BG Pulse Journal USA
ISSN:1947-2536 http://www.bgpulseusa.com/index.php/bg
BG PULSE JOURNAL

# THE IMPACT OF DISTANCE LEARNING ON THE COGNITIVE AND SOCIAL DEVELOPMENT OF PRIMARY SCHOOL STUDENTS

**Niyozqulov Mirjalol Baxtiyorovich**
Associate Professor, Qarshi International University;
PhD in Pedagogical Sciences
e-mail: mirjalolniyozqulov778@gmail.com
ORCID: https://orcid.org/0009-0005-1209-2066
Doi: https://doi.org/10.5281/zenodo.22951028

**Abstract:** This article examines the pedagogical and psychological aspects of distance learning's impact on the cognitive and social development of primary school students. In the context of the widespread integration of information and communication technologies, distance learning has gained significant importance. The study explores how distance learning affects students' cognitive processes, including thinking, attention, memory, and independent learning skills. Additionally, it analyzes the effects of distance learning on students' social development, their communication skills, and their ability to work in teams. The article highlights both positive and negative aspects of distance learning and provides recommendations for enhancing the effectiveness of educational practices for primary school students.

**Keywords:** distance learning, primary education, cognitive development, social development, learning process, information and communication technologies, independent thinking, learning effectiveness, online education, pedagogical approach.

**Аннотация:** В статье рассматривается педагогический и психологический аспект влияния дистанционного обучения на когнитивное и социальное развитие учащихся начальной школы. В современных условиях активного внедрения информационно-коммуникационных технологий дистанционное обучение приобретает особую значимость. Исследование охватывает влияние дистанционного обучения на когнитивные процессы школьников, такие как мышление, внимание, память и навыки самостоятельного обучения. Кроме того, анализируется воздействие дистанционного обучения на социальное развитие учащихся, их коммуникативные способности и умение работать в команде. В статье рассматриваются положительные и отрицательные стороны дистанционного обучения и предлагаются рекомендации по повышению эффективности образовательного процесса для учеников начальных классов.

**Ключевые слова:** дистанционное обучение, начальная школа, когнитивное развитие, социальное развитие, учебный процесс, информационно-коммуникационные технологии, самостоятельное мышление, эффективность обучения, онлайн-обучение, педагогический подход.

**Annotatsiya:** Ushbu maqolada boshlang‘ich ta’lim tizimida masofaviy o‘qitish jarayonining o‘quvchilarning kognitiv va ijtimoiy rivojlanishiga ko‘rsatadigan ta’siri ilmiy-pedagogik jihatdan tahlil etiladi. Zamonaviy ta’lim muhitida axborot-kommunikatsiya texnologiyalarining keng joriy etilishi masofaviy ta’limning ahamiyatini oshirmoqda. Tadqiqot davomida masofaviy o‘qitishning

o‘quvchilarning tafakkur jarayonlari, mustaqil fikrlash, diqqat va xotira kabi kognitiv ko‘rsatkichlariga ta’siri o‘rganiladi. Shuningdek, o‘quvchilarning ijtimoiylashuvi, muloqot ko‘nikmalari va jamoada ishlash malakalariga bo‘lgan ta’siri ham yoritiladi. Maqolada masofaviy ta’limning ijobiy va salbiy jihatlari tahlil qilinib, boshlang‘ich sinf o‘quvchilari uchun samarali o‘qitish usullarini takomillashtirish bo‘yicha taklif va tavsiyalar ishlab chiqiladi.

**Kalit so‘zlar:** masofaviy ta’lim, boshlang‘ich ta’lim, kognitiv rivojlanish, ijtimoiy rivojlanish, o‘quv jarayoni, axborot-kommunikatsiya texnologiyalari, mustaqil fikrlash, ta’lim samaradorligi, onlayn ta’lim, pedagogik yondashuv.

**Introduction.** One of the main tasks of primary education is to ensure the cognitive and social development of students. Cognitive development is the process of forming students’ abilities in thinking, attention, memory, analysis, and problem-solving, while social development includes the development of their communication, cooperation, understanding of social rules, and ability to work effectively in a team. The widespread use of information and communication technologies in the modern educational process has created new opportunities for the development of distance learning [2; 5].

