Formation of Literary Competence of Junior Schoolchildren by ICT Tools

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The purpose of the academic paper lies in studying and providing an analysis of scientists' viewpoints, as well as opinions of primary school teachers and parents of education seekers regarding the features of developing literary competence of junior schoolchildren with the help of information and communication technologies.

In the course of the research, an analytical method was used to study and process scientific literature on the development of students' literary competence and the use of ICT in primary classes of general educational establishments, as well as a remote survey in order to fulfil the practical clarification of the features of developing literary competence of junior schoolchildren through the use of certain information and communication technologies.

Based on the results of the research conducted, the features of the process of formation and the effectiveness of using various types of ICTs for the development of individual components of the literary competence of education seekers in primary school were determined.

Keywords: analysis of a literary work (literary writing), tools for developing the perception of literature, information and communication technologies (ICTs), literary competence, literary concepts, multimedia tools

INTRODUCTION

One of the main tasks of a primary school teacher should be to educate the student's sense of a citizen, a creative personality with an inherent need "to communicate" with a book, to understand the content of what is read, to enjoy the beauty of artistic text and original artistic thought (Ocampo, 2018).

In connection with the development of literary education, the need to increase its quality and efficiency, the formation of cognitive and creative abilities of students, their competencies in using the latest ICTs is of particular importance (Armea, Castro, Llamado, Lotino, 2022), (Ocampo, 2021).

The relevance of the problem is determined by the presence of contradictions between the predominant use of the traditional forms and methods of training by teachers and the increasing demand to use innovations in the transfer of knowledge and stimulation of independent acquisition of information on the topic, its transformation and presentation by students, their acquisition of skills of the individual use of the project-based learning elements, a synergistic approach and the need to provide participants in the educational process with the opportunity to acquire information and communication competencies.

Tendencies in the development of the modern society, its pronounced computerization explain the necessity of wider using the information technologies in the sphere of education. Currently, an educated person, regardless of the profession and the specifics of the activity, should possess the skills to work with electronic means of processing and transmitting information.

In the theoretical part of the present research, the views of scientists regarding the features of the literary development of schoolchildren are presented; the concept of literary competence and its structural components are given; the elements of information and communication educational technologies are revealed; an overview of media education methods is provided. In addition, the role of using ICT tools in the teaching of literature is outlined; the description of the motivational factors of using the latest information technologies in the process of acquiring the literary competence of children of primary school age is given, as well as the main drivers in developing optimal models of a meaningful combination of traditional and information and communication technologies of education in the process of forming the theoretical and literary competence of junior schoolchildren.

The practical part of the research includes an overview of the impact of information and communication technologies on individual components of literary competence, the identification of the most effective types of activities of junior schoolchildren that can be implemented with the help of information and communication technologies. It also comprises methods of organizing their work on improving literary competence with the help of ICTs, which require additional refinement, the advantages of multimedia technologies in the formation of literary competence of junior schoolchildren, types of ICTs used in junior grades in the process of developing the literary competence of schoolchildren and such types of ICTs that should be applied more actively in primary school for developing the literary competence of junior schoolchildren.

Based on the results of the research, it has been established that of all the components of literary competence, it is most appropriate to focus on the development of the motivational, cognitive-active and communicative aspects of literary competence when using ICTs. The conducted analysis of the research results has shown that both in the opinion of primary school teachers and from the viewpoint of parents of junior schoolchildren, the most effective activities for the development of pupils of junior school age with the help of information and communication technologies are as follows: preparing a cover for a literary work, illustrations using ICT tools, selection of additional information, creation of an electronic database of the heroes of the piece of writing, analysis of the literary work and presentation of the results in the form of an original electronic product, such as crossword puzzle, quiz, filling in the blank, logical chain, etc., collected in a portfolio, etc. The research has proven that the majority of survey participants believe that such informational tools for classroom work as Internet research, the participation of student youth in reading magazines, games, quizzes on literary topics should be improved. The conducted analysis has made it possible to reveal that the introduction of multimedia software allows integrating different types of information (animation, graphics, text, etc.) into the educational process, visualizing abstract information through dynamic representations, simulating real processes and situations. According to the respondents'

viewpoints, in the primary grades, in the process of developing the literary competence, educational programs and pedagogical technologies of a creative nature are mostly used, while it is necessary to more actively use such tools as Internet resources, video and audio materials, interactive boards, etc. in the educational process.

