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Introduction of interactive teaching methods in modern schools

Introducción de métodos de enseñanza interactivos en las escuelas modernas.

Viktoriia Bilyk

bilykvika@ukr.net

<https://orcid.org/0000-0003-1265-3693>

Senior Lecturer, PhD in Pedagogy, Department of Technological and Professional Education and Decorative Arts, Khmelnytskyi National University, Ukraine.

Roman Banak

banak1992@gmail.com

<https://orcid.org/0000-0002-5790-7792>

Deputy director for Educational and Methodological Work of the Educational Complex "Dominanta", Postgraduate Student, Department of Theory and Methods of Physics and Astronomy Teaching, National Pedagogical Dragomanov University, Ukraine.

Oleh Bardadym

bardadym_oleh@ukr.net

<https://orcid.org/0000-0002-2777-6568>

Postgraduate Student of the Primary Education Department, Head of Computer Laboratories, Educational-Scientific Institute of Pedagogical Education, Social Work and Art, Bohdan Khmelnytsky National University of Cherkasy, Ukraine.

Mariia Sokal

mrijasss@gmail.com

<https://orcid.org/0000-0001-9274-7651>

Candidate of Philological Sciences (PhD in Philology), Associate Professor, Head of the Department of Slavic Linguistics, The State institution «South Ukrainian National Pedagogical University named after K. D. Ushynsky», Ukraine.

Olena Anichkina

eva_kvitka@meta.ua

<https://orcid.org/0000-0003-4843-0707>

PhD (Candidate of Pedagogical Sciences) Associate Professor, Head of the Department of Chemistry Zhytomyr State University named after Ivan Franko, Ukraine.

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Abstract

Modern society puts forward new challenges for education, one of which is training people who are able to express critical opinions, find a way of communication in a new territory, who effectively establish new connections in a fast-moving reality. Intension, activity, independence, creativity, the ability to adapt to rapid changes – these personality traits are becoming the most important at the current stage of developing literature, and their formation requires using new approaches to the process of teaching literacy. Therefore, the purpose of the academic paper is to clarify the

development of using innovative, non-standard, as well as critical thinking methods of teaching and learning at modern schools. In the course of the research, the following methods were used and applied, namely: analysis, synthesis, generalization, explanation and qualification of data. By the way, such outstanding modern and foreign scientists as O. Pometun, L. Pyrozhenko, as well as V. Bepalko, V. Monakhova paid particular attention to studying the issue of interactive learning methods and made a significant contribution in this direction. They explain innovations in education as an opportunity for interaction, being in the mode of conversation, dialogue, action. Moreover, their studies show that interactive learning makes it possible to significantly increase the percentage of learning the material, as it affects not only the student's consciousness but also his feelings. The development of interactive learning elements can be found in the scientific works of V. Sukhomlynskyi, the works of innovative teachers of the 70-80s (V. Shatalov, E. Ilyin, S. Lysenkova, Sh. Amonashvili, etc.), the theory of developmental learning.

Keywords: Education, the future generation, modern schools, the evolution of education, innovative methods.

Resumen

La sociedad moderna plantea nuevos desafíos para la educación, uno de los cuales es formar personas que sean capaces de expresar opiniones críticas, encontrar una forma de comunicación en un nuevo territorio, que establezcan efectivamente nuevas conexiones en una realidad que se mueve rápidamente. La intensidad, la actividad, la independencia, la creatividad, la capacidad de adaptarse a los cambios rápidos: estos rasgos de personalidad se están convirtiendo en los más importantes en la etapa actual del desarrollo de la literatura, y su formación requiere el uso de nuevos enfoques para el proceso de alfabetización. Por lo tanto, el propósito del artículo académico es aclarar el desarrollo del uso de métodos de enseñanza y aprendizaje innovadores, no estándar y de pensamiento crítico en las escuelas modernas. En el transcurso de la investigación se utilizaron y aplicaron los siguientes métodos, a saber: análisis, síntesis, generalización, explicación y calificación de datos. Por cierto, destacados científicos modernos y extranjeros como O. Pometun, L. Pyrozhenko, así como V. Bepalko, V. Monakhova prestaron especial atención al estudio del tema de los métodos de aprendizaje interactivo e hicieron una contribución significativa en esta dirección. Explican las innovaciones en educación como una oportunidad para la interacción, estando en el modo de conversación, diálogo, acción. Además, sus estudios muestran que el aprendizaje interactivo permite aumentar significativamente el porcentaje de aprendizaje del material, ya que afecta no solo a la conciencia del alumno sino también a sus sentimientos. El desarrollo de elementos de aprendizaje interactivo se puede encontrar en los trabajos científicos de V. Sukhomlynskyi, los trabajos de maestros innovadores de los años 70 y 80 (V. Shatalov, E. Ilyin, S. Lysenkova, Sh. Amonashvili, etc.), la teoría del aprendizaje evolutivo.

