# FORMATION OF STUDENTS' READING COMPETENCE IN THE CONDITIONS OF INTEGRATED LEARNING

## FORMAÇÃO DA COMPETÊNCIA DE LEITURA DOS ALUNOS NAS CONDIÇÕES DE APRENDIZAGEM INTEGRADA

### Olena Stepanenko 🗓

Communal Institution of Higher Education "Dnipro Academy of Continuing Education" of Dnipropetrovsk Regional Council Dnipro, Ukraine <u>olena.step@ukr.net</u>

#### Svitlana Trubacheva 匝

National Academy of Educational Sciences of Ukraine Kyiv, Ukraine <u>trubachevas@gmail.com</u>

### Mykola Suriak 匝

Lesya Ukrainian Volyn National University Lutsk, Ukraine <u>suriakmukola@gmail.com</u>

### Pavlo Sirenko<sup>®</sup> Latvian Academy of Sport Education Riga, Latvia pavlo.sirenko@lspa.lv

#### Iryna Vlasiuk 🔟

Ternopil Volodymyr Hnatiuk National Pedagogical University Ternopil, Ukraine vlasiukvi@outlook.com

Abstract. The modern global education system is undergoing significant changes due to globalization and integration, the development of innovative technologies, and the emergence of new approaches, teaching methods, new concepts and trends in the educational sphere. The issue of developing communicative competence, which includes the ability to express concepts, thoughts, feelings, facts and views through forms of language activity and, in particular, through reading and its interpretation, is particularly relevant. Given the outlined above, the problem of introducing innovative methods of teaching reading into the practice of a modern primary school is of particular relevance nowadays. Dynamic effective reading is extremely significant since teaching students to read correctly in a timely manner is the first step in achieving the main goal of teaching children to read thoughtfully, silently and at an acceptable level of dynamic reading as the basis for independent understanding of the information space and the environment in general. The purpose of the academic paper is to determine the place of the student's reading competence in the system of pedagogical and educational objectives, to outline the features of developing this type of skill based on the results of psychological, pedagogical, theoretical, literary and methodological studies of students' reading activity conducted by scientists. In addition, the research aims to outline the key trends in modern scientific studies on developing reading competence, as well as to highlight the features of effective development of students' reading competence in the conditions of integrated learning. In the course of the research, the analytical and bibliographic methods and the method of system analysis were used to study the concept and structure of forming the reading competence. Along with this, analysis, synthesis of information, detailing and comparison were applied to identify the major features of reading skills with a focus on their development in integrated learning. Moreover, logical and linguistic methods, abstraction and idealization were used to study and process the results of research by domestic and foreign scientists on the formation of primary school students' reading competence. Based on the research results, the main most important theoretical aspects of the issue of forming students' reading competence, namely, the concept and structure of this type of skill, have been established. Another significant target direction of the scientific article is studying scholars' viewpoints on the key modern vectors of the process of teaching reading.

Keywords: competent reader, reading competence, structure of teaching reading, innovative methods of teaching reading, integration of learning activities, integrated training courses.

**Resumo.** O moderno sistema educacional global está passando por mudanças significativas devido à globalização e integração, ao desenvolvimento de tecnologias inovadoras e ao surgimento de novas abordagens, métodos de ensino, novos conceitos e tendências na esfera educacional. A questão do desenvolvimento da competência comunicativa, que inclui a capacidade de expressar conceitos, pensamentos, sentimentos, factos e pontos de vista através de formas de actividade linguística e, em particular, através da leitura e da sua interpretação, é particularmente relevante. Face ao exposto, o problema da introdução de métodos inovadores de ensino da leitura na prática de uma escola primária moderna assume particular relevância nos dias de hoje. A leitura dinâmica eficaz é extremamente significativa, uma vez que ensinar os alunos a ler corretamente em tempo hábil é o primeiro passo para alcançar o objetivo principal de ensinar as crianças a ler pensativamente, silenciosamente e em um nível aceitável de leitura dinâmica como base para a compreensão independente da informação espaço e o meio ambiente em geral. O objetivo do trabalho acadêmico é