LITERATURE REVIEW

The emphasis on the literary development of schoolchildren as one of the important theoretical problems of modern methodological science is connected with the special significance of literature for the linguistic and intellectual development of the individual, his self-affirmation and self-fulfilment (Magulod, 2018).

While reading a piece of writing, the child is involved in studying a specially organized text, artistic language, figurative drawing of life pictures, reflections of the author — with his special aesthetic form of world cognition. Its perception requires special reading and writing skills. Such skills determine the content of literary development, that is, the formation of a language sense, a sense of the sound beauty of the language, a sense of the imagery of the literary language, an emotional response to a poetic word, the ability to think in words and artistic images, empathize, show creativity (Tondeur, Aesaert, Prestridge, Consuegra, 2018).

The literary competence involves the formation of the fundamentals of theoretical and literary knowledge and the ability to use them (this is a practical familiarization with literary concepts, perception, and analysis of a literary work) (Adu-Yeboah, Amuah, Essilfie, Somuah, 2022).

The structural components of literary competence include literary propaedeutics (approaching younger schoolchildren to literary concepts), perception and analysis of a literary work (Abel & Alvarez, 2020).

In order to study the process of forming the literary competence of junior schoolchildren and improving their speaking skills in the process of literary development, it is necessary to strive to find an optimal approach to the organization of the educational process, which is grounded on the interrelationship between learning to read and working with a children's book and a basis that is able to ensure the simultaneous acquisition of literary knowledge and the improvement of oral skills (Albert, Santos & Vizmanos, 2018).

Fiction literature as well as children's literature reflects the inner world of a person – his thoughts, life, dreams, mood and aspirations. Children's books and fiction literature can really help every child to "find himself", to become a smart, loving person. However, it is possible if a primary student is taught to read a literary work (Bozkurt & Sharma, 2020).

A high level of literary competence indicates a person's level of development, his personal and social growth, the ability to value orientations.

As A. Cueva and E. Inga (2022) note, the modern development of education requires innovative approaches to teaching. From a scientific point of view, the use of modern educational tools can not only generate interest in the topic, but also play a leading role in the assimilation and processing of information.

X.L. Zheng, H.S. Kim, W.H. Lai, G.J. Hwang (2020) agree with this opinion, indicating the problem of uniformity in the process of using of a range of educational digital technologies. All this points to the need of developing the literary competence, a holistic worldview of schoolchildren thanks to the use of a wide range of Internet resources, information and communication technologies, integration links between subjects, interpersonal and collective cooperation.

Information and communication technologies of education are a set of methods and technical tools of implementing information technologies based on computer networks and means of ensuring an effective learning process (Memon, Jurin, Kwan, Jan, Sidnal, Nafi, 2021).

In order to form the appropriate level of literary literacy of junior schoolchildren and their full-fledged aesthetic perception of literary works at the lessons of literary reading, it is not necessary to use both traditional and modern methods of analysis of literary works (Sosa Díaz, Palau Martín, 2018).

From the viewpoint of T. Lucke, P.K. Dunn, M. Christie (2017), the following media education methods are suitable for this purpose, namely:

- Internet dialogue (communication via e-mail, chat, forum, Skype);

- Internet contests (organization of olympiads, contests, tests);
- Internet research (individual and collective search for literary, cultural, historical, bibliographic
 material directly related to the work of art, critical analysis of information, its structuring and
 preparation for presentation to other readers).

At the same time, according to the opinion of D. A. Wagner (2018), the formation of literary competence is most facilitated by working with hypertext (with an interactive multimedia table, etc.), studying youth magazines (participation of young students in reading magazines, participation in games, quizzes on a literary subject).

In order to form the literary competence of junior schoolchildren, it is worth choosing a system of effective pedagogical technologies and information products aimed at increasing the effectiveness of education (Tzafilkou, Perifanou & Economides, 2022).

AIMS

The purpose of the research lies in determining the standpoint of teachers and parents of junior schoolchildren regarding the effectiveness of using information and communication technologies for the formation of literary competence of primary students.