Palabras clave: Educación, la generación futura, escuelas modernas, la evolución de la educación, métodos innovadores.

1. Introduction

Modern society puts forward new challenges for education, one of which is training people who are able to express critical opinions, find a way of communication in a new territory, who effectively establish new connections in a fast-moving reality. Intension, activity, independence, creativity, the ability to adapt to rapid changes – these personality traits are becoming the most

important at the current stage of developing literature, and their formation requires using new approaches to the process of teaching literacy.

In this regard, the issue of using innovative, non-standard, as well as developing critical thinking, literacy styles is of particular importance.

Therefore, the Concept of the New Ukrainian School (Hrynevych, 2016) defines the importance of using tutoring styles. In the tutoring process, styles are used that teach students to make their own choices, connect what has been learned with practical life, and take into account the individuality of the education seeker.

Ultra-modern seminaries widely implement interactive learning styles of elementary school students in order to achieve significant effective results in the process of assimilating knowledge and its practical use. Interactive styles in the primary school are considered a way of organizing the students' educational and cognitive workload, ensuring their assimilation of the learning content and the achievement of literacy claims during the performance of certain tasks.

Using interactive styles and exercises in tasks and outside lessons helps students acquire new knowledge, obtain vital skills and abilities in an intriguing and active educational manner, contributing to the formation of important skills and abilities and developing an cross-cutting character, defined in the State Standard of Primary Education (Pidgurska et al., 2023).

Interactive literacy is a special form of joint efforts aimed at creating comfortable literacy conditions in which every student feels successful and intellectual. The educational process takes place in the conditions of constant, active interaction of all students and the teacher.

Interactive literacy is a special form of joint effort aimed at creating comfortable literacy conditions in which every student feels successful and intellectually engaged. The educational process takes place in an environment of constant, active interaction between all students and the teacher.

The purpose of the academic paper is to reveal the meaning and features of using interactive learning methods at the lessons in educational establishments, as well as to investigate, clarify and justify the features of their application and effectiveness.

2. Literature review

Scientists and educators have noted that interactive learning styles and forms of literacy are most effective when used in the educational process for acquiring knowledge, developing skills and abilities and forming individual paces of the student's personality Nuthall, 2012; Rohrer & Pashler, 2012; Wininger et al., 2019; El-Sabagh, 2021).

The pedagogical dictionary gives the following description: "Interactive literacy (from the Latin Interaction - trade) - literacy based on the interaction of students with the educational territory, the educational sphere, which serves as a sphere of access to knowledge" (Honcharenko, 1997).

One of the abstract principles of establishing the New Ukrainian School is the transition from “filling” the child with knowledge to competent education. Accomplishing this task is, to a great extent, related to using similar styles that encourage comparison, bracketing, analysis, visualization of the results of one’s conditioning, etc. Similar styles are interactive learning styles of young students (Kostanjevec et al., 2018).

Interactive styles are styles of teaching literacy in the process of which the student and the teacher are in the mode of discussion, and dialogue with each other (Shevchuk & Fenrich, 2005). This is cooperation, collective teaching of literacy teacher-student, student-student (Guerra & Guevara, 2017). At the same time, the teacher and the student are equal subjects of education. Interactive commerce excludes the dominance of one side of the educational process over another and one opinion over another (Pometun & Pyrozhenko, 2011). During such communication, students learn to be popular, communicate with other people, think critically and express well-founded opinions (Lau et al., 2020).

The purpose of interactive interaction includes (Kovalova et al., 2016):

1. Creation of conditions for involving all participants in learning the process.
2. Providing every education seeker with the opportunity to understand and reflect on what he knows and thinks.
3. Creating an atmosphere of work, interaction, and cooperation.
4. Providing comfortable learning conditions that would give each participant a sense of success, ability, intellectual security, and significance.
5. Productive learning, constant interaction with life, application of acquired knowledge in practical and everyday activities (Use of interactive teaching methods).

Being in interactive commerce, the student and the teacher are equal, original subjects of the educational process (İlçin et al, 2018). They consistently define the goal of loading, the object, the subject, the means of loading, and the training tasks. During such a joint hunt, thoughts, knowledge, