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Transformation of Kazakh Children's Games into Digital Format

Abstract. Modern researchers talk a lot about the concept of “digital childhood”. It is no secret that without clear boundaries between the virtual and real world, children are more interested in electronic games than in children's games in the traditional form that have developed in the era of electronic technology development. As always, established worlds undergo changes when any new technologies come into our lives. The order of playing the established Kazakh children's games and, in general, the gameplay of children has also changed. Considering that most of our national games have not switched to electronic format, and even more so do not correspond to this format, it should be noted that, first of all, this poses a serious threat to children's game folklore. For sciences such as psychology, sociology, pedagogy, ethnography, and not just folklore, this is a common problem. We say that although distancing children from traditional games is normal in the era of digitalization, it has a huge impact on the mental and physical development of the child. Therefore, the main purpose of this study is to identify the main features of Kazakh children's games in the conditions of electronic transformation, to identify the influence of electronic format on game folklore, to think over ways to preserve national games, as well as to consider new approaches to the analysis of children's games as a new socio-cultural phenomenon. To this end, this article analyzes the traditional and digital forms of both games on the example of traditional Kazakh games for children “togyzkumalak” and “asyk atu”. A questionnaire survey was conducted among schoolchildren and parents, opinions were exchanged on the pros and cons of electronic games, and the reasons for children's enthusiasm for electronic games were revealed. Specific recommendations on popularization, popularization of Kazakh children's games are given.

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Keywords: children's folklore, children's games, game folklore, parenting, electronic games.

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Қазақ балалар ойындарының цифрлық трансформациясы

Аңдатпа. Қазіргі ғылыми зерттеулерде «цифрлық балалық шақ» ұғымына ерекше назар аударылуда. Виртуалды және шынайы әлем арасындағы шекаралардың көмескіленуі жағдайында балалардың дәстүрлі ойындарға қарағанда электрондық ойындарға қызығушылығы артып келеді. Цифрлық технологиялардың күнделікті өмірге енуі қалыптасқан ойын тәжірибелерін өзгертіп, қазақтың

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дәстүрлі балалар ойындарының ойналу тәртібі мен баланың ойын әрекетіне ықпал етуде. Ұлттық ойындардың басым бөлігінің электрондық форматқа көшірілмеуі және олардың ерекшеліктерінің осы форматқа толық сәйкес келмеуі балалардың ойын фольклорын сақтау мәселесін өзекті ете түседі. Бұл мәселе фольклортанумен қатар психология, әлеуметтану, педагогика және этнография ғылымдарына да ортақ. Цифрландыру дәуірінде балалардың дәстүрлі ойындардан алшақтауы заңды құбылыс болғанымен, оның баланың психикалық және дене дамуына ықпалын зерделеу маңызды. Зерттеудің мақсаты – цифрлық трансформация жағдайындағы қазақ балалар ойындарының негізгі ерекшеліктерін айқындау, электрондық форматтың ойын фольклорына ықпалын анықтау, ұлттық ойындарды сақтау жолдарын қарастыру және балалар ойындарын жаңа әлеуметтік-мәдени құбылыс ретінде талдаудың тың тәсілдерін ұсыну. Осы мақсатта мақалада «Тоғызқұмалақ» пен «Асық ату» ойындарының дәстүрлі және цифрлық нұсқалары салыстырмалы түрде талданады. Мектеп оқушылары мен ата-аналар арасында сауалнама жүргізіліп, электрондық ойындардың артықшылықтары мен кемшіліктеріне қатысты пікірлер зерделенді және балалардың оларға қызығушылық таныту себептері анықталды. Дәстүрлі балалар ойындарын кеңінен танытуға және насихаттауға бағытталған нақты ұсыныстар берілді.

Алғыс. Мақала Қазақстан Республикасы Ғылым және жоғары білім министрлігі Ғылым комитетінің BR27101897 «Қазақстан әдебиеттануы, фольклортануы және өнертануы экосистемінің цифрлық трансформациясы: пәнаралық зерттеулер» жобасын іске асыру аясында орындалды.

Кілт сөздер: балалар фольклоры, балалар ойындары, ойын фольклоры, бала тәрбиесі, электрондық ойындар.

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Цифровая трансформация казахских детских игр

Аннотация. В современных научных исследованиях особое внимание уделяется понятию «цифровое детство». В условиях размывания границ между виртуальным и реальным мирами дети всё чаще отдают предпочтение электронным играм перед традиционными. Внедрение цифровых технологий в повседневную жизнь трансформирует сложившиеся игровые практики, влияя на порядок проведения традиционных казахских детских игр и игровую деятельность детей в целом. Большинство национальных игр не переведено в электронный формат, а их особенности не всегда позволяют полноценно адаптировать их к цифровой среде, что актуализирует проблему сохранения детского игрового фольклора. Эта проблема имеет междисциплинарный характер и затрагивает не только фольклористику, но и психологию, социологию, педагогику и этнографию. Хотя отдаление детей от традиционных игр является закономерной тенденцией эпохи цифровизации, важно изучить его влияние на психическое и физическое развитие ребёнка. Цель исследования – выявить основные особенности казахских детских игр в условиях цифровой трансформации, определить влияние электронного формата на игровой фольклор, рассмотреть пути сохранения национальных игр и предложить новые подходы к анализу детских игр как нового социокультурного явления. Для достижения этой цели в статье проводится сравнительный анализ традиционных и цифровых версий игр «тоғызқұмалақ» и «асық ату». Проведён анкетный опрос школьников и родителей, изучены их мнения о преимуществах и недостатках электронных игр, выявлены причины увлечённости детей этими играми. Предложены конкретные рекомендации по популяризации традиционных казахских детских игр.

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Ключевые слова: детский фольклор, детские игры, игровой фольклор, воспитание детей, электронные игры.

1. Introduction

In this research article, the topic “transformation of Kazakh children’s games into an electronic format” was chosen as the main focus of the study. We are now in the 21st century – an age of rapid scientific and technological development. Today, life is directly connected with digitalization; this is the era of technology, nanotechnology, and robotics. Scientific and technological discoveries taking place around the world emerge every day, not every month. Today’s innovation may become obsolete tomorrow, because there is one thing that makes everything move so fast: the Internet. It has become easier for people to quickly gain popularity and to learn science and knowledge. Today, computers, smartphones, and gadgets are used in everyday life. Electronic services such as messaging, document sharing, and bank payments have appeared. This trend has not spared children’s games either. A child who cannot even speak yet can be seen browsing Internet pages before the age of 3. As a result, the upbringing of children who have been obsessed with phones since early childhood has changed, and they have become unable to give up electronic games. Thus, over the years, the number of children playing with toys or playing outside with neighboring children has been decreasing. Therefore, this is a very important and topical issue that requires further study.

Now the number of children obsessed with gadgets is growing all over the world. So, in the USA and Europe in recent years, a large number of digital tools for children have appeared (toys with an Internet connection, books and games with added realism) (Dyson, 2017), in Kazakhstan preschoolers, elementary school students most often use their parents’ means-smartphones, tablets and computers. This, of course, allows parents to control what content the child sees.

2. Research Methods and Materials

2.1 Materials

In today’s era of digitalization, researchers openly declare that gaming culture has undergone serious qualitative changes (Smirnova, 2013). On the one hand, today’s children’s games have become more complicated as children started using various digital gadgets and digital tools that paved the way for virtual reality (Marsh, 2014). On the other hand, modern children, as a consequence, do not play traditional games (often plot-role-playing) on a large scale. And this, according to psychologists, leads to the fact that the child’s ability to play games decreases. And from the point of view of folklore, the displacement of traditional games by electronic ones leads to the fact that game texts are forgotten, and some types of games are preserved only on the pages of books. In recent years, children’s programs called Virtual Play Worlds have become increasingly widespread. Such games can be built as a separate virtual platform or as an addition to existing toys (Barbie, LEGO) (Marsh, 2017). Such programs help the child create his own game world in a virtual space, invent his own characters, and create his own game plot. Toys that include a digital or electronic component, other than various gaming applications and programs, are becoming increasingly popular among children. Such toys can be controlled from a computer or smartphone. Such toys usually provide two-way communication.

That is, when a child is given a task and answers correctly, it gives him a compliment. In Kazakhstan, such digital toys have not received as much recognition as in the USA,

Europe, or Japan (Klopotova & Smirnova, 2022). We are talking about this because traditional games are much more often replaced by digital ones abroad. Current researchers (Lundtofte et al., 2019) have identified several directions in the study of this problem: 1) gaming activity using various technologies (gadgets, digital toys, computer programs); 2) conducting a comparative analysis of games using digital and traditional toys; 3) the influence of the frequency and nature of gadget use on the development of the child's cognitive processes. American researchers have conducted extensive research in this context. In the first direction, it was found that children react differently to different digital content. The American scientist H. Moore found that which gadget and which application the child used to play games also affects his interaction with children in the environment (Moore, 2014). In her research, she openly states that a child's relationship with the environment can become closed off due to electronic games. The child accustomed to traditional games develops imagination well and gameplay flows freely. The scientist describes the negative impact of the transition from established traditional games to a fully electronic format.

And Swedish scientists S. Kjallander and F. Moinian are of the opinion that children who use apps rather than various traditional games, on the contrary, move forward and develop their imagination (Kjallander & Moinian, 2014). In their study, scientists put forward the idea that an application in a gadget gives a child freedom, which is useful because they can change the names of characters or some storylines in the digital world. They were of the opinion that digital reality (realism) goes hand in hand with the current flow of children and revives traditional games in a new way, and not vice versa. Scientists demonstrate and support the positive aspects of the transformation of traditional games. The scientist S. Edwards has already coined the term converged play (Edwards, 2014), which arose on the way of the transition of ordinary games into a virtual form. It is a type of game in a traditional form, mixed with elements of the game in a new format. Other scientists use the term connected play when, in today's era of globalization, online and offline spaces connect and a gaming situation occurs. In addition, we see that there are different forms of character between the traditional and digital form of the game.

A researcher of children's game folklore, Tijana Jakovlevic, stated that "Folklore is not a set of cultural concepts, it is a process of communication and an active tradition that undergoes changes in communication not only for adults, but also for children due to their inherent style, form and cultural qualities" (Jakovljevic, 2009). Thus, the scientist noted that communication between children in itself is a separate folklore, but said that children's play itself can be an important model of communication. The scientist analyzed the semantic structure of children's games. However, it is no secret that in today's era of digitalization, the traditional form sometimes switches to electronic, and sometimes to mixed. The American scientist P.H. Kahn (Kahn, 2006) investigated the change of the traditional form of games to a mixed one. The scientist takes an ordinary plush toy – a puppy – and a robot AIBO as the main attributes of the child during the game. So they are compared.

In Kazakhstan, scientists B. Chirdaev, E. Sagyndykov, Sh. Ibraev, S. Kaskabasov, K. Slamzhanovich, and others grouped the types of Kazakh children's games in this area of research (Games of the Great Steppe, 2021). In their works, children's games were systematized and collected in accordance with the age and order of play. K. Slamzhanovich

investigated the semantic meaning of game texts (Slamzhanovich, 1995). In addition, the ethno-folklore aspects of Kazakh children's games were studied by scientists B. Chirdaev, E. Sagyndykov, and S. Kaskabasov (Kaskabasov et al., 2009).

2.2 Methods

To achieve this goal, we studied and analyzed the available opportunities using Kazakhstan as an example, from August 1, 2025 to October 1, 2025, in order to preserve children's game folklore and develop games for Kazakh children. This comprehensive study consists of three stages:

- a. Stage 1: identification of the advantages and disadvantages of the transformation of Kazakh children's games from the traditional form to the electronic format (based on the survey of 10-12 years old school students and their parents);
- b. Stage 2: identification of the reasons why electronic games have become more common among children in Kazakhstan than traditional ones (based on a questionnaire);
- c. Stage 3: consideration of the main issues of preserving traditional Kazakh children's game texts, and the development and promotion of children's games.

The following methods were used in the course of the study:

1. Analysis of scientific literature on the topics of children's games, game folklore, and the influence of games on child psychology. The main qualitative criteria used when selecting these information resources (monographs, articles from scientific journals, materials from scientific conferences, and press articles) are the scientific interest of the authors, the subject of the publication, and the credibility of the source.