determinar o lugar da competência leitora do aluno no sistema de objetivos pedagógicos e educacionais, para delinear as características do desenvolvimento desse tipo de habilidade com base nos resultados de estudos psicológicos, pedagógicos, teóricos, literários e metodológicos. da atividade de leitura dos alunos conduzida por cientistas. Além disso, a investigação visa delinear as principais tendências nos estudos científicos modernos sobre o desenvolvimento da competência de leitura, bem como destacar as características do desenvolvimento eficaz da competência de leitura dos alunos nas condições de aprendizagem integrada. No decorrer da pesquisa, foram utilizados os métodos analítico-bibliográfico e o método de análise de sistemas para estudar o conceito e a estrutura de formação da competência de leitura. Paralelamente, foram aplicadas análise, síntese de informações, detalh amento e comparação para identificar as principais características das habilidades de leitura com foco no seu desenvolvimento na aprendizagem integrada. Além disso, métodos lógicos e linguísticos, abstração e idealização foram utilizados para estudar e processar os resultados de pesquisas de cientistas nacionais e estrangeiros sobre a formação da competência de leitura de alunos do ensino fundamental. Com base nos resultados da investigação, foram estabelecidos os principais aspectos teóricos mais importantes da questão da formação da competência de leitura dos alunos, nomeadamente, o conceito e a estrutura deste tipo de habilidade. Outra direção significativa do artigo científico é estudar os pontos de vista dos estudiosos sobre os principais vetores modernos do processo de ensino da leitura.

Palavras-chave: leitor competente, competência leitora, estrutura do ensino da leitura, métodos inovadores de ensino da leitura, integração de atividades de aprendizagem, cursos de formação integrados.

### INTRODUCTION

Various arguments have been put forward in favor of the special relevance of reading, which is currently becoming the systematic cornerstone for the evolution of the information society, at all phases of the social-political development of society. It is the reading competence that enables a person to effectively manage the growing flow of information and, taking into account their individual needs and the growing capabilities of the modern educational system, to form his own educational path. The acquisition of reading skills at primary school is an essential part of the learning process as a necessary basis for students to gain further knowledge.

The theoretical part of the present research substantiates the concept, relevance and essence of the process of forming reading skills at primary school. The academic paper provides a brief description of the basic cognitive processes of reading, which involve the perception of the text in its formal, semantic and intentional integrity.

The practical part of the research includes the evaluation of the types of exercises for the acquisition of reading skills by primary school students and the identification of integrated tasks provided by the primary school curriculum and aimed at developing the students' reading skills. The research provides statistical data on the results of assessing the success of the formation of primary school students' reading skills, which makes it possible to establish the dynamics of the pace and quality of developing the reading competence of primary school students.

Based on the research results, the conclusions on the issues raised were made. In particular, it has been established that, according to effective curricula, the acquisition of reading skills by students involves conducting three groups of exercises, namely, the exercises on perception of graphic images of words, development of speaking skills and correlation of written words with their meanings. At the same time, the communicative task of the educational process is to achieve reading comprehension, that is, to comprehend the connections and relations between the objects and phenomena presented in the content of the text.

#### LITERATURE REVIEW

Reading competence is not included in the list of key competencies defined by the requirements of the primary school curricula; however, it is included in other key competencies, namely "language fluency", "communication and good command of foreign languages", "lifelong learning" and others, where interaction with textual material is crucial. In addition, reading literacy can be considered as subject competence. The state standard of primary education in the vast majority of countries does not use the term "reading literacy" but includes reading comprehension to refer to the main basic competence of learning ability, which is part of all key competencies (Haleem et al., 2022; Ozcan, 2021).

Based on the analysis of psychological, pedagogical, theoretical, literary and methodological studies of a person's reading activity, reading literacy is defined as the ability to mobilize and apply a set of specific personal, cognitive, aesthetic, communicative and value mechanisms in order to effectively interact with the text, organize and carry out the implementation of reading skills. At the same time, it is important to emphasize that an effective combination of such mechanisms ensures the formation of integrated personal qualities necessary for further training of the education seeker. Reading literacy is not limited to its understanding only as a psychological or intellectual ability of a person, but it is determined by the success of the student's reading activity, his ability to perform a number of learning tasks and solve various problems, which is a crucial skill necessary to achieve a positive result of any type of activity in the future personal and professional development (Miñoza & Montero, 2019; Huang, Saleh & Liu, 2021; Tomas, Villaros & Galman, 2021).

