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BENEFITS OF INTERACTIVE LEARNING FOR STUDENTS' CRITICAL THINKING SKILLS IMPROVEMENT

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Abstract. The article throws the light on the problem of developing students' critical thinking skills through interactive learning. The latter offers numerous benefits for students'soft skills improvement. It requires students to actively participate in the education process, promoting engagement with the material to be gained. Interactive learning often involves problem-solving activities, which foster students to apply critical thinking skills to analyze information, evaluate results, and solve educational problems. Through hands-on experiences and real-world scenarios, students develop the ability to think critically and make informed decisions. Such active engagement encourages students to process information deeper, leading to better understanding and retention of concepts. Interaction in the learning process frequently involves collaborative activities that encourage students to work together and share ideas. Thus, collaborative learning enhances communication skills and exposes students to different perspectives, fostering critical thinking through discussions and debates. Innovative platforms aimed at interactive learning often provide immediate feedback, allowing students to assess their understanding and correct misconceptions promptly. Instant feedback facilitates a continuous learning cycle, enabling students to refine their critical thinking skills by addressing gaps in their knowledge. Interactive learning also emphasizes the application of knowledge in practical contexts. When students apply theoretical concepts to real-world situations, they simultaneously develop critical thinking skills by considering the relevance and implications of their knowledge. The authors focus on the importance on creating interactive learning environments which can be adaptable to different learning styles and paces. This adaptability encourages independent thinking and allows students to explore topics in-depth, contributing to the development of critical thinking skills. Interactive learning often incorporates multimedia resources such as videos, simulations, and interactive exercises. They provide diverse stimuli for learners, motivating critical thinking by requiring them to analyze information presented in various formats. Interactive learning can make the learning process more enjoyable and engaging for students. Considering all these aspects of arranging favorable environment for interactive learning, the authors prove the increase students' motivation in acquiring knowledge. This leads to greater effort and persistence in students' learning, contributing to the development and application of critical thinking skills. Thus, interactive learning activities include opportunities for reflection, where students focus on their thinking processes. Reflective practices encourage learners to evaluate their own understanding, identify areas for improvement, and refine their critical thinking strategies.

Keywords*:* critical thinking skills, interactive learning, interactive teaching methods, primary schoolchildren, education process.

1. INTRODUCTION

The task of a modern teacher is not to impart knowledge, but to teach students to acquire it. The teacher's objectives are to motivate schoolchildren to study and develop interest in knowledge, organize the educational process so that students learn to independently supplement their knowledge and critically interpret information, understand the essence of things, reflect on problems and independently make decisions about ways to solve them. The introduction of new methods, forms, technologies and the use of new teaching aids contribute to the successful implementation of this process, activation of mental and cognitive activity of primary education students. As a result, the acquired knowledge is applied in practice, and the quality and effectiveness of the educational process, as well as the acquisition of the necessary competencies by students, are improved.

As evidenced by the analysis of official state documents, in particular the State Standard of Primary Education, the concept of NUS is built on the basis of competence-based, person-oriented and activity-based approaches, and new teaching methods, namely interactive ones, are a necessary condition for the implementation of the content and tasks of all branches of primary education.

Foreign and Ukrainian scientists devoted scientific works to the problem of critical thinking and its development (Arkhipova E., Bloom B., Bruner J., Vukina N., Dewey D., Konversky A., Crawford A., Limpman M., Paul R., Piaget J., Pometun O., Terletska L., Terno S., Tyaglo O., Halpern D., etc.). Divakova I., Kobernyk G., Komar O., Strebna O., Sotsenko A., Pirozhenko L., Pometun O., Torchynska T. and others focused on critical thinking skills development through interactive technologies.

2. DISCUSSION

It is worth noting that the term "interactive pedagogy" was introduced into the scientific discourse in 1975 by the German researcher Hans Fritz. The concept of "interactive" (from the Latin "inter" - mutual and "act" - to act), as we read in dictionaries, is interpreted as capable of interaction, dialogue and argument (Divakova, 2011). Interactive learning is an educational technology that enables students to learn together, energetically and lively due to interaction and active communication (See Fig. 1.).