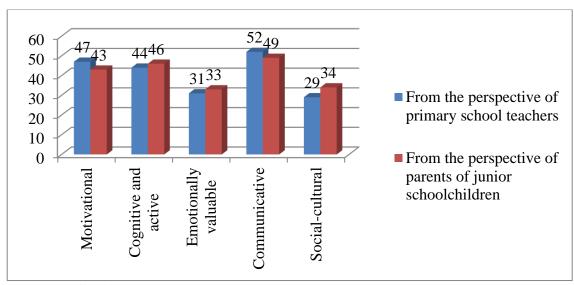
MATERIALS AND METHODS

The practical study of the features of using ICT tools in the process of developing the literary competence of junior schoolchildren of a general educational establishment was conducted by interviewing primary school teachers and parents of junior schoolchildren in Rivne, Kyiv, Lviv, Khmelnytskyi and Cherkasy regions of Ukraine. The survey was conducted using the LimeSurvey service.

RESULTS AND DISCUSSION

An important stage of the research is to find out the impact of various information technologies on individual components of the literary competence of junior schoolchildren (Figure 1):

FIGURE 1
THE POSSIBILITY OF THE INFLUENCE OF INFORMATION AND COMMUNICATION TECHNOLOGIES ON INDIVIDUAL COMPONENTS OF LITERARY COMPETENCE, %

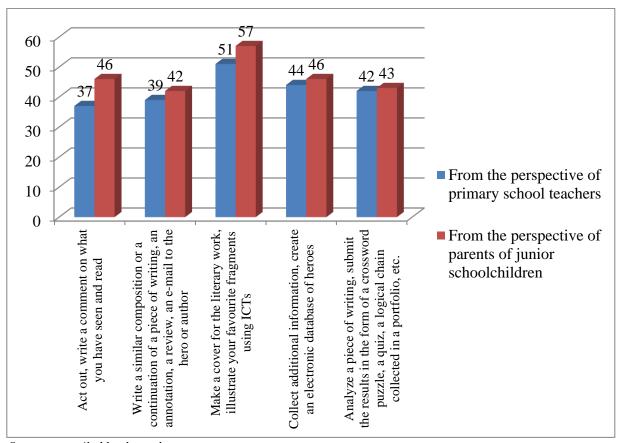


Source: compiled by the authors.

As the survey participants have noted in their answers, of all the components of literary competence, it is most advisable to focus on the development of motivational, cognitive-activity and communicative aspects when using ICTs.

The opinion of the survey participants regarding the most effective types of activities for junior schoolchildren that can be organized with the help of information and communication technologies is shown in Figure 2.

FIGURE 2
THE MOST EFFECTIVE TYPES OF ACTIVITIES FOR JUNIOR SCHOOLCHILDREN THAT
CAN BE IMPLEMENTED WITH THE HELP OF INFORMATION AND
COMMUNICATION TECHNOLOGIES, %

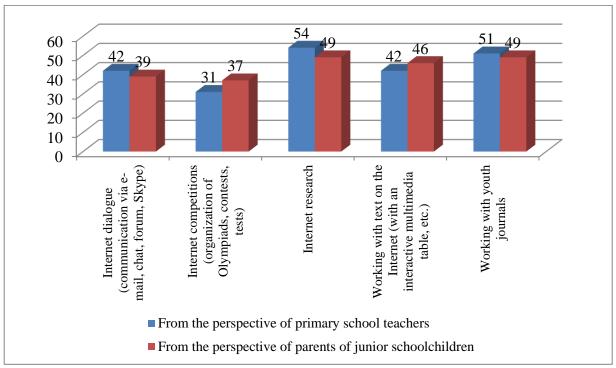


Source: compiled by the authors.

The research has shown that both in the opinion of primary school teachers and from the viewpoint of parents of junior schoolchildren, the most effective activities for the development of pupils of junior school age with the help of information and communication technologies are as follows: preparing a cover for a literary work, illustrations using ICT tools, selection of additional information, creation of an electronic database of the heroes of the piece of writing, analysis of the literary work and presentation of the results in the form of an original electronic product, such as: crossword puzzle, quiz, filling in the blank, logical chain, etc., collected in a portfolio, etc.