2. As a result of a survey of parents and children, the advantages and disadvantages of the transformation of Kazakh children's games from the traditional form into an electronic format were demonstrated, and the main reasons for children's increased interest in electronic games were identified.

3. In order to develop and preserve traditional games for children, a case method was used to analyze game texts. The questionnaire was conducted by e-mail with parents and students. Thirty students and thirty parents from Almaty – a total of sixty respondents – were asked the following two questions: "What are the advantages and disadvantages of the transformation of Kazakh children's games from the traditional form to the electronic format?" and "Why are electronic games more popular among children in Kazakhstan than traditional ones?" The respondents had to answer both questions in any form, with supporting reasoning, within three weeks. All respondents were informed of the purpose of the survey, and it was also noted that their answers would be used in the research.

In total, responses came from fifty-four people. We analyzed the answers relevant to the following themes: "advantages and disadvantages of the transformation of Kazakh children's games from traditional to electronic form" and "the main reasons for the popularity of electronic games among children in Kazakhstan rather than traditional games." The collected responses were then evaluated using the engagement coefficient via SPSS software.

3. Discussion

As part of the study, as a result of a survey of parents and children, the advantages and disadvantages of the transformation of Kazakh children's games from the traditional form to the electronic format (Table 1) were revealed. In the course of the study (Table 2), it was

found that the main reason for the popularity of electronic games among Kazakh children, rather than traditional games, is that in the era of new innovations, digital technologies are rapidly developing, and children are keeping up with the times. Indeed, gadgets and smartphones are becoming a part of our lives. It was also emphasized that electronic games give more freedom of imagination and action than games in the traditional form.

As an example of an advantage (Almat, a parent of 3 school-age children): "Electronic games contribute to the formation of analytical and critical thinking in the child, thereby positively influencing the child's mental development." Another parent (Gulnur, a parent of 5 school-age children) said: "Under the influence of electronic games, children's communication with each other decreases, and their communication abilities deteriorate. Plus, these games harms to their health." Thus, although, on the one hand, it was believed that the full implementation of modern electronic games in daily life will allow children to develop, and that in the future, children familiar with computers will come up with various electronic games, virtual consultations, and services themselves, becoming a source of income, on the other hand, in this way, children will forget national games and stop communicating with each other. In the course of the study, the opinions of parents and children were analyzed together, and the general answers were shown in the table. To preserve the traditional national character of the game, we recommend adhering to the 50/50 principle. Only then will the balance be maintained. The traditional form of the game will not disappear either.

Table 1: Advantages and disadvantages of the transformation of Kazakh children's games from a traditional form to an electronic format

	Explanation	%*	Rank
Advantages	A child who grows up closer to electronic games will be closer to science and technology, and this is a very popular ability in today's digital times.	88.9%	1
	Types of games in electronic form have a positive impact on the mental development of the child. For example, it teaches the formation of analytical and critical thinking.	77.8%	2
	The quality of education can be improved by using electronic games in the education system. The material presented in such a virtual game form is well perceived.	74.1%	3
Disadvantages	A child who grew up passionate about computers and gadgets may experience a lag in physical development. For example, in the absence of movement, the circulatory system is disrupted, the child's spine bends, and vision deteriorates. And in games of the traditional form, such complexity does not arise.	64.8%	1
	The thinking of a child playing games with a computer and a smartphone develops one-sidedly. And games of the traditional form will contribute to the development of the child's imagination and his free growth.	64.8%	2
	Electronic games impair the child's communication abilities. In particular, the child's character becomes withdrawn and becomes a soul that cannot freely express its thoughts. And since games of the traditional form include communication, exchange of opinions, they develop communicative abilities.	64.8%	3

Note: compiled on the basis of an parents and children survey; * – % of parents and children references; the concordance coefficient $W = 0.81$ ($p < 0.01$) which indicates strong consistency of parents and children opinions

The table below (Table 2) shows why electronic games are more popular among Kazakh children than traditional games.