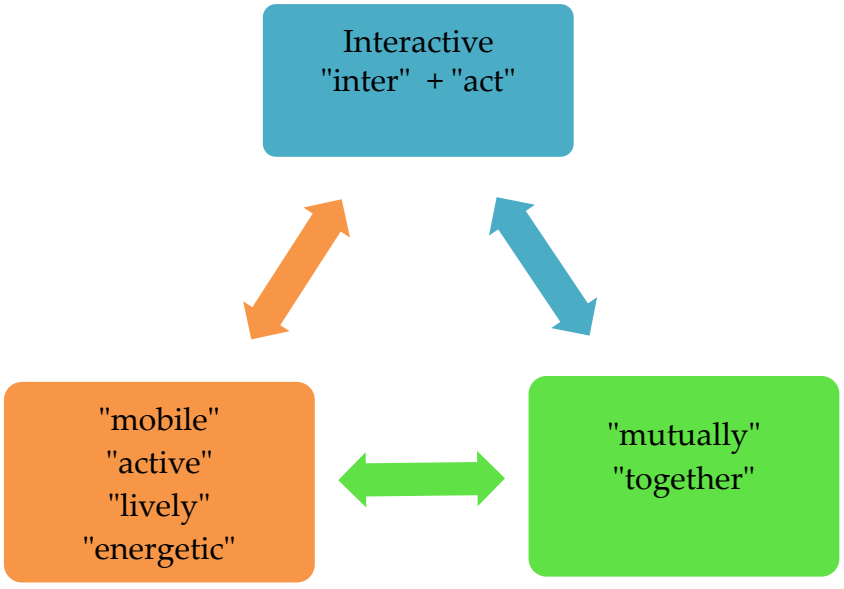

Fig 1. Features of interactive learning technology

Source: created by authors

Interactive learning is a form of organizing the students' cognitive activity, according to which the teacher must provide comfortable learning conditions for each learner. At the same time, it is essential to

make sure that each student can realize oneself, feel success, see the results of intellectual work, evaluate the productivity of learning, and also exclude situations in which there could be dominance of one opinion over another. This is emphasized by researchers of interactive learning O. Stebna and A. Sotsenko (Strebna, & Sotsenko, 2017).

The pedagogical dictionary contains the following definition of the concept of "interactive learning": education process that is based on the interaction of the learner with the learning environment, which is the field of learned experience.

Interactive educational technologies are gaming technologies aimed at the children's learning and development built on well-organized group work. A mandatory condition for the successful implementation of these technologies is the constant active interaction of all participants in the educational process. This is "co-learning, mutual learning (collective, group, cooperative learning), where both the student and the teacher are equal, equal subjects of learning" (Pometun, & Pirozhenko, 2004). The teacher plays the role of an older and more experienced friend who can advise, help, knows and understands the needs, interests and capabilities of each child.

In the process of organizing interactive training, it is important to be guided by key principles: individualization is realized when interacting with various partners, everyone interacts with everyone; self-governance (manifested in children's involvement in planning, organization and management of the educational process). It is proved (Blyznyuk, 2023) that "*scientists and practitioners have long been convinced of the need for dialogue between all the subjects of educational process. At the same time, dialogue is understood as an equal interaction between a student and a teacher or students themselves, designed to prepare them for a constantly dialogic and contradictory adult life. Determination and courage in expressing one's point of view, readiness to argue personal declaration in various life and professional situations, maximum tolerance in statements and behavior can be formed only under the condition of using active dialogic learning technologies*".

The problem of activating learning, maintaining attention during lessons, and motivating cognitive activities of students of primary education is not new, but its solution requires a constant search for new ways, taking into account the requests and needs of the child. Interactive learning allows you to provide active learning, the ability to move, and at the same time to carry out educational activities and achieve certain learning goals.

Interactive work has its own principles, according to O. Pometun:

- simultaneous interaction (all students work at the same time, regardless of whether it is work in pairs, microgroups, or collectively);
- equal participation (all students are given equal time to complete the task);
- positive interaction (the successful work of each student is a prerequisite for the completion of the task by the entire group);
- individual responsibility (each member of the group has one's own task).

The key to the effectiveness of interactive learning is the correct, appropriate and methodically justified use of interactive methods of work in the classroom. The efficiency of the educational process and the achievement of the set goal - the formation of a comprehensively and harmoniously developed, competent personality - depends on this particular aspect of pedagogical activity.

The pedagogical community determines which methods of work can be called interactive. First of all, those that provide for the active participation of all participants in the educational process, when "*someone speaks, manages, models, writes, draws, etc., that is, not just acts only as a listener, observer, but also takes an active part in what is happening, creating it*" (Pometun, & Pirozhenko, 2004).

Interactive learning methods best correspond to person-oriented and activity-based approaches, because they are based on the realization of the cognitive interests and needs of the individual, his/her acquisition of practical skills and abilities during role-playing games and modeling of various life situations. They provide space for the student's self-realization in learning and displaying creative potential, contribute to the implementation of the competence-based approach, which is key in the New Ukrainian School. At the same time, the teacher's role is to correctly guide the student's activities, to

organize effective multilateral communication, "*which is characterized by the absence of polarity and minimal concentration on the teacher's point of view. Participants of such communication are more mobile, open and active*" (Komar, 2010).

Interactive learning is called co-learning, mutual learning, collaborative learning, where both the teacher and the student are subjects of the educational process. They solve problems together by analyzing circumstances, situations, reflecting and discussing information, processes, phenomena, and events, etc.

Interactive technologies, depending on the purpose and content of training, are divided into four groups:

- cooperative learning technologies,
- technologies of collective and group learning,
- situational learning technologies,
- learning in discussion (Komar, 2010).

Cooperative learning technologies involve pair and group work, organized both in the lessons of assimilation and application of knowledge, skills and abilities. This can happen immediately after the teacher presents new material, at the beginning of a new lesson instead of a survey, in a special lesson dedicated to the practical application of knowledge, skills and abilities or be part of a repetitive and generalizing lesson.

Collective and group learning technologies are interactive technologies that provide for the simultaneous joint work of the entire class. *Technologies of situational modeling* is the construction of an educational process based on game activities subordinated to a defined didactic goal.

Technologies for working out debatable issues contribute to the development of critical thinking, give an opportunity to determine one's own position, form the ability to state and defend one's perspective, deepen knowledge of the discussed problem, and the ability to communicate.

During the implementation of these technologies, various methods of interactive learning are used. They provide both individual and group activity, collective forms of interaction during the educational process. In pedagogy, there are different classifications of interactive learning methods, in particular, O. Pometun (Pometun, Pobirchenko, Kobernyk, Komar, & Torchynska, 2008) distinguish group, collective, and collective-group methods (Fig. 2.).

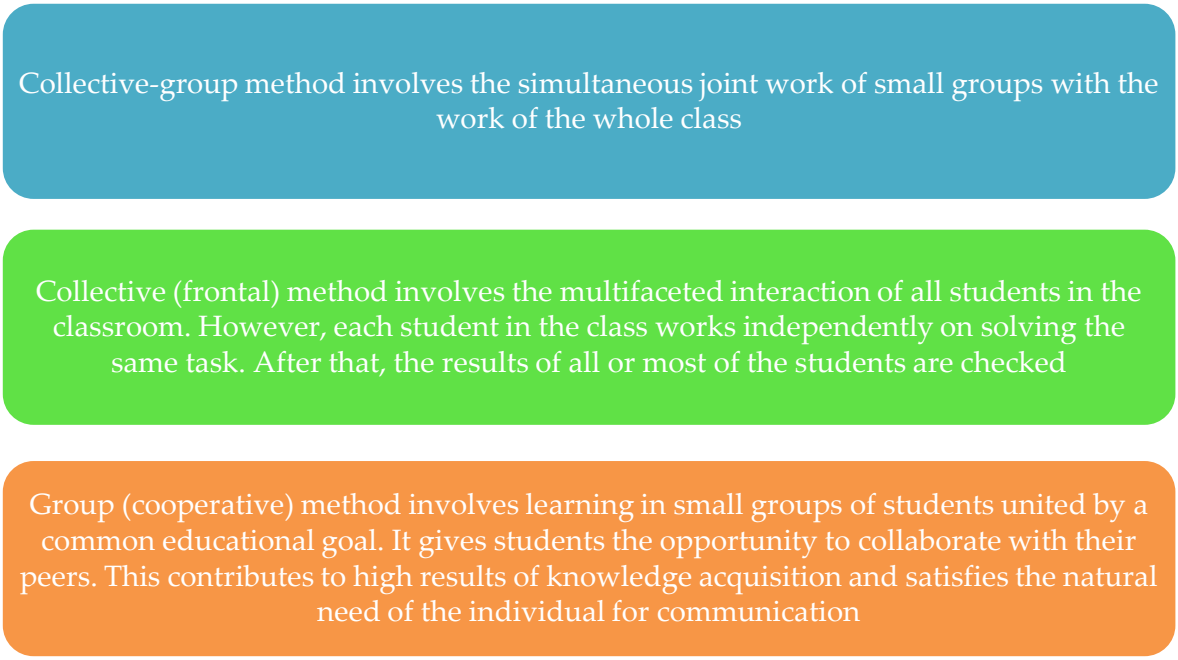

Fig. 2. Classification of interactive learning methods by O. Pometun

Source: created by authors

Based on the analysis and generalizations of the provisions of scientific works devoted to the study of interactive learning, as well as the study of pedagogical experience, we attempt to interpret the concept of "interactive learning methods". We explain it as a way of organizing effective, productive, equal, active and positive (oriented towards the acquisition by students of key and specific competences) interaction among all participants of the educational process. Such interaction implies self-determination and self-realization of all participants, and this is possible under the condition of active use of interactive learning methods combined with traditional forms of work in classroom.

Interactive learning helps students learn all levels of cognition (knowledge, understanding, application, analysis, synthesis, evaluation), develop critical thinking skills, reflection, the ability to think, and solve problems. Motivation to study is formed on the basis of students' interests, initiatives and engaging activities. During interactive classes, students develop key and specific competencies, life values, and develop communication skills. Thus, interactive methods involve simulation of life situations, role-playing story games, storytelling, creation of a cooperative atmosphere, interaction, joint problem-solving based on the analysis of the relevant educational situation and exclude the dominance of one participant in the educational process over another, one opinion over another. Therefore, during such training students learn to communicate democratically with other people, show tolerance, learn to think creatively, make non-standard and well-founded decisions. In this case, both the experience that the students have already acquired and the new emotional and life experience are important.

Communication is a component without which interactive learning is impossible. Communication links arise not only between the teacher and students, however, also become more active in the student circle (Pometun, Pirozhenko, 2004). The principles of cooperation, the situation of open confrontation of one's own doubts and contradictions with the doubts and contradictions of others are important aspects of interactive learning. The peculiarity of interactive methods is that they prepare students for life and public activity, ensure the mastery of self-development skills, and promote the development of critical thinking.

Repeatedly considering the classification of interactive teaching methods, it should be noted that in addition to the above classification by O. Pometun, there are other options for classifying methods. It is worth mentioning that some scientists indicate the absence of a clear distinction between interactive and active methods - the same types are attributed to both active and interactive methods. Among the main shortcomings, it is indicated that the classifications do not take into account such a personal function as self-realization. Thus, there is a classification of interactive learning methods according to the spectrum of possibilities, suggested by H. Kharkhanov , and according to the communicative function, developed by T. Panina and L.Vavylova and others (Kalenyuk, 2010). (Fig. 3).

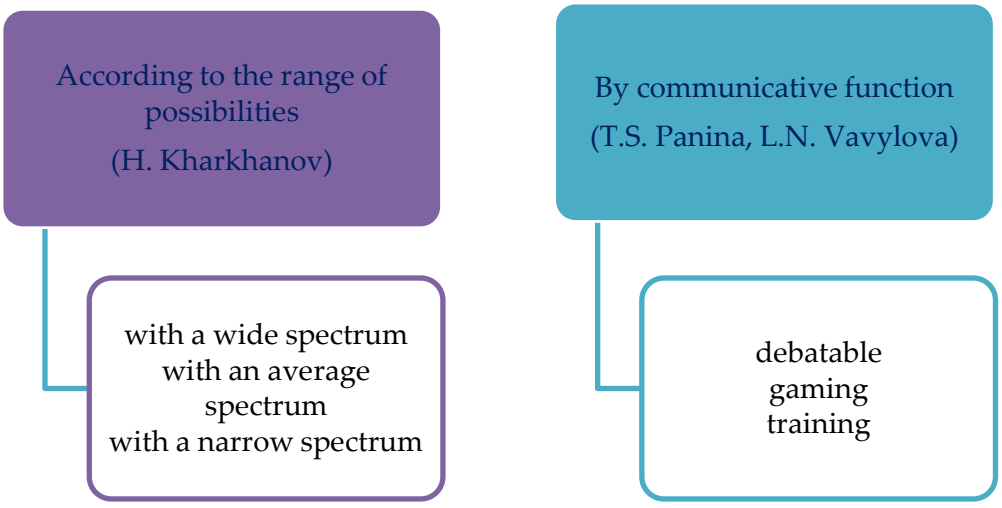

Fig. 3. Classification of interactive learning methods

Source: created by authors

V. Melnyk proposes to consider interactive methods of learning preventive (training, consultations, etc.), imitative (staging, business games, debate, etc.), non- imitative (problem lecture, conference, workshop, etc.). Researches present six classification groups of interactive learning methods:

1) by level of application;
2) on the philosophical basis;
3) on the leading factor of mental development;
4) from the scientific concept of assimilation of experience;
5) by orientation to personal structure;
6) by the nature of the content and structure.

