



E-LEARNING ENVIRONMENT FOR CHILDREN IN REMOTE REGIONS

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ABSTRACT

A The solution for us Mongolians to preserve our nomadic heritage and support children's education is distance e-learning using information and communication technologies. The COVID- 19 pandemic has not only changed the learning and teaching style of many children, parents and teachers around the world, but also the need to reflect on and explore learning environments, programs and methods (Nasanbayar, 2020). UNESCO reported that 91.3 percent of students were unable to participate in classroom learning. In an online environment, even if the educator does not meet the child in person, training can be organized to assess and support the development of the child. Mellow (1996) creative environment in the development of creativity in young children in educational institutions; creative programs; It is noted that the teaching method of a creative teacher is of great importance. Children often express their subconsciousness, desires, feelings and ideas about the world around them in their works, so we chose the visual and creative activity of the kindergarten. In our study, we sought to explore the impact of the environment on children's creativity through classroom visual arts and e-learning. The experiment involved 108 children from 5 preparatory groups of kindergartens in the suburbs of Ulaanbaatar. Analysis of children's work by organizing classes on the topic "Autumn Season" in the classroom and online, taking questionnaires from parents, conducting focus group interviews with teachers, quantitative and qualitative calculation of the results. As a result of the study, it was concluded that during the classroom, the teacher played with the children in the open field, blowing the leaves, which created a real feeling, and in e-learning, the teacher showed his method through video, but it was not possible to create a sense of imagination in children. In the survey, 79.03% of parents from remote areas noted that the Internet speed is insufficient and that they lack digital tools. Thereafter, analyzing the strengths and weaknesses of in classrooms and e-learning resulted in the need for blended and hybrid learning and a need to create e-content that is relevant to course objectives and to have a learning resource base.

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Introduction

One of the manifestations of the transition to the digital age in human development is the use of electronic or distance learning technology. The advancement of technology has enriched educational materials with interactive features, making learning more active, interesting, and accessible, regardless of time and space. Traditional learning methods have evolved over

time, incorporating step-by-step training through blended and hybrid approaches. Blended learning, as defined by Bliuc et al. (2007) and Colis & Moonen (2001), combines computerized online learning with traditional classroom methods, bridging the gap between traditional, classroom-based learning and online environments.

During the height of the pandemic, a staggering 91.3 percent of students worldwide were unable to attend physical classrooms and had to rely on online or alternative forms of education. In certain countries, education even came to a halt. Consequently, the demand for e-learning experienced a significant surge (Nasanbayar, 2020). Children now have the opportunity not only to engage with computers and electronic devices but also to access information and receive education. Even without in-person interactions, teachers can assess children's development and facilitate their learning remotely. For children, there is an advantage in being able to participate in continuous training within the comforts of their own family environment, deepening their knowledge, and seeking guidance from their teachers whenever they need it. It is crucial for teachers to create activities, spaces, allocate time, and establish a conducive material environment to ensure that lesson content is fully embraced by their students (Wong, 1998).

In many countries worldwide, early childhood development places emphasis on process-oriented learning rather than traditional academic methods. Recognizing the significance of the environment in facilitating children's natural development, it is crucial to create electronic content that accommodates their individual differences.

Researchers assert that drawing serves as more than a means for children to express their thoughts and emotions; it also encompasses purposeful storytelling, active representation of reality, and integration with verbal communication (Vygotsky, 1962). Furthermore, scholars have highlighted the connection between children's creativity, their ability to articulate their thoughts through drawing, and their relationships (Elizabeth Coates & Andrew Coates, 2002, 2004, 2006). Additionally, it has been observed that social and cultural variations in the environment influence children's imagination (Cecilia Caiman & Iann Lundega, 2018). These findings suggest that children's drawings can serve as a valuable tool for respectfully listening to and understanding their ideas.

Mellow (1996) highlights the significance of a creative environment in fostering early childhood creativity within educational settings. The author emphasizes the importance of a

creative teacher's instructional approach. Through drawings, children have the ability to manifest their subconscious thoughts, desires, feelings, and understanding of the world around them. The content of their drawings is rooted in their sensory experiences and imagination. The act of drawing for children is essentially a process of "reflection and recall" (Serin, 2003). Alongside the physical and psychological development of children, the environment they are in plays a crucial role in shaping their experiences and influences their creative expression.

Researchers have established that variations in children's cognitive, physical, and social development are significantly influenced by their social and familial environments. When it comes to early childhood development and learning, particularly in the context of online education, the involvement of families and caregivers becomes crucial. Factors such as family income, housing conditions, and parental education levels play a secondary role compared to the persistence, beliefs, relationships, attitudes, and environmental circumstances of parents and guardians. These factors have a substantial impact on the successful learning outcomes and overall development of children (Jadambaa, Byambaceren, et al., 2022, p. 167).

In our study, we have analyzed and interpreted the responses from parents and guardians regarding the extent to which the online visual arts course supports the comprehensive development of children. Comprehensive development encompasses a contemporary educational approach that takes into account the interconnectedness of a child's mental, physical, and emotional aspects. This method emphasizes the holistic process of child development by considering the interplay between biological, cognitive, social, and cultural factors (Turtohtoh, Boldsuren, Hajidmaa, 2020, p.8).

Research Objectives:

To investigate the impact of classroom and online learning environments of visual arts in kindergarten on children's creations.

To examine the environmental conditions, including the family environment, technical issues, and time allocated for online courses.

To identify the challenges faced by teachers in implementing classroom and online teaching methods.

To explore the advantages and disadvantages of classroom and online learning in the context of visual arts education.

To examine the changes in the imaginative process due to limited opportunities for tactile experiences.

Research Methodology:

The study will involve 108 children from 5 kindergarten preparatory groups, their parents/guardians, and 12 kindergarten teachers in Bagahangai District, Nalaih District, Khuvsugul Province, and Umnogovi Provinces. The research will be conducted between October and December 2022.

Data collection will be done through questionnaires administered to parents and teachers using Google Forms. The questionnaires will cover various aspects such as environmental conditions, challenges faced by teachers, and the impact of classroom and online learning on children's creations.

The collected data will be analyzed using appropriate statistical methods to determine the effects of classroom and online learning environments on children's artistic creations. The findings of the study will provide insights into the advantages and disadvantages of each learning environment and shed light on the changes in the imaginative process caused by limited tactile experiences.

Research process and results:

Art classes were organized online and in classrooms according to the kindergarten curriculum. The study combined the examination of the effects of the environment on children's creations, the challenges faced by parents in implementing electronic lessons, and a focus group interview with kindergarten teachers on the topic of "Problems facing electronic and classroom learning."

Classroom and online visual arts lessons were conducted on the theme of "Autumn leaves." In the classroom training, the teacher introduced the shapes, images, colors, and sounds of leaves in the outdoor field to engage the class, and they played with fallen leaves on the ground.

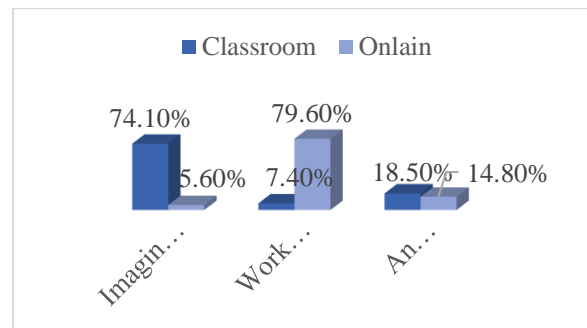
On the other hand, in the e-learning course, leaf drawing methods were demonstrated through videos and video presentations about leaves. Children's works from these two lessons were analyzed from two perspectives:

Visual representation: [Data]
(description of the analysis of visual aspects of the children's works)

Quantitative research: [Data]
(description of the quantitative analysis assessing the project's performance, considering the impact of the environment)

Chart 1.