Distance learning (DL) is a form of implementing the educational process in which students and teachers are not physically present in the same location and which enables learning through online platforms, electronic resources, and interactive tools [9]. In recent decades, the number of studies related to the development of DL has increased, and issues concerning its impact on cognitive and social development have become the focus of scientific attention [1; 9]. In particular, the effectiveness of DL for primary school students and its pedagogical foundations have attracted attention as a relevant issue because children of this age require more visual, practical, and interactive methods in the learning process [2; 5].

The impact of distance learning on cognitive development has been studied through numerous studies in the scientific literature. For example, interactive platforms and virtual laboratories are used as effective tools for developing students’ independent thinking, concentration, and memory functions in distance learning conditions [2; 5]. At the same time, the issue of social development is also important, and communication among students, group work, and the formation of social skills may be limited under distance learning conditions [3; 4].

Today, the study of the impact of distance learning on cognitive and social development in primary education is one of the relevant scientific issues requiring investigation. This article analyzes the pedagogical and psychological impact of distance learning on primary school students and develops recommendations for increasing its effectiveness [1; 9]. In this way, practical measures aimed not only at students’ level of knowledge but also at the development of independent thinking, creative abilities, and social skills can be developed.

**Research Methodology and Methods**. This study is aimed at determining the impact of distance learning on cognitive and social development among primary school students. The research methodology is based on scientific approaches in the fields of pedagogy, psychology, and educational technologies and combines theoretical and empirical methods [1; 2; 9]. Using a scientific-analytical approach, existing scientific literature, articles, and experimental studies concerning the pedagogical and psychological foundations of distance learning and its impact on the cognitive and social development of primary school students were analyzed. The experimental approach made it possible to identify changes in students’ knowledge, skills, and social behavior during the distance learning process.

The study employed theoretical methods, including the study and analysis of literature, as well as methods of drawing general conclusions through comparison of various studies and experiences. Empirical methods included observation, questionnaires, tests, and interviews. Through observation, students' activities and communication skills during the distance learning process were recorded. Tests and questionnaires were used to assess cognitive skills, including concentration, memory, and thinking abilities, as well as indicators of social development, including communication and teamwork skills. Through interviews, the opinions of teachers and parents regarding the changes observed during the distance learning process were collected.

Statistical methods were also used to analyze the data obtained. Through these methods, cognitive and social development indicators based on observation and test results were studied, and their relationship with distance learning was identified. Primary school students were selected as the object of the study, while the impact of distance learning on their cognitive and social development was selected as the subject. Students aged 7–10 years, their teachers, and parents were involved as participants in the study.

As a result, the research methodology and methods made it possible not only to determine the effectiveness of the distance learning process but also to develop practical recommendations for the formation of cognitive and social development among primary school students.

**Research Results.** The research results were analyzed on the basis of empirical data aimed at determining the impact of distance learning on the cognitive and social development of primary school students. The results of the observations showed that students' concentration and independent working skills developed under distance learning conditions. Through online interactive lessons, tests, and electronic resources, students improved their ability to think independently and solve problems. At the same time, it was determined that the effectiveness of cognitive processes depended on students' age, the form of lesson organization, and the level of technology use.

However, the study showed that indicators of social development were limited in some cases in distance learning. For example, communication among students, teamwork, and mutual assistance skills developed at a lower level compared with face-to-face education. This situation is consistent with studies demonstrating the importance of ensuring social presence and interaction in distance learning.

The results of interviews and questionnaires showed that teachers emphasized the need to use special group work and interactive exercises more frequently in distance lessons in order to encourage students' social activity. At the same time, parents noted that they play an important role in developing students' ability to work independently at home and use technology correctly.

The results of the statistical analysis also demonstrated a positive impact of distance learning on cognitive development. Students' test results were slightly higher compared with the average indicators in face-to-face education, and an increase in concentration, memory, and thinking abilities was observed. At the same time, significant differences were found in social development indicators, and it was determined that additional pedagogical approaches were necessary to strengthen social skills under distance learning conditions.