According to the level of application, interactive learning technologies are general-pedagogical and personal-oriented. This characterizes the educational process as a process focused on the development of the personality of each student, taking into account the subjective life experience of each person. On the philosophical basis they are pragmatic. Since supporters of this concept believe that the intellectual qualities of each person are determined by nature. Moreover, they are unique, since each person is unique, and the manifestation of intelligence is primarily related to the individual experience of a person acquired by a child before school, at school, in the family, and in the social and cultural environment. The main task of education within the framework of this teaching is to help a person in self-realization. This can be achieved not only through the formation and development of moral qualities, values, principles, but also through the development and multiplication of those abilities that are inherent in a child from birth, making the achievement of success the main, primary purpose of human life (Prokopiv, 2010).

According to the concept of assimilation, interactive learning technologies are characterized as associative, reflective and developmental. Oriented to personal structures, interactive learning technologies are informational and operational, as they contribute to the formation of knowledge, abilities and skills, as well as methods of mental actions. In addition, these technologies also encourage the formation of self-governing mechanisms of the individual.

In pedagogical practice, the division of interactive methods into group and frontal methods is most often used. Group methods are effective in solving a wide range of tasks: the development of students' critical thinking, adequate self-esteem and responsibility, the ability to cooperate and others. They involve the interaction of participants in small groups (in practice from two to six people). Frontal methods involve joint work and mutual learning of the whole group. Group methods include work in pairs, work in threes, rotating (alternating threes), “two - four - all together”, work in small groups, “aquarium” and others. In the front ones educators use such engaging activities as “big circle”, “microphone”, “unfinished sentences”, “brainstorming”, dilemma analysis, “mosaic” (“Openwork tile”), and “Press” method. Above, we considered the methods of developing students' critical thinking. In fact, all of them are interactive in nature and are used in the process of interactive learning.

Education at NUS is not aimed at the study of theory, but at the practical aspects of the implementation of the content of education and the formation of students’ practical skills and abilities. Schoolchildren are involved in gaining experience in the process of direct participation, engaging activity, experimental work. The active mode of the educational process becomes a guarantee of its efficiency and effectiveness in terms of the formation of schoolchildren's competencies, provided for by the educational programs and the State Standard of Primary Education. Even during distance learning, interactivity is possible due to the use of a certain set of digital tools, online services that ensure communication of all participants.

New conditions and new technologies dictate an increase in the active role of students. The main task of the teacher, regardless of the format of the educational process (face-to-face or remote), is to teach students to be able to accurately formulate problems; quickly collect and evaluate information; independently form alternative views on the problem; come up with new ideas; offer original solutions to problems (Bezlyudna, 2011, p. 53).

Interactive teaching methods are used during the study of all primary school subjects. They are especially productive in linguistic and literary classes, where it is easy to realize the educational, cognitive, communicative and developmental functions of learning (Kalenyuk, 2010). It is in reading lessons or when working with texts in Ukrainian or English language lessons that it is most appropriate to use interactive forms. Here students have the opportunity to develop one's own opinion, express feelings about a certain situation, be able to reveal personal creative potential, demonstrate creative abilities, i.e. learn how to think critically and communicate, presenting own thoughts and views.

Alongside fairy tales, riddles and other curiosities, collective and group work is actively used in the lessons of reading and the Ukrainian or English language in primary school. Such activities increase the motivation and cognitive activity of schoolchildren. Moreover, they raise interest in educational activities. The direct interaction of students with each other in the process of solving the assigned task invigorates the educational activity, makes it dynamic, engaging and playful. Ideas generated by group members help students unite, be useful to each other, and interact productively. Expressing opinions increases confidence, reveals personal potential, promotes socialization. Working in groups is a useful communication experience. So, in language and reading classes, students take part in discussing the texts they have read, describe the characters, solve crosswords, illustrate the information they have received, write letters to the author, the hero or on their behalf, etc. As the monitoring proves, students write endings of works, diaries on behalf of their favorite characters, retelling stories with great enthusiasm. At the same time, students' critical and logical thinking is developed, creative and cognitive activities are improved.

Teachers identified the strengths of interactive learning. According to American scientists, interactive forms definitely increase the efficiency of the process of assimilating information. It is well-known that when a student teaches others and immediately applies the acquired knowledge, the process of assimilating information is 90%, while simply listening to lectures and assimilating information during independent reading is only 15%. Therefore, interactive learning methods are 5-10 times more effective than relatively passive ones. These methods also contribute to the development of various types of thinking, including critical thinking. Group work is often analytical, requiring the ability to deal with information, select it, analyze, interpret and draw certain conclusions, generalizations, evaluate and choose the most important. Search activity turns into educational and cognitive activity and activates independent thinking, and thus contributes to the formation of one's own judgments, views, opinions and evaluations.

3. CONCLUSION

To sum up the above-mentioned findings, interactive learning offers countless benefits for students' critical thinking skills improvement:

active engagement;
problem-solving opportunities;
collaboration and communication;
immediate feedback;
application of knowledge;
adaptability and flexibility;
multimedia resources;
increased motivation;
reflection and metacognition.

Thus, interactive learning provides a dynamic and engaging environment that promotes the development of critical thinking skills by fostering students' active participation in educational practices. Therefore, the essence of interactive learning is that the learning process takes place under the condition of constant active interaction of all students. This is co-learning, mutual learning (collective,

group, cooperative learning), where both the student and the teacher are equal, equal subjects of learning. Interactive teaching methods provide the greatest space for student's self-realization in learning and correspond to the person-oriented approach the most. Since they are based on the cognitive interests and needs of the individual. Researchers distinguish: group (cooperative), collective, collective-group methods of interactive learning, which are effective in the Education Institutions and contribute to the development of critical thinking of students of primary education.

A further perspective for this problem deeper research is seen in the study of the current state of the researched problem in the practice of a modern primary school and development of methodical support for formation primary schoolchildren's critical thinking skills.

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Близнюк Тетяна, Качак Тетяна. Переваги інтерактивного навчання для вдосконалення навичок критичного мислення молодших школярів. *Журнал Прикарпатського університету імені Василя Стефаника*, **11** (1) (2024), 94-102.

У статті висвітлено теоретичні та практичні аспекти актуальної проблеми вдосконалення навичок критичного мислення здобувачів освіти засобами інтерактивного навчання. Автори дослідження виокремлюють численні переваги та ключові принципи організації ефективного інтерактивного навчального середовища у початковій школі. Доведено, що інтерактивне навчання передбачає активну участь молодших школярів у навчальному процесі, що сприяє глибшому сприйняттю матеріалу. Обґрунтовано, що інтерактивне навчання часто включає в себе завдання з вирішення проблем, що вимагають від учнів застосування навичок критичного мислення для аналізу, оцінки та вирішення завдань. Завдяки практичним вправам та сценаріям з реального життя молодші школярі розвивають здатність критично мислити та приймати обґрунтовані рішення. Авторами наголошено, що таке навчання часто включає в себе колективні завдання, що сприяють співпраці студентів та обміну ідеями, а це покращує комунікативні навички та дозволяє учням ознайомлюватися з різними точками зору, що сприяє розвитку критичного мислення через обговорення та дебати. Платформи інтерактивного навчання забезпечують негайний зворотний зв'язок, дозволяючи здобувачам освіти оцінювати свої знання, вміння і навички та одразу виправляти непорозуміння. На думку дослідниць, створення інтерактивних навчальних середовищ передбачає їх адаптацію до різних стилів та темпів навчання. Така адаптивність сприяє незалежному мисленню та дозволяє учням досліджувати матеріал глибше, розвивати навички критичного мислення та рефлексії. У результаті учні можуть визначати пріоритети саморозвитку. Таким чином, інтерактивне навчання забезпечує динамічне та захопливе освітнє середовище, яке сприяє розвитку навичок критичного мислення молодших школярів.

Ключові слова: навички критичного мислення, інтерактивне навчання, інтерактивні методи навчання, молодші школярі, навчальний процес.