Information reading literacy is defined as the ability of a person to analyze, interpret, critically evaluate information in texts of various types, styles and genres, use it for personal development and master the skills of independent and productive processing of various sources of information (work with the library's reference and bibliographic apparatus, reference literature, use of electronic library resources and websites, etc.). Therefore, reading competence is also interpreted as a personality's quality that can be expressed in the willingness and ability to independently acquire and apply reading-related knowledge and skills for learning activities and personal self-development (Stuart et al., 2023; Jakavonytė-Staškuvienė & Mereckaitė-Kušleikė, 2023; Alghonaim, 2020).

Several formulations are currently used to define the quality of a person who can work meaningfully and effectively with texts on paper and in electronic form in the scientific and methodological literature devoted to the process of reading, teaching reading and assessing the results of such learning, especially at the primary level. Such terms as "reading comprehension", "critical reading", "reading literacy", "reading competence", etc. often coexist and are interchangeable (Júnior et al., 2019; Drake &Reid, 2018).

As the analysis of interpretations of the reading competence concept shows, we often observe a tendency in the scientific, pedagogical and methodological literature to narrowly understand this concept as just literary reading literacy at primary school. It is obvious nowadays that primary school students' reading literacy should be considered as a more universal personal trait that allows them to work not only with fiction texts, but also with texts of other functional nature, which students encounter much more often in the real information society (Ponomarioviene & Jakavonyte-Staškuviene, 2022; Håland, Wagner & McTigue, 2021; Andersson & Palm, 2018).

### AIMS

The research aims to identify the key features of the system of teaching reading, and the functions of reading, and to highlight the main trends in the formation of reading literacy of primary school graduates. The practical part of the research involves a quantitative assessment of current trends in developing the reading competence of primary school students.

#### **MATERIALS AND METHODS**

A practical study of modern trends in developing the reading literacy of primary school students was carried out through statistical analysis, synthesis and generalization of data. The research is based on the results of studies conducted by the Ministry of Education and Science of Ukraine and the Center for Analytical, Methodological and Logistical Support for the Development of Educational Institutions of the Region, a municipal institution of the Ternopil Regional Council.

### RESULTS

While investigating the formation of students' reading competence in modern conditions, it is necessary to study the features of primary school curricula on teaching reading. According to the curricula in Ukraine, the practical system of teaching reading skills consists of three practical groups of exercises (Figure 1). As Figure 1 shows, the school curriculum enables one to distinguish between two main aspects of reading skills at primary school: technical and content.

Reading technique for primary school students includes a whole range of automated skills, which ultimately boil down to the rapid perception of graphic images of words and their automatic correlation with the sound images and meanings of printed words. The nature of texts, that is, their content, meaningfulness, interesting plot, etc. is of paramount importance for the development of sufficient reading skills. Students' motivation to read depends on the quality of the textual material.



Figure 1. Types of exercises for primary school students to acquire reading skills. Source: compiled by the authors on the basis of (Starahina, Tereshhenko & Panchenkov, 2020; Jakavonyté-Staškuvienė & Mereckaitė-Kušleikė, 2023).

The student has to guess the meaning of an unfamiliar word during reading based on the context, wordformation elements, and international words. Complex structures are analyzed; selective translation of individual phrases, sentences, paragraphs is possible. An important part of reading literacy is recognizing the most important content parts of a text, which requires students to create headings and a plan for the entire text.

Reading texts performs a number of functions contributing to successful language acquisition. In general, methods of forming reading skills distinguish several main functions of reading a text (Table 1):

Skills that are prerequisites for the effective development of students' reading competence	Integrated tasks aimed at developing reading skills
Enriching and expanding students' lexical knowledge	While reading, students are assigned the task of searching for certain words or phrases and figuring out their meaning
Learning skills	The goal of the training is to provide students with lexical and grammatical material, to practice reading skills, to use particular language materials when answering the teacher's questions, to freely reproduce the content or to retell it close to the text
Developing students' oral communication based on the text they have read	Retelling, continuing or creating a different beginning, talking about some of the issues raised in the text
Formation of skills of semantic perception of the text, its understanding	Tasks of this type are aimed at verifying comprehension of individual episodes or the entire text, as well as performing exercises that will help overcome difficulties in understanding the text

Table 1. Integrated tasks, provided by the primary school curriculum, aimed at developing students' reading skills.