Analysis of children's works



- When considering children's works in terms of images, it was observed that 74.1% of the works created during classroom training were fictional pieces depicting play with leaves in the outdoor field. In contrast, 79.6% of the works created during e-learning were solely based on the drawing method taught by the teacher. This suggests that during classroom training, the teacher's interaction with the children, such as blowing leaves in the outdoor field, provided a sense of reality and inspired their imagination. However, in the e-learning setting, the use of videos and pictures presented by the teacher fell short in stimulating the children's imagination.

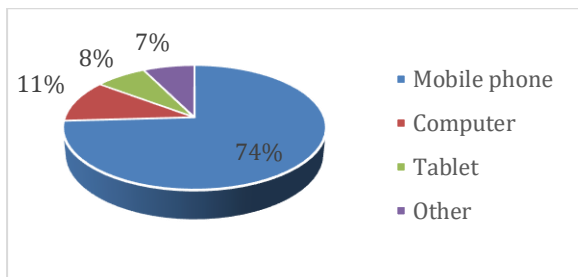
- Considering the impact of the environment on children's artwork created in the classroom and during e-learning, it was found that the performance in the classroom setting was 41.2% higher compared to e-learning. The advantage of the classroom environment lies in the opportunity for children to learn from each other and engage in live communication. Conversely, the performance of artwork created during online lessons was 40.7% lower than in the classroom,

with 14.8% of students not achieving successful results. This discrepancy can be attributed to various factors, including late timing of e-lessons, reliance on smartphones, and varying internet speeds. Additionally, upon observing the online lessons, it was noted that they were primarily structured in a model-driven manner, lacking a focus on fostering children's creativity.

Parents and guardians were surveyed to determine the challenges their children faced when participating in visual arts lessons at home, and the results were analyzed accordingly.

Chart 2.

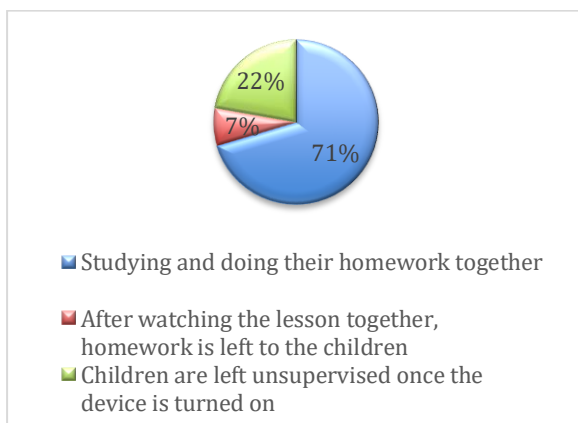
Results of the questionnaire "What device did your child use during e-learning?"



In the aforementioned questionnaire, it is evident that the majority of children (74%) engage in studies at home, primarily utilizing smartphones. While mobile phones are convenient to use, the small screen size often hinders the child's ability to concentrate on the teacher's presentation. Furthermore, parents expressed concerns about the lack of sufficient learning opportunities, as not every family possesses an adequate number of computers for their children.

Chart 3.

Results of the survey "How have you helped your child's online lessons?"



The parents' willingness to support and assist their child's visual arts e-learning course was demonstrated as follows:

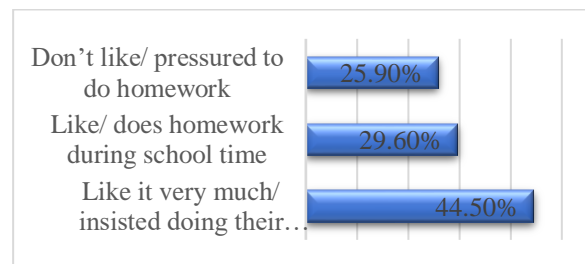
71% of parents actively participated and co-completed the e-learning course with their child, providing support and assistance throughout the lessons.

22% of parents allowed their children to study independently, either due to time constraints or the belief that their child can handle the coursework on their own.

