% of respondents indicated that they face the problem of a weak Internet connection, 13.9% of respondents noted the lack of time to deal with their children’s learning, and 9.9% reported the lack of sufficient knowledge to teach their children (Figure 2). It should be noted that the state was not able to quickly expand access to high-speed Internet for high-quality online education, and particularly in rural areas where such infrastructure

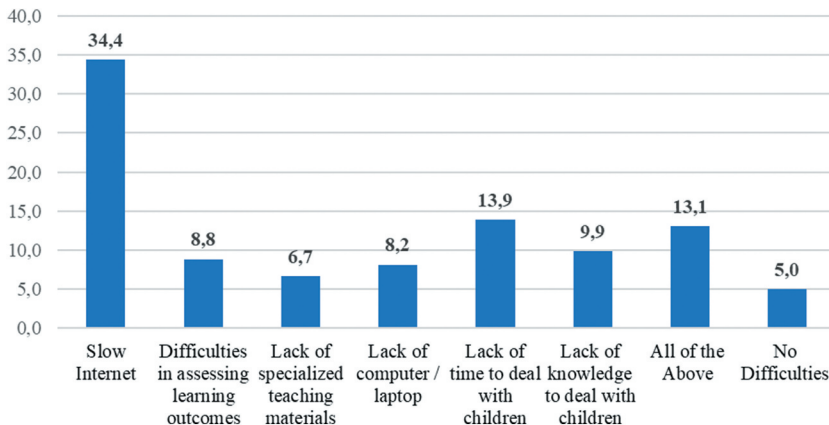


Figure 2. Difficulties in the process of distance/online learning.

would take time to install, most educational institutions have switched to a distance learning format (Tengrinews.kz, 2020).

However, some other factors have influenced parents' satisfaction with the quality of distance/online education during the pandemic in Kazakhstan. These factors add to the technological factors at play and imply some deeper structural issues – and some strengths – in Kazakhstan's education system.

Regression models with parent satisfaction as the dependent variable

Table 2 shows four regression models in which the dependent variable is parent satisfaction, and the independent variables are gender, age of parents, monthly family income, the level of education of parents, number of children in the family, the language of instruction of children, as well as parents' assessment of the government's readiness to switch to models that were only distance, only online or combined (blended) learning, as well as parents' assessment of the level of competence of teachers (Table 2).

However, a regression model was built based on the type of learning: (1) children who are enrolled only in an online format; (2) children who are enrolled only in a distance learning format; (3) children who study in a combined format, that is, combining distance (when study is based on learning materials sent to students from educational sources) and online learning (when study takes place interactively online); (4) all survey respondents, i.e. parents whose children study in combined, online and distance learning formats.

Socio-economic characteristics related to parents' satisfaction

Thus, the results show that the age of parents has a positive relationship with their level of satisfaction with the quality of distance/online learning. In other words, the older the parent, the higher their level of satisfaction. This trend is also shown by the results of the interviews. The older the parents, the more understanding was evinced about the current situation and the more toleration was shown towards the learning process.

What have we not seen in our lives? We saw everything ... and the famine ... and the devastation ... Therefore, what the Government has done and what knowledge already gives is already good. Therefore, I am satisfied with the quality of training ... It's better than nothing. (Female, 59 years old, Karaganda region)

I don't know. It could have been done better. They should have prepared in advance. And to develop the content of the learning material and transmit everything to a remote format. ... I am more dissatisfied than satisfied. (Female, 28 years old, East-Kazakhstan region)

Along with this, the number of children in a family has a strong inverse relationship with the level of satisfaction of parents. In other words, more children led to decreasing parental satisfaction with the

Table 2. Regression models for parents' satisfaction with the quality of distance/online education during Covid-19.