Table 2: the main reasons for the popularity of electronic games among Kazakh children, and not traditional games

No	Cause	Explanation	%*	Rank
1	The process of time	In the era of new innovations, digital technologies are developing rapidly. That's why playing electronic games means keeping up with the times.	88.9%	1
2	Visual effect	Electronic games give something that a regular game cannot give in terms of visual effect. For example, 3D graphics immerse you in the virtual world and immerse you in yourself. An action that you can't do in real life can be implemented in the virtual world.	77.8%	2
3	Electronic games are available	A computer, gadget, smartphone have become a part of our life. Electronic games are becoming more and more accessible.	74.1%	3
4	Became fashionable in society	Children are more imitators. Electronic games are interesting to someone, compete with each other.	64.8%	4
5	The plot, the script is beautifully designed	The plots of the games make a person cry, laugh, give various emotions. There are many simulation games.	64.8%	5

Note: compiled on the basis of the parents and children survey; * – % of expert references; the concordance coefficient $W = 0.85$ ($p < 0.01$) which indicates strong consistency of parents and children opinions

3.1. Modern electronic Kazakh children's games: "togyzkumalak" and "asyk atu"

To reinforce the answers received during the survey within the framework of the study, it is worth noting that electronic games, including Kazakh children's national games, are generally popular among Kazakh children. Kazakh children's games have already been translated into electronic format. There are not many Kazakh national games that already have an analogue in digital format. This has its reasons. Firstly, Kazakh children's games are not very well promoted. In schools and kindergartens, national games have not been fully included either in everyday use or in the school curriculum. For this reason, the electronic form of the national games has also not received much recognition. National games are often formed depending on the socio-economic conditions and economic opportunities of each population. Most of the national games of the Kazakh people are based on playing with natural objects. Among such games today are applications for "togyzkumalak" and "asyk atu," which can be downloaded through the AppStore and PlayMarket for gadgets and smartphones. A comparative analysis of the traditional form and the electronic form of these two games was carried out.

Togyzkumalak is basically an intellectual table game. Historian K. Zabayuly noted that "togyzkumalak has 4 thousand years of history..." (History of Kazakhstan, 2022). In the

nineteenth century, the game "togyzkumalak" was played from childhood by Kazakh thinkers and educators Abai Kunanbayev, Shokan Ualikhanov, and Ibrai Altynsarin. However, the nomads put a great deal of effort into preparing for this game. Previously, children would look for barren, flat land. Two large, long pits – called kazan (cauldron) – were dug at each end of the board, along with nine holes on each side, for a total of eighteen holes called otau (meaning "house"). The togyzkumalak game is played between two people on a special board using 162 kumalak – small pellets resembling sheep manure, which is how the game got its name (kumalak means "pellet" or "dropping"). At the beginning of the game, each player owns one kazan and eighty-one kumalak, distributed nine to each of the nine otau on their side (Games of the Great Steppe, 2021). It is also worth noting that "choosing flat land," "collecting kumalak," and "digging the kazan" are physical activities. Consequently, wherever there is physical movement, healthy physical development follows.

We downloaded ToqyzQumalaq via the AppStore and tried to determine how close the game is to its traditional form. While this game is usually played by two people, the app also gives you the opportunity to play alone. It was noticed that the order of the game and all its elements are preserved. Both boards and the pits placed on them appear on screen. You can even play the game online with other players. Despite the fact that the game retains its intellectual character, the child cannot throw the kumalak while holding it in his hand, since everything is done by touching the touch screen. As a result, this cannot give the game a tactile character or a Kazakh flavor.

The game asyk is one of the national games of the Kazakh people. Children rush out to the field to play. A child who grows up playing this game becomes skilled, dexterous, intelligent, and patient. Asyks (astragal bones) are taken from sheep, argali, goats, and saigas. The game of Asyk sharpens the child's nervous system from an early age and helps the child to master in accuracy, restraint, and calm (Slamzhanovich, 1995).

We downloaded the electronic version of this Asyk game through the AppStore and explored its features. There are also opportunities for single-player or multiplayer games. Since this is an electronic game, you can choose the speed of the throw and then mark the throw radius on the screen. But, unfortunately, this cannot contribute to the physical development of the child, since no physical actions are involved in this electronic version.