7% of parents watched the online course together with their child and then followed up by guiding and supporting their child based on the content presented by the teacher.

Chart 4.

The results of the questionnaire "What time did your child study online?"



According to the above questionnaire, it was observed that some parents tended to work with their children on the visual arts e-learning course during their own free time, without considering the optimal timing for their child's learning and creativity. The following observations were made:

29.6% of the tasks were completed between 18:00 and 20:00, which indicates that parents often engaged with their children in the evening hours.

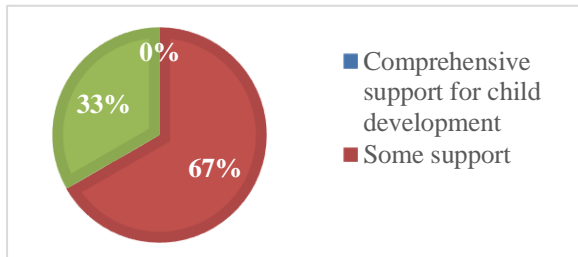
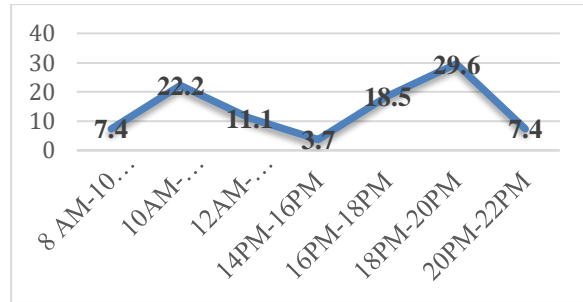
7.4% more tasks were completed between 10:00 and 12:00, suggesting that some parents allocated time for their child's e-learning course during the morning hours.

It was noticed that the child's sleeping schedule had an impact, with 3.7% of tasks completed between 14:00 and 16:00, and 7.4% between 20:00 and 22:00. These time periods may coincide with the child's resting or bedtime, which can affect their ability to think and create effectively.

It is important for parents to consider their child's receptiveness and optimal learning times, rather than solely focusing on their own free time, to ensure that the child can fully engage and benefit from the e-learning experience.

Chart 5.

Results of the survey "Did your child like his online lessons?"



Children's attitude towards e-learning is indeed influenced by various factors, including time planning and availability of necessary supplies. According to the chart mentioned earlier, it was observed that 25.9% of the children either did not like the e-learning experience or only engaged in it when required. This suggests that there may be certain challenges or limitations that affect their enthusiasm and motivation.

Additionally, some parents mentioned the lack of art supplies at home, which can also impact a child's engagement and enjoyment of the art class. Having access to the necessary materials is important for children to fully participate and express their creativity.

Furthermore, it is worth noting that art classes hold significance for children as they get the opportunity to showcase their creations to their families, which can instill a sense of pride and boost their self-confidence. The act of sharing their artwork with others and receiving positive feedback can greatly contribute to their overall development and sense of achievement.

Chart 6.

The results of the questionnaire "Whether the e-lesson prepared by the teacher was able to support the comprehensive development of children".

Parents expressed varying opinions regarding the extent to which the teacher-prepared e-courses supported their child's holistic development. While 66% of the parents found them somewhat supportive, there was disagreement among parents regarding the effectiveness of the e-courses in fostering independent thinking and imagination. It was noted that the e-learning approach predominantly relied on imitation or prescribed methods, lacking tasks that encourage children to think and imagine on their own.

To gain further insights, a focus group interview was conducted with the teachers of the kindergarten. During the interview, teachers discussed the challenges and advantages associated with both e-learning and classroom learning. The feedback provided by the teachers was compiled and organized in Table 1, which outlines the common responses regarding the advantages and disadvantages of each learning method.

Table 1: Advantages and Disadvantages of Classroom and E-Learning

	Classroom	E-learning
Advantages	<ul style="list-style-type: none"> Organizing trips and picnics related to the subject, allowing for observation and hands-on experiences. Providing opportunities for children to make choices and decisions during 	<ul style="list-style-type: none"> Activating cooperation between parents and teachers. Allowing parents to observe each lesson, which ensures consistent expectations for children from both parents and teachers.