The results showed that distance learning can be effective in the cognitive development of primary school students, but additional measures and interactive methods are required in terms of social development. At the same time, the study demonstrated the importance of students' motivation, their level of technology use, and effective cooperation with teachers and parents in ensuring the effectiveness of the distance learning process.

**Discussion.** The research results showed that distance learning has a positive impact on the cognitive development of primary school students. Students' concentration, memory, and thinking abilities can be improved through online interactive lessons. This is consistent with scientific views highlighting the potential of digital educational technologies in the educational process [2; 5].

However, the study showed that distance learning may have less impact on social development than face-to-face education. Certain limitations were observed in students' group work, communication, and teamwork skills. This situation demonstrates the importance of pedagogical approaches aimed at ensuring social presence and cooperation in online learning [4].

The research results also showed that students' age characteristics, the level of technology use, and the level of cooperation with parents and teachers influence the effectiveness of distance learning. This indicates the need for an individual approach and parental cooperation for the effective organization of distance learning [2; 5].

The results also have a direct impact on pedagogical practice. Students' cognitive skills can be developed through the use of distance learning programs and interactive platforms, but group work, virtual collaborative activities, and a mentoring system are recommended to strengthen social skills. At the same time, it is important for teachers to have special methodological skills in effectively organizing the distance learning process and motivating students [1; 2].

In conclusion, the study showed that distance learning can produce positive results in the cognitive development of primary school students, while additional pedagogical approaches are required for social development.

**Conclusion.** This study was aimed at investigating the impact of distance learning on the cognitive and social development of primary school students. The results of the study showed that distance learning can be an effective tool for developing students' cognitive skills, such as concentration, memory, thinking, and independent thinking. Online interactive lessons, electronic resources, and tests play an important role in increasing students' level of knowledge and encouraging independent learning.

At the same time, the study showed that social development indicators may be lower under distance learning conditions than in face-to-face education. Additional pedagogical tools are required to develop students' communication, teamwork, and cooperation skills.

Based on the study, the following recommendations were developed:

To use interactive, visual, and practical activities to stimulate students' cognitive development during the distance learning process.

To introduce virtual collaborative activities, group sessions, and a mentoring system to strengthen social development skills.

To provide teachers with special methodological training on the effective organization of distance learning.

To involve parents in developing students' skills in working independently at home and using technology correctly.

To develop distance learning programs by taking into account individual approaches and age characteristics.

Overall, the study showed that distance learning can produce positive results in the cognitive development of primary school students, while additional pedagogical measures are required for social development. This creates an opportunity to organize the educational process in a more effective and integrated manner.

**References**

1. Anderson, T., & Dron, J. (2011). Three generations of distance education pedagogy. *International Review of Research in Open and Distributed Learning, 12*(3), 80–97.
2. Bates, A. W. (2015). *Teaching in a Digital Age: Guidelines for Designing Teaching and Learning*. Vancouver: Tony Bates Associates Ltd.
3. Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to coronavirus pandemic. *Asian Journal of Distance Education, 15*(1), 1–6.
4. Garrison, D. R., Anderson, T., & Archer, W. (2010). The first decade of the Community of Inquiry framework: A retrospective. *The Internet and Higher Education, 13*(1–2), 5–9.
5. Kozma, R. B. (2003). Technology and classroom practices: An international study. *Journal of Research on Technology in Education, 36*(1), 1–14.
6. Moore, M. G., Dickson-Deane, C., & Galyen, K. (2011). E-learning, online learning, and distance learning environments: Are they the same? *The Internet and Higher Education, 14*(2), 129–135.
7. Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon, 9*(5).
8. Salmon, G. (2013). *E-tivities: The Key to Active Online Learning*. London: Routledge.
9. UNESCO. (2020). *Education: From disruption to recovery*. Paris: United Nations Educational, Scientific and Cultural Organization.
10. Zamfir, C., & Popescu, I. (2021). E-learning in primary education: Effects on cognitive development. *Procedia Computer Science, 192*, 678–685.
11. Smith, P., & Abouammoh, A. (2020). *Distance Education in the Digital Era: Challenges and Opportunities*. London: Routledge.