According to the results of the survey, the methods of work that require additional refinement by the developers of software educational products used in the practice of junior school are as follows (Figure 3):

FIGURE 3 METHODS OF ORGANIZING CLASSES FOR IMPROVING THE LITERARY COMPETENCE WITH THE HELP OF ICTS IN THE PRACTICE OF JUNIOR SCHOOL, WHICH REQUIRE ADDITIONAL REFINEMENT, %

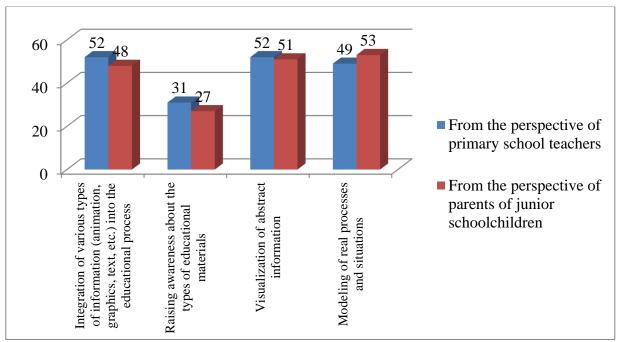


Source: compiled by the authors.

As it can be seen from Figure 3, the majority of survey participants believe that such information tools as Internet research, the participation of school youth in reading magazines, participation in games, quizzes on literary topics should be improved.

An important issue in the study of the features of using ICTs in the formation of the literary competence of junior schoolchildren is to clarify the advantages of multimedia technologies in this type of education (Figure 4):

FIGURE 4
THE ADVANTAGES OF MULTIMEDIA TECHNOLOGIES IN THE PROCESS OF LITERARY COMPETENCE FORMATION OF JUNIOR SCHOOLCHILDREN, %

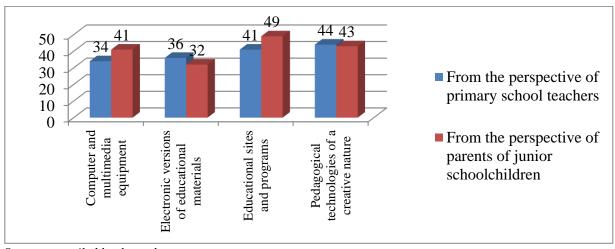


Source: compiled by the authors.

The conducted analysis has revealed that, first and foremost, the introduction of multimedia software allows integrating various types of information (animation, graphics, text, etc.) into the educational process, visualizing abstract information using dynamic representations, simulating real processes and situations.

Identifying the types of ICTs that are used in the junior grades in the formation of the literary competence of schoolchildren is of particular importance in the present research (Figure 5):

FIGURE 5
TYPES OF ICTS USED IN JUNIOR GRADES FOR THE FORMATION OF LITERARY COMPETENCE OF SCHOOLCHILDREN, %

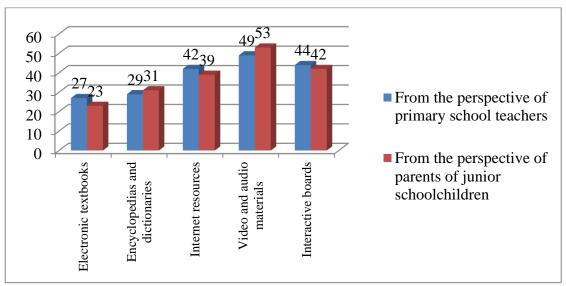


Source: compiled by the authors.

According to the respondents' viewpoints, in the junior grades, educational programs and pedagogical technologies of a creative nature are mostly used in the formation of literary competence.

In the process of the research, the survey participants were asked to identify the types of ICTs that, in their opinion, should be more actively applied in primary school for developing the literary competence of junior schoolchildren (Figure 6):

FIGURE 6
TYPES OF ICTS THAT SHOULD BE MORE ACTIVELY USED IN THE JUNIOR SCHOOL IN THE FORMATION OF LITERARY COMPETENCE OF PRIMARY PUPILS, %



Source: compiled by the authors.

According to the results of the survey, more active use of such tools as Internet resources, video and audio materials, interactive whiteboards, etc., in the educational process should be considered useful and necessary.

Therefore, the development of motivational, cognitive-activity, emotional-value, communicative, social-cultural components of the literary competence with the use of ICTs is closely related to the factors that indicate the formation of this type of competence of a junior schoolchild, forasmuch as it represents the diversity of the reading activity of the education seekers and their literary experience, taking into account previously applied competence approaches to the study of the topics.

The use of ICT tools in teaching literature, as T. Roberts and K. Hernandez (2019) note, makes it possible to develop knowledge of literary studies, history and theory of literature, understanding of artistic phenomena of different eras, to obtain qualitative information about the life and work of writers, to acquire the skills of conducting analogies of historical events with emotional experiences of heroes, facts of artistic culture, understanding the genre specificity of literary works. At the same time, the use of information tools makes it possible to form design and technological skills, learn to use ICT tools, Internet sources.