Source: compiled by the authors on the basis of (Starahina, Tereshhenko & Panchenkov, 2020).

As can be seen from Table 1, the purpose of reading is formulated in the form of a communicative pre-text task. At the same time, the communicative objective is to achieve reading comprehension, that is, to understand the connections and relations between objects and phenomena presented in the content of the text. Studying current trends in developing students' reading competence, in the course of the present academic paper, the results of a study of the Center for Analytical, Methodological and Logistical Support for the Development of Educational Institutions of the Region, a municipal institution of the Ternopil Regional Council on the results of successful acquisition of reading competence in primary educational institutions of Ternopil region of Ukraine were analyzed (Figures 2-4).

Taking into account the study of the Center for Analytical, Methodological and Logistical Support for the Development of Educational Institutions of the Region, a municipal institution of the Ternopil Regional Council, it is worth noting that the reading scores of fourth-graders who studied in rural areas are more than 6 points lower than those of their peers who studied in cities of district subordination, and more than 17 points lower than those who studied in cities of regional significance. At the same time, the average results of primary school graduates on the external independent testing in reading in 2018 and 2021 do not differ significantly depending on the type of settlement.





Source: compiled by the authors on the basis of (KUTOR "Centr analitychno-metodychnoho ta materialnotexnichnoho zabezpechennya rozvytku osvitnix zakladiv oblasti", 2023).



Figure 3. Share of fourth-graders who demonstrated a high level of reading skills, %. Source: compiled by the authors on the basis of (KUTOR "Centr analitychno-metodychnoho ta materialnotexnichnoho zabezpechennya rozvytku osvitnix zakladiv oblasti", 2023).



**Figure 4.** Share of primary school graduates who did not pass the basic threshold of reading skills, %. Source: compiled by the authors on the basis of (KUTOR "Centr analitychno-metodychnoho ta materialno-texnichnoho zabezpechennya rozvytku osvitnix zakladiv oblasti", 2023).

Undoubtedly, the pandemic, which forced a part of fourth-graders to study remotely in 2021, affected their academic performance. Primary school graduates who have been studying remotely for a longer period of time achieve significantly worse results. As a result, the difference between the results of students who had been studying remotely for three to four months and students who had been studying remotely for less than a month is 7,6 points in math and 6,9 points in reading (KUTOR «Centr analitychno-metodychnoho ta materialno-texnichnoho zabezpechennya rozvytku osvitnix zakladiv oblasti», 2023).

Therefore, the analysis of the curricula and the assessment results of primary school graduates' reading literacy in one of the regions of Ukraine showed that, given the existing requirements for the development of success skills and the actual level of students' reading competence, primary school students possess generalized (integrative) reading-related skills (Table 2). As Table 2 shows, these skills include the ability to work with both literary sources and technical devices.

Table 2. Features of generalized (integrative) skills related to reading that prima	ry school students possess.
---	-----------------------------

Skills	Features of skills
Independent work with literature	Reading silently, selecting material from a particular text, identifying the main and secondary content in the text, memorizing, writing down what has been read, choosing a book using reference material (dictionaries, reference books)
Listening	Listening, reproducing, and extracting information from spoken recordings
Basic skills in working with technical devices	Work with information and communication tools, computer skills
Skills for evaluating text and its components	Formation of basic skills of mental activity: analysis, synthesis, comparison, specification, generalization

Source: compiled by the authors on the basis of (Starahina, Tereshhenko & Panchenkov, 2020).

All the practical skills listed in Table 2 are the result of the interaction of three types of learning: sensory perception, abstract thinking, and practice. In accordance with the requirements of learning activities, the teacher selects and combines various forms, methods and techniques of teaching that ensure the interaction of these components.

#### DISCUSSION

Currently, a competent reader, working with a text, should be able to find/perceive the necessary information, integrate and interpret it, analyze and evaluate it. Consequently, for a deeper understanding of all the categories that are commonly used to define the quality of a person who successfully works with a text, it is important to understand the essence of the main cognitive processes that a reader implements, and, therefore, to pay attention to the harmonious development of these cognitive abilities when teaching reading (Brackett et al., 2019), (Akimov, 2023).