Here, the child cannot simultaneously think, move quickly, and coordinate with the movements of the body. Thus, the game cannot reveal its character of endurance and agility training. It is obvious that, in general, the transition of our national games to such an electronic format will not fully contribute to their recognition among children, nor will it fully represent the traditional form of the game. Firstly, it should be recognized that it lags behind foreign video games in graphics and visual effects. For this reason, it cannot attract children to itself. Secondly, the character of the national game in its traditional form is clearly not disclosed. Analyzing all this, it can be understood that only traditional games can preserve the national mentality and values. The famous scientist J. Marsh gave an analysis of the application of traditional game theory to modern children's games (Marsh, 2017). In it, he argues that games in the traditional form are focused on the individual, so they help him explore the linguistic, social, or cognitive aspects of a child's behavior, and also contribute to the full development of the child.

4. Results

4.1. Transformation of children's games: global factors

The power of the Internet also affects children's games. Over the past 20 years, interest in electronic games has sharply increased around the world. As a result, the concepts of "virtual world," "virtual games," and "virtual communication" were formed. The COVID-19 pandemic, which began in 2020, increased the significance of the term "online" (Cuffaro et al., 2020). The global public was isolated due to the coronavirus epidemic. Humanity began to pay more and more attention to paying for necessary services – bank payments, money transfers, payments for electricity and water – without leaving home. But there was also a drawback. People, instead of seeing each other's faces, began to merely ask about each other's well-being rather than meeting face to face. As a result, relationships were broken off for several years. It was then that children became more interested in computer games. Outdoor play was limited during the pandemic. Previously, a child could freely play with other children in the yard, but this stopped, because it was believed that children would get infected with the coronavirus if they met, greeted each other, or hugged while playing. Therefore, children switched to virtual relationships. They also stopped going to school. Instead, they communicated with classmates online, attended lessons, and completed assignments remotely.

Children had to sit at the computer all day. Since they did not go outside, they played various electronic games with their friends. Let's look at how children choose these games. Among children around the world, popular games include Counter-Strike, Tekken 3, Grand Theft Auto: San Andreas, Clash of Clans, and others. Few people today are unfamiliar with these games. Imitating famous football stars like Lionel Messi or Cristiano Ronaldo no longer requires tiring oneself out on the football field – you can play as them on your computer instead (Coyne & Stockdale, 2021). Advances in technology have led to the creation of virtual likenesses of famous personalities. In addition, there are many Disney cartoons and various action movies, including games featuring characters from historical films. A child who is familiar with these characters will likely immediately choose electronic or video games released featuring them. There is also a marketing influence at play here. As a result, games in the traditional national form remain unnoticed by children.

Famous scientists M. Horkheimer and T. W. Adorno (Horkheimer & Adorno, 1997) in their research refer to the concept of privacy as another reason why children choose virtual games rather than traditional games. That is, children seem to choose virtual games in order to play individually and independently. Now that the value of privacy among children worldwide is growing, the virtual world plays a huge role. Scientists state that "the virtual world gives freedom of action, thereby providing a huge space for conducting various experiments with one's inner concept of 'I,'" arguing that in this way the child is unaware of how he has fallen into the trap (Tótenaev, 2013). The factor causing concern among parents throughout the world today is the safety of children in the virtual world – namely, cybersecurity. As we have already mentioned, privacy in virtual games in many ways prevents parents from tracking what content the child is watching, and how suitable the chosen game is for his age, psyche, and social development. This affects not only the child's safety, but also his psyche as a whole. In this regard, a 2018 study of the computer

and video games industry conducted by the Entertainment Software Association of the USA (2018) found that 64% of the 4,000 families surveyed said they have a family member who plays video games at home for more than three hours a week. Less than 30% of these family members were children under the age of 18. Most interestingly, two-thirds of the parents surveyed played digital games with their children every week, and even considered it beneficial. Despite these findings, there are very few studies on the positive and negative effects of digital games on children's development (Cover, 2004). In 2017, Common Sense Media conducted a study of children aged 0–8, which found that children aged 2–4 spend 21 minutes a day on interactive digital games, while children aged 5–8 spend 42 minutes (Chen & Adler, 2019). Here we see that modern children have been accustomed to games in digital form since birth. This is a global problem. It would not be an exaggeration to say that digital games, though originally intended as educational tools, have generally alienated children from the traditional form of games. Therefore, it is necessary to maintain a balance in this matter.