At the same time, it should be taken into account that the literary competence of students is a type of subject literary competence, the formation of which by means of ICT implies increased attention to the improvement of their basic information and communication competence (Panigrahi, Srivastava & Sharma, 2018).

Junior schoolchildren differ from other age groups by their high communicative activity, emotionality, categorical judgments related to undisguised interest in the diversity of the world. Consequently, when developing the theoretical and literary competence of students with the help of ICTs, it is necessary to pay

attention to various forms of interaction (personal - extra-auditory, individual - paired - group), types of tasks (direct, problematic, cognitive, philosophical-reflective, and constructive-creative).

The use of modern ICTs in the educational process increases the requirements towards professional training of the teacher, his information and communication skills, level of knowledge, culture of language and behaviour. A teacher should to a certain extent possess universal, basic knowledge in order to be able to effectively use modern information and communication technologies in a pedagogical sense, create conditions for the comprehensive development of the creative potential of students, their abilities and skills, satisfy the requirements and pedagogical and cognitive needs of education seekers (Bond, Marín, Dolch, Bedenlier, Zawacki-Richter, 2018).

An important motivational factor in the use of the latest information technologies in acquiring the literary competence of schoolchildren of primary school age, according to the viewpoint of D. Masoumi (2020), is intensive pedagogy, that is, introduction of active methods into the educational process, primarily game learning, the basis of which is innovative and organizational activity games. According to the researchers' opinions, in such games, there is a transition from one-sided partial knowledge to multilateral knowledge about the object, its modelling highlighting the main contradictions, and not only regarding acquired decision-making skills.

Thus, the principal factors in the development of optimal models of a comprehensive combination of traditional and information and communication technologies in the process of forming the theoretical and literary competence of younger schoolchildren are as follows:

- 1) teaching the process of understanding the essence of a literary work;
- 2) thorough knowledge of the patterns of assimilation of theoretical and literary information by students at their stage of literary development;
- 3) mastering a wide range of well-known information and communication technologies and the ability to use them appropriately in the educational process of teaching literature.

When forming the literary competence of junior schoolchildren, it should be taken into account that information technologies offer various opportunities for the development of the education seeker and provide to be applied in the educational process in the future. This circumstance requires special attention in the process of applying information and communication technologies, which meets the requirements of the information society.

CONCLUSIONS

The analysis of scientific literature has shown that the effective use of information and communication technologies, especially if they are adapted to the students' features, the composition of their thinking, the level of existing knowledge, is one of the factors of success in the development of literary competence of junior schoolchildren. At the same time, students begin to enjoy the learning process, regardless of external motivating factors, achieving success in improving their literary literacy.

The introduction of multimedia software makes it possible to use different types of information (animation, graphics, text, etc.) at reading lessons; multimedia tools allow visualizing abstract information through a dynamic representation, simulating real processes and situations. The simultaneous use of several channels for the provision of educational information allows increasing the efficiency of the educational process.

It is significant that the use of ICTs by a teacher in the process of literary competence formation contributes to the development of students' information and digital competence, which is one of the key prerequisites for their successful socialization in the future. This involves the confident, critical use of ICTs in order to create, search, process and share information, including mastering the basics of programming, developing algorithmic thinking, working with databases, developing Internet and cybersecurity skills, understanding the ethics of working with information.