Scientists' numerous studies convince us that reading is nowadays a necessary condition for the comprehensive development of a student's personality. Reading competence combines two main groups of skills: those that help convey the sound form of a word (formal reading) and those that are based on perceiving and understanding meaningful information in the environment (understanding data, analyzing it, interpreting it, drawing vital conclusions, etc.) (Lindeman, Svensson & Enochsson, 2021), (Magen-Nagar & Firstater, 2019), (Mertala, 2019).

The student's capacity to record and comprehend available language features, language tools, and text structure, as well as to analyze and evaluate the text's content, are all critical reading skills. A competent reader is a person who is able to carry out the reading process at the proper level, processing texts of different functional orientations (Allee-Herndon & Roberts, 2020), (Ernst & Reynolds, 2021).

One of the main responsibilities of a primary school teacher is to help students understand the value of books or other text formats and learn how to use them so that the education seekers can implement effective learning activities at the next level of studying and in their future life. In order to successfully cope with this challenging task, it is important for a teacher to understand the meaning of the terms "reading comprehension", "reading competence", "reading literacy", which are often used in the educational sphere, to deeply understand the essence of reading, the specifics of different types of texts and to know the features of working with them in the framework of activities with primary school students (Nilsson, Ferholt & Lecusay, 2018), (Heijden, Beijaard, Geldens & Popeijus, 2018),

Integration is one of the most promising innovations that can solve numerous problems of a modern primary school. Today, it is abundantly obvious that blended learning, like no other method, generates new frameworks for successful teacher and student performance. It also serves as a useful framework for stimulating thought and refining instructional strategies. Integration requires the use of different forms of learning, which positively affects the effectiveness of students' perception of educational material. It becomes a school of cooperation and interaction for all its participants: teachers, students and parents, helping to work together to achieve a common goal (Neuman & Powers, 2021), (Parker, 2022).

The evaluation of the features of human cognitive activity in reading makes it possible to assert that the main cognitive processes of reading are the perception of the text in its formal, semantic, and intentional integrity. Along with this, it should be borne in mind that reading involves searching for the information presented directly or indirectly, drawing simple conclusions based on the information contained in the text, interpreting and summarizing the information received, analyzing and evaluating the content of the text and the ways it is conveyed, including the language features and structure of the text (Forsling, 2021), (Enochsson & Ribaeus, 2021).

### **CONCLUSIONS**

Thus, the analysis of the scientific literature on the research topic has shown that the development of primary school students' dynamic reading skills is more effective if methods and techniques as well as interactive learning tools are used effectively. It is crucial for the teacher to choose the most relevant and interesting exercises for improving reading skills according to the child's preferences and personal developmental characteristics. Moreover, effective reading increases motivation for literary reading and other types of activities, activates students' cognitive activity, optimizes the entire process of perceiving new and unusual things, expands the range of material studied and vocabulary, develops willpower, trains imagination, and promotes the formation of skills and creative problems-solving.