Utility: Every child improves their computer literacy. Faster than adults, they become aware of what is happening in the world. As a result of playing a large number of virtual games, a child will likely become inclined to explore new game formats, Internet services, and various available tools.

Harm: A child is a developing future personality. He needs to run, jump, chase a ball, and play with his friends. This helps him improve both physically and mentally. We argue that a child who establishes communicative relationships in real life will grow up more decisive and able to make decisions quickly.

4.2. Transformation of Kazakh children's games into electronic format: development opportunities

The global trend as a whole is moving toward the digital world. Therefore, it is quite possible that digital games could become a source of income, and not just entertainment. Returning to the situation in Kazakhstan, we found that children prefer electronic games to traditional forms. However, we recognize that electronic gaming is an area that has not yet been fully explored. Therefore, we first took into account the classification of game content for older children. The well-known folklore scholar S. Kaskabasov grouped game genres according to the following criteria (Kaskabasov, 2009):

- a. Depending on the content of the game (puzzles, gambling, sports, etc.)
- b. Depending on the child's ability to communicate during the game (action, strategy, etc.)
- c. Depending on the presence of a certain plot and rules in the game (training games, games with rules, games with a plot).

The above grouping also applies to the classification of all games. However, we found that electronic games cannot fully reveal the nature of traditional games. Therefore, we decided to study the nature of these electronic games in our own way, taking as a basis several classifications that exist in science. We ourselves partially divided them into four groups, namely:

1. Shooting-oriented games;
2. Intellectual games;

3. Ideological games;
4. Games to pass the time.

There are basic reasons for such a separation, since at the heart of every game lie semantic ideas. The function each one performs is also different. This is directly related to the mentality, survival skills, culture, and lifestyle of the country that released the game. That's why we divided them into these groups. We will explain each group separately below.

Shooting-oriented games: this group includes types of games that involve military tactics, the siege of a well-known object, a fight between a soldier and a terrorist, murder, robbery, rape, and torture. The main attributes used here are a rifle, a machine gun, a tank, a sword, a dagger, and so on. There is no mercy in games of this kind – only principles such as cruelty, hatred, and the destruction of the enemy. Most often, children who are passionate or have particular temperaments are drawn to such games (A new format for concluding..., 2020).

Intellectual games: as the name suggests, these are games that improve a child's thinking. More precisely, we are referring to arithmetic, mathematics, and calculation-based games. In short, we can call them intellectual games. Studious, inquisitive, and quick-witted children are drawn to these games.

Ideological games are games related to the specific traditions of a particular nation. In particular, they are based on the representation of the culture, mentality, and customs of that people. Through this, a certain state seeks to promote its ideology among others. Such games are often played by devoted fans and by children who wish to develop into notable figures or demonstrate leadership qualities.

Games to pass the time: every time someone plays such a game, time simply passes. Everyone knows what they get out of it. Games in this category do not affect one's consciousness – they are easy to play, and no particular objective needs to be fulfilled. Children who are bored simply play these games to pass the time. We might also call this category by its alternative name: "boring games."

5. Conclusion

The transformation of Kazakh children's games into an electronic format is a topic that does not lose its relevance today. In addition, in the era of digitalization, children have moved away from traditional national games, and national games are being forgotten. In this regard, the factors hindering the recognition of national games among children were identified, new opportunities for the preservation and popularization of Kazakh children's games were proposed, and the nature of electronic games was analyzed. The research used methods of literature analysis, a questionnaire survey, the case method, and comparative analysis. As a result of the survey of parents and children, the advantages and disadvantages of the transformation of Kazakh children's games from a traditional form to an electronic format were demonstrated, and the main reasons why children are more interested in electronic games were revealed. A comparative analysis of the traditional and electronic forms of the Kazakh games "togyzkumalak" and "asyk atu" was carried out, with a description of the features of both. Examples from the works of earlier studies, foreign scientists, and domestic researchers were presented. We focused on the advantages

and disadvantages of electronic games today, and analyzed their features in educational and psychological terms.

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