REFERENCES

- Abel, V., & Alvarez, Jr. (2020). The phenomenon of learning at a distance through emergency remote teaching amidst the pandemic crisis. Asian Journal of Distance Education, 15(1), 144–153. Retrieved from https://files.eric.ed.gov/fulltext/EJ1289949.pdf
- Adu-Yeboah, C., Amuah, E., Essilfie, G., & Somuah, B. (2022). Exploring preservice teachers' digital skills, stress, and coping strategies during online lessons amid Covid-19 pandemic in Ghana Christopher Yaw Kwaah. Cogent Education, 9, 2107292. DOI: 10.1080/2331186X.2022.2107292
- Albert, J.R.G., Santos, A.G.F., & Vizmanos, J.F.V. (2018). Profile and determinants of the middle income class in the Philippines. Philippine Institute for Development Studies: Quezon City, Philippines. Retrieved from https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps1820.pdf
- Armea, A., Castro, M., Llamado, M., Lotino, R. (2022). English proficiency and literary competence of English major students: predictor for effective language and literature teaching. Globus Journal of Progressive Education, 12, 1. DOI: 10.46360/globus.edu.220221019
- Bond, M., Marín, V.I., Dolch, C., Bedenlier, S., & Zawacki-Richter, O. (2018). Digital transformation in German higher education: student and teacher perceptions and usage of digital media. International Journal of Educational Technology in Higher Education, 15, 1–20. Retrieved from https://educationaltechnologyjournal.springeropen.com/articles/10.1186/s41239-018-0130-1
- Bozkurt, A., & Sharma, R.C. (2020). Emergency remote teaching in a time of global crisis due to Corona Virus pandemic. Asian Journal of Distance Education, 15, 1. https://doi.org/10.5281/zenodo.3778083
- Cueva, A., & Inga, E. (2022). Information and Communication Technologies for Education Considering the Flipped Learning Model. Education Sciences, 12, 207. https://doi.org/10.3390/ educsci12030207
- Lucke, T., Dunn, P.K., & Christie, M. (2017). Activating learning in engineering education using ICT and the concept of 'Flipping the classroom'. European Journal of Engineering Education, 42, 45–57. https://doi.org/10.1080/03043797.2016.1201460
- Magulod, G. (2018). Innovative Learning Tasks in Enhancing the Literary Appreciation Skills of Students. SAGE Open, 22, 2018. https://journals.sagepub.com/doi/10.1177/2158244018820382
- Masoumi, D. (2020). Situating ICT in early childhood teacher education. Education and Information Technologies, 33, 3009–3026. Retrieved from https://link.springer.com/article/10.1007/s10639-020-10399-7
- Memon, T.D., Jurin, M., Kwan, P., Jan, T., Sidnal, N., & Nafi, N. (2021). Studying learner's perception of attaining graduate attributes in capstone project units using online flipped classroom. Education Sciences, 11, 698. https://doi.org/10.3390/educsci11110698
- Ocampo, D. (2018). Effectiveness of Differentiated Instruction in the Reading Comprehension Level of Grade-11 Senior High School Students. Asia Pacific Journal of Multidisciplinary Research, 6(4), 1–10. Retrieved from http://www.apjmr.com/wp-content/uploads/2018/08/APJMR-2018-6.4.01.pdf
- Ocampo, D. (2021). 21st Pedagogical Competence of Pre-Service Teachers in the New Normal Modalities. *Globus Journal of Progressive Education*, 1(1), 74–79. doi:10.46360/globus.edu.220211014
- Panigrahi, R., Srivastava, P.R., & Sharma, D. (2018). Online learning: Adoption, continuance, and learning outcome - A review of literature. International Journal of Information Management, 43, 1–14. https://doi.org/10.1016/j.ijinfomgt.2018.05.005
- Roberts, T., & Hernandez, K. (2019). Digital access is not binary: The 5'A's of technology access in the Philippines. The Electronic Journal of Information Systems in Developing Countries, 85(4). https://doi.org/10.1002/isd2.12084
- Sosa Díaz, M.J., & Palau Martín, R.F. (2018). Flipped classroom para adquirir la competencia digital docente: Una experiencia didáctica en la Educación Superior. Revista de Medios y Educación, 169, 37–54. https://doi.org/10.12795/pixelbit.2018.i52.03

- Tondeur, J., Aesaert, K., Prestridge, S., & Consuegra, E. (2018). A multilevel analysis of what matters in the training of pre-service teacher's ICT competencies. *Computers & Education*, 122. DOI:10.1016/j.compedu.2018.03.002
- Tzafilkou, K., Perifanou, M., & Economides, A.A. (2022). Development and validation of students' digital competence scale (SDiCoS). *International Journal of Educational Technology in Higher Education*, 19, 30. https://doi.org/10.1186/s41239-022-00330-0
- Wagner, D.A. (2018). Technology for education in low-income countries: Supporting the UN sustainable development goals. In *ICT-Supported Innovations in Small Countries and Developing Regions*. Springer, Cham. https://doi.org/10.1007/978-3-319-67657-9_3
- Zheng, X.L., Kim, H.S., Lai, W.H., & Hwang, G.J. (2020).Cognitive regulations in ICT-supported flipped classroom interactions: An activity theory perspective. *Br. J. Educ. Tefchnol. Education Sciences*, 51, 103–130. Retrieved from https://bera-journals.onlinelibrary.wiley.com/doi/10.1111/bjet.12763