	Model 1 Online	Model 2 Distance	Model 3 Combined	Model 4 Online/Distance/Combined
Intercept	.282	.071	.045	.105
Gender	-.019	.107	.066	.074
Age	.057	.055**	.105**	.063***
Income	.020*	.024***	.015	.022***
Education	.078*	.127***	.183***	.128***
Numbers of Children	-.066***	-.066***	-.056**	-.064***
Language	.039	.110**	-.023	.070**
Readiness of Gov	.456***	.473***	.442***	.464***
Teachers and Tech	.397***	.373***	.386***	.381***
<i>Numbers of observation</i>	5985	19,931	4350	30,266

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

quality of education. Meanwhile, Model 1, Model 2 and Model 4 show that family income has a positive effect on parents' attitude to the quality of education during Covid-19. People with high incomes are more satisfied with the quality of distance/online education than people with low incomes. As mentioned, one of the difficulties faced by parents is the lack of access to technological resources (Figure 2). In this regard, it should be assumed that the lack of sufficient funds to purchase a computer or other technological resources has a certain impact on the quality of distance/online education. Parents who are able to afford the technology needed to make full use of the education will end up experiencing distance/online learning more positively. Larger families face a significant burden in providing sufficient technological resources for all of their children. This is confirmed by the results of an in-depth interview.

In general, I am satisfied with the process of learning. There is no issue with a computer, tablet or Internet in our family because an expensive modem is set ... We can afford to buy computers ... Unfortunately, there are parents in our class who cannot afford that and their children study on a phone ... Of course, children do not receive a quality education on a phone. (Female, 42 years old, Nur-Sultan city)

One smartphone for all the members of the family. It is impossible to study this way. We don't even know what to do. (Female, 45 years old, Karaganda region)

The TV is broken, the laptop doesn't properly work. (Female, 45 years old, East-Kazakhstan region)

One phone for three students. (Female, 39 years old, Mangistau region)

We study only via TV. The mobile phone is broken. To buy a computer, having four children is impossible. I have to buy them either food and feed them, or buy expensive laptops ... Everything got expensive. (Female, 46 years old, Kyzylorda region)

At the same time, the regression analysis showed that there is a direct positive correlation between the level of satisfaction of parents with the quality of education during the pandemic and their assessments of the level of competence of teachers and the readiness of the government to switch to distance learning. Thus, all four regression models show that as the scale of evaluation of these variables increases, the level of satisfaction also increases. This fact is also confirmed by previous research according to which the educational achievements of students depend more on the quality of teaching than on the number of students in one class (Rivkin et al., 2005). In this regard, the level of competence of teachers has an impact on the quality of education, which is ultimately correlated with the level of satisfaction of parents.

Along with this, it is interesting that on average, parents whose children are taught in Kazakh are more satisfied with the quality of education than children with Russian, English and mixed languages. Thus, Model 2 and Model 4 show that satisfaction with the quality of education also has a relationship with the language of instruction (Table 2).

The effect of school closures and social lockdowns

Finally, we can see that the state of lockdown has a direct effect. According to Figure 3, more than 43% of respondents agree or strongly agree that social isolation (length of quarantine, home schooling) has a strong effect on their children's learning motivation. This effect can be noticed also in interviews:

Children don't have normal communication. Lessons of 10–20 minutes, during which it is not even possible to talk and ask questions. No grading system. Because of this, the motivation of children is reduced... (Female, 26 years old, Mangistau region)

There is unwillingness to study without a teacher. (Female, 36 years old, Kostanay region)

I believe that the pandemic has certainly affected all areas of people's lives. We were all not ready for it. It is difficult for children to make a drastic change from a regular educational process to a distance learning process ... Children do not want to study in an apartment. (Female, 42 years old, East-Kazakhstan region)