	<p>the art-making process.</p> <ul style="list-style-type: none"> • Facilitating learning through peer interaction, where children can learn from each other, seek help, and express their ideas. 	<ul style="list-style-type: none"> • Enabling collaborative lesson and activity preparation with assistant teachers. • Making the modeled approach more feasible for teaching purposes. 		<ul style="list-style-type: none"> • Challenges for parents and guardians in supporting and assisting their children due to a lack of knowledge about each activity in the kindergarten. 	<p>Inability to experience motivation in learning, as the online environment may lack the same level of excitement and interaction as in-person classroom settings.</p> <ul style="list-style-type: none"> • The child's limited ability to make decisions and choose materials during the learning process, as they may be dependent on the resources provided through e-learning platforms. • Many online lessons are observed to be prepared in a simulated way, focusing on delivering content rather than actively fostering and developing children's creativity.
<p>Disadvantages</p>	<ul style="list-style-type: none"> • Difficulty in providing individualized advice to each child due to large group sizes. • Limited lesson time, which reduces opportunities for children to revise and improve their understanding. 	<ul style="list-style-type: none"> • Variation in the availability and usability of technology among students and their families. • Lack of knowledge and skills in preparing interactive lessons, which can hinder effective teaching and learning experiences. • The relationship attitude of parents and their potential neglect of kindergarten lessons, which can impact children's engagement and progress. 			

Research Findings:

The research findings suggest the following key points:

E-learning vs. Classroom Training:

During e-learning, a significant majority (79.6%) of children's drawings were created solely based on the teacher's instructions, while during classroom training, 74.1% of children's works expressed their real feelings. This highlights the importance of creating a supportive environment that allows children to express their creativity.

Supporting Children's Creativity:

To support children's creativity, the research emphasizes the need for a conducive environment that promotes cooperation between parents and teachers, consistent expectations, age-appropriate materials, and a well-planned schedule. These factors contribute to fostering creativity in children.

Advantages and Disadvantages of Classroom and E-learning:

Both classroom training and e-learning have their advantages and disadvantages. It is recommended to organize blended and hybrid learning approaches that combine the strengths of both methods.

However, the research highlights the need for teachers to adapt their methods and create electronic content that aligns with the course objectives while also integrating it effectively with classroom learning.

Overall, the findings underscore the significance of creating a supportive and engaging learning environment that encourages children's creativity, promotes collaboration between parents and teachers, and utilizes a balanced approach combining classroom and electronic learning methods.

Reference

- Batdelger, J., Battuya, Ts., Narantsetseg, Ts., Oyuungerel, Ts., Gyertuya, T., Bayarjargal, B., & Erdenetsetseg, G. (2013). *Early Childhood Psychology*. UB: BCI Printing.
- Jadambaa, B., Byambatseren, G., Bayarmaa, G., Bat-Otgon, B., Tserennadmid, Sh., & others. (2022). *Classroom Management for Student Diversity*. UB: Soyombo Printing.
- Nasanbayar, B. (June 8, 2020). *Epidemics and Education*. Free link: <https://jargaldefacto.com/article/tsar-takhal-ba-bolowsrol>
- MNUE. (2021). (red.Luvsandorj, Ts., Altangoo, O). *E-Learning Guide*. Ulaanbaatar
- Tortogtoh, B., Boldsuren, B., Hajidmaa, D. (2020). *Methodology to Comprehensively Support the Development of Young Children*. UB.
- Tseden-Ish, D., Munkhmandah, Ts. (2017). *Fine Art Teaching Theory and Method*. UB: Soyombo Printing.
- Komarova, T.S. (2010). *Isobrazitel'naya Activity in Children's Garden*. Moscow: Mosaic-Synthesis.
- Gonzales, M. (2016). *Basics of Early Childhood Education*. (trans. Narantsetseg, D et al.). Ulaanbaatar.

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