### REFERENCES

- Akimov, N. et al. (2023). Components of education 4.0 in open innovation competence frameworks: Systematic review. Journal of Open Innovation: Technology, Market, and Complexity, 9, 2, 100037. Available at: <u>https://www.sciencedirect.com/science/article/pii/S2199853123001397</u>. https://doi.org/10.1016/j.joitmc.2023.100037
- Alghonaim, A. S. (2020). Impact of Related Activities on Reading Comprehension of EFL Students English Language Teaching; Vol. 13, No. 4. Available at: https://files.eric.ed.gov/fulltext/EJ1247943.pdf. https://doi.org/10.5539/elt.v13n4p15
- Allee-Herndon, K. A. & Roberts, S. K. (2020). The Power of Purposeful Play in Primary Grades: adjusting Pedagogy for Children's Needs and Academic Gains. *Journal of Education*, 201, 54-63. Available at: https://journals.sagepub.com/doi/full/10.1177/0022057420903272. https://doi.org/10.1177/0022057420903272
- Andersson, C. & Palm, T. (2018). Reasons for teachers' successful development of a formative assessment practice through professional development: A motivation perspective. Assessment in Education: Principles, Policy & Practice, 5(6), 576-597. Available at: https://www.tandfonline.com/doi/full/10.1080/0969594X.2018.1430685. https://doi.org/10.1080/0969594X.2018.1430685
- Brackett, M. A., Bailey, C. S., Hoffmann, J. D. & Simmons, D. N. (2019). RULER: A theory-driven, systemic approach to social, emotional, and academic learning. Educational Psychologist, 54(3), 144-161. Available at: <u>https://www.tandfonline.com/doi/abs/10.1080/00461520.2019.1614447?journalCode=hedp20</u>. https://doi.org/10.1080/00461520.2019.1614447
- Drake, S. M. & Reid, J. (2018). Integrated Curriculum as an Effective Way to Teach 21st Century Capabilities. Available at: <u>https://www.researchgate.net/publication/324250557\_Integrated\_Curriculum\_as\_an\_Effective\_Way\_to\_Teach\_21st\_Century\_Capabilities</u>. https://doi.org/10.30777/APJER.2018.1.1.03
- Enochsson, A.-B. & Ribaeus, K. (2021). Everybody has to get a chance to learn: Democratic aspects of digitalisation in preschool. *Early Childhood Education Journal*, 49, 1087-1098. Available at: <u>https://link.springer.com/article/10.1007/s10643-020-01117-6</u> https://doi.org/10.1007/s10643-020-01117-6
- Ernst, J. R. & Reynolds, A. J. (2021). Preschool instructional approaches and age 35 health and well-being. *Preventive Medicine Reports*, 23, 101498. Available at: <u>https://www.sciencedirect.com/science/article/pii/S2211335521001881?via%3Dihub</u>. https://doi.org/10.1016/j.pmedr.2021.101498
- Forsling, K. (2021). Children's Cultural Backpack and Preschool Education: A Design-Based Study in a Swedish Preschool. In L. Haas & J. Tussey (Eds.), Connecting Disciplinary Literacy and Digital Storytelling in K-12 Education (pp. 169-191). Hershey, PA: IGI Global. Available at: https://doi.org/10.4018/978-1-7998-5770-9.ch009.