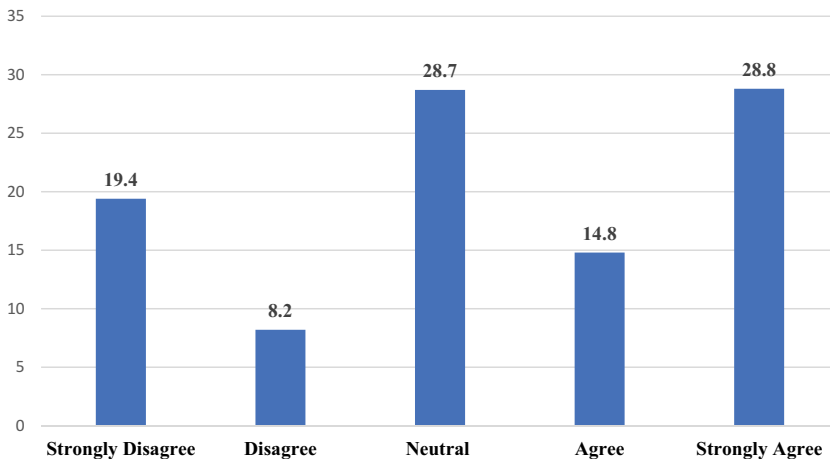


Figure 3. Do you agree or disagree with the following statement: Social isolation affects my child's learning motivation? (%).

Based on the current state of quarantine in Kazakhstan, it is interesting to note that families that are heeding the social isolation rules more closely may see a greater negative effect as a result of social isolation. Families that still hold social gatherings and allow their children out to socialise may be better at preserving their motivation, but at the expense of public health. Parents reported in the interviews that their decisions on how closely to adhere to public health recommendations depend in part on their opinion on the extent to which their children can cope with social distancing.

Discussion

According to the analysis, transition to distance/online learning in a pandemic requires improvement in technological and pedagogical terms. The research conducted showed that weak points exist, and there were real consequences as a result of the insufficient preparedness of the country's educational system for this forced initiative; consequences confirmed by the responses of parents.

It is important to note that just as the problems seen in the transition to online/distance learning have had larger negative repercussions – on the mental wellbeing of families, for example, – addressing them will have positive consequences much more far-reaching than providing a better scholastic experience. The results of the study show that social isolation during the quarantine directly affected children's motivation to learn. Moreover, families strictly following the social isolation rules confirmed a greater negative effect from the social isolation on their children. In addition, parents of active children found it difficult to make sure they studied productively and happily at home. Keeping in mind the dangers of psychological distress on children, Hasan and Bao (2020) provided additional guidance for parents on how to support their children's emotional health and learning, with the goals of improving harmony in homes and encouraging families to follow public health recommendations.

Meanwhile, extending high-speed Internet access across Kazakhstan and supporting access to technological equipment and infrastructure will likely bring economic opportunities to less-developed regions of Kazakhstan. The difficulties these regions faced with the transition to distance/online learning gave further evidence to the findings of Rideout and Katz (2016), namely that Internet and other technological infrastructure are no longer luxuries, rather they are vital to uplifting economically disadvantaged families. With more access to technology, parents will also grow more technologically literate and be able to help their children access educational and other opportunities. Furthermore, access to online/distance learning opportunities can allow more children than ever before access to trained, highly qualified teachers who are otherwise in short supply

in many places in Kazakhstan, increasing the standard of education across the country. In support of that conclusion, Rivkin et al. (2005) pointed out the crucial dependence that children's educational achievements have on the quality of teaching.

We must also bear in mind that in the Kazakhstani experience, the main factors affecting the level of parental satisfaction with the quality of distance/online learning are family socio-economic characteristics, the number of children in the family (which itself is closely related to family socio-economic status), the readiness of the government to switch to distance/online learning, and the observed level of teachers' professional competence. An inability to equip children with the technological resources to properly access distance/online education increases the level of parents' dissatisfaction (or anxiety) with distance/online learning. This discovery supported the findings of Jónsdóttir et al. (2017), namely that parents' general satisfaction with their children's schooling is influenced by the parents' level of educational attainment, marital status and socio-economic background, suggesting that similar forces are at play in the distance/online education era. However, where Jónsdóttir et al. (2017) found that parents grew more unhappy with schools as their children got older, the current study found that parents of older children were more satisfied in the current situation than parents of younger children. This discrepancy is significant because it implies that the unique factors that make the current situation different have weighed more heavily than whatever factors influenced satisfaction before.