- Håland, A., Wagner, Å. K. H. & McTigue, E. M. (2021). How do Norwegian second-grade teachers use guided reading? The quantity and quality of practices. *L1-Educational Studies in Language and Literature*, 21, 1-28. Available at: https://l1research.org/article/view/327. https://doi.org/10.17239/L1ESLL-2021.21.01.02
- Haleem, A., Javaid, M., Qadri, M. A. & Suman, R. (2022). Understanding he role of digital technologies in education: A review. Sustainable Operations and Computers, 3, 275-285. Available at: <u>https://www.sciencedirect.com/science/article/pii/S2666412722000137</u>. https://doi.org/10.1016/j.susoc.2022.05.004
- Huang, J., Saleh, S. & Liu, Y. (2021). A Review on Artificial Intelligence in Education. Academic Journal of Interdisciplinary Studies, 10, 3, 206. Available at: https://www.researchgate.net/publication/351470728\_A\_Review\_on\_Artificial\_Intelligence\_in\_Education. https://doi.org/10.36941/ajis-2021-0077
- Jakavonytė-Staškuvienė, D. & Mereckaitė-Kušleikė, I. (2023). Conditions for Successful Learning of Primary School Pupils in the Context of Integrated Education: A Case Study. *Interchange*, 54, 229-251. Available at: https://link.springer.com/article/10.1007/s10780-023-09489-5
- Jakavonytė-Staškuvienė, D. & Mereckaitė-Kušleikė, I. (2023). Conditions for Successful Learning of Primary School Pupils in the Context of Integrated Education: A Case Study. *Interchange*, 54, 229-251. Available at: https://link.springer.com/article/10.1007/s10780-023-09489-5
- Júnior, N. B., Faccin, K., Volkmer Martins, B. & Balestrin A. (2019). Knowledge-based dynamic capabilities for sustainable innovation: the case of the green plastic project. *Sustainability*, 11, p. 2392. Available at: <u>https://www.mdpi.com/2071-1050/11/8/2392</u>. https://doi.org/10.3390/su11082392
- KUTOR. Communal institution of the Ternopil Regional Council "Center for Analytical-Methodological and Material-Technical Support for the Development of Educational Institutions of the Region". Available at: https://rozvytok-osvity.te.ua/uchni-pochatkovykh-klasiv-staly-hirshe/
- Lindeman, S., Svensson, M. & Enochsson, A.B. (2021). Digitalisation in early childhood education: a domestication theoretical perspective on teachers' experiences. *Education and Information Technologies*, 26, 4, 4879-4903. Available at: <u>https://link.springer.com/article/10.1007/s10639-021-10501-7</u>. https://doi.org/10.1007/s10639-021-10501-7
- Magen-Nagar, N. & Firstater, E. (2019). The obstacles to ICT implementation in the kindergarten environment: Kindergarten teachers' beliefs. *Journal of Research in Childhood Education*, 33, 2, 165-179. Available at: https://www.tandfonline.com/doi/full/10.1080/02568543.2019.1577769. https://doi.org/10.1080/02568543.2019.1577769
- Mertala, P. (2019). Digital technologies in early childhood education: Aframe analysis of preservice teachers' perceptions. *Early Child Development and Care*, 189, 8, 1228-1241. Available at: <u>https://www.tandfonline.com/doi/full/10.1080/03004430.2017.1372756</u>. <u>https://doi.org/10.1080/03004430.2017.1372756</u>
- Miñoza, M. V. & Montero, M. A. (2019). Reading comprehensionlevel among intermediate learners. *Science International (Lahore)*, 31, 3,561-568. Available at: https://files.eric.ed.gov/fulltext/ED596833.pdf
- Neuman, M. J. & Powers, S. (2021). Political prioritization of early childhood education in low- and middle-income countries. *International Journal of Educational Development*, 86, October 2021. Available at: <u>https://www.sciencedirect.com/science/article/pii/S0738059321001115</u>. https://doi.org/10.1016/j.ijedudev.2021.102458
- Nilsson, M., Ferholt, B. & Lecusay, R. (2018). "The Playing-Exploring Child": reconceptualizing the Relationship between Play and Learning in Early Childhood Education. *Contemporary Issues in Early Childhood*, 19, 231-245. Available at: Available at: <u>https://journals.sagepub.com/doi/10.1177/1463949117710800</u>. https://doi.org/10.1177/1463949117710800
- Ozcan, M. (2021). Factors Affecting Students' Academic Achievement according to the Teachers' Opinion Submitted. *Education* Reform Journal, 6, 1. Available at: https://files.eric.ed.gov/fulltext/EJ1318651.pdf. http://doi.org/10.22596/erj2021.06.01.1.18
- Parker, R. Thomsen, B.S. & Berry, A. (2022). Learning Through Play at School A Framework for Policy and Practice. Frontiers in Education, 17, February 2022. Available at: https://www.frontiersin.org/articles/10.3389/feduc.2022.751801/full https://doi.org/10.3389/feduc.2022.751801
- Ponomariovienė, J. & Jakavonytė-Staškuvienė, D. (2022). Developing General and Subject Competences of Primary School Pupils in the Context of Integrated Education: the Case of one Lithuanian School. Journal of Education Culture and Society, 13(2), 659-680. Available at: https://jecs.pl/index.php/jecs/article/view/1450. https://doi.org/10.15503/jecs2022.2.659.680

- Starahina, I., Tereshhenko, V. & Panchenkov, A. (2020). New Ukrainian school: development of reading competence among primary school students in the system of integrated education: educational and methodological manual. Harkiv. Sonyashnyk, 176.
- Stuart, J., Castro, F., Gebelein, J. & Luis, S. (2023). Landscape Literature Review: The Inclusive Campus of the Future: Diversity, Equity, and Inclusion, Extended Reality, and Student Success in Minority-Serving Institutions. FIU Immersive Learning in Extended Reality Lab. Available at: https://ilxr.fu.edu/wpcontent/uploads/sites/89/2023/02/Inclusive-Campus-Landscape-Literature-Review.pdf
- Tomas, M., Villaros, E. & Galman, S. (2021). The Perceived Challenges in Reading of Learners: Basis for School Reading Programs. Open Journal of Social Sciences, 9, 107-122. Available at: https://www.scirp.org/journal/paperinformation.aspx?paperid=109033. https://doi.org/10.4236/jss.2021.95009.
- Van der Heijden, H. R. M. A., Beijaard, D., Geldens, J. J. M. & Popeijus, H. L. (2018). Understanding teachers as change agents: an investigation of primary school teachers' self-perception. *Journal of Educational Change*, 19, 347. Available at: https://link.springer.com/article/10.1007/s10833-018-9320-9. https://doi.org/10.1007/s10833-018-9320-9