Another interesting finding of the current study is that the level of parents' satisfaction with the quality of education during the Covid-19 pandemic directly correlates with their evaluations of the level of competence of teachers and the readiness of the government to implement distance/online learning. Moreover, an improvement in such evaluations is reflected in an increase in the level of satisfaction.

In the meantime, a variety of methods from other countries exist to address these issues that will in turn fuel the growth of Kazakhstan's middle class. Ability to provide access to education for their children can be an excellent criterium for the distribution of government assistance. Additional tax credits could be made available for additional children. Identifying where teachers are not performing to the satisfaction of parents provides targets for retraining and, as mentioned, the expansion of online education. A family that is supported so that they do not need to decide between education (due to the cost of technology) and feeding their children, will be freed from pressure so that soon they will no longer need support and can contribute a higher value to society.

Study implications

This study confirms the significant role of parents in a rapidly changing educational process. Parental satisfaction with the learning process depends on many factors, including the competence of the teachers and the quality of the learning content. Distance/online learning during the pandemic exposed many problems associated with applying these models on a large scale, which was subsequently reflected in the level of parental satisfaction. Internet speed, student access to the Internet and technological resources, and the ability of teachers to create quality learning content and teach online have become important components that determine the level of organisation of the educational process during the pandemic. These components have also become the fundamental criteria for assessing the activities of authorised bodies in the field of education and educational institutions. The ability to properly coordinate distance/online learning, provide quality educational content, create an enabling environment for access to distance/online learning and other factors have determined the actual level and the public perception of government readiness to conduct distance/online learning.

Study limitations

The main limitation of this study arises from it being conducted in a very short period of time and in a period of rapid change. Thus, in future studies the 'snapshot' nature of the results can be modified. Meanwhile the research results mainly reflect the process of distance/online learning in general

education schools; however, the study involved the parents of children enrolled in educational schools, colleges and universities. While more targeted sampling can address this problem in future studies, the results here shed light on some of the most common educational problems in Kazakhstan.

Conclusion

In this study, parental satisfaction with education as a result of the ability of the Kazakh government to smoothly switch to distance/online learning served as a measure of success for broader national development strategies. How much of the country has access to sufficiently high-speed Internet, the availability of educational resources for distance/online learning, and finally the availability and affordability of technological equipment such as computers and other resources for families – these are questions that have an impact far beyond the immediate transition of the country's education system. Certain resources can be scaled up – for example, teachers who demonstrate exceptional skills in delivering video lessons can be shown to a much larger audience, with other teachers having more time as a result for other tasks. Diversification of labour can therefore be used in order to improve the overall level of education. However, one of the most important tasks of teachers and an important part of a child's successful journey through school – pastoral support – is much more difficult to scale up. We may see a future where relatively few teachers who are gifted lecturers specialise in conducting those video lessons, a larger group of teachers provide continuous guidance on how to update these lessons, and the bulk of teachers are trained and devote their time to providing pastoral support online or in-person, on a more personalised basis. This would be a future resulting from a desire to not merely restore satisfaction with the education system to *status quo ante*, but to take advantage of the situation to make improvements.

In general, the results of the study conducted in the Kazakhstani context are of practical value for public authorities in the field of education policy implementation as it fits into larger national policy, and they can be used to adjust distance/online learning processes in the future, as worldwide societies continue to grapple with the uncertainty introduced by extreme events such as pandemics. Even with the promised development of viable vaccines, the world cannot go back to the way it once was – both because of the advantages discovered of moving some work/education online as well as for public health reasons – and Kazakhstan has the opportunity to use this forced transition as a spur to bring about a more innovative and accessible education system and significantly improve the wellbeing and potential of all its citizens.

Disclosure statement

No potential conflict of interest was reported by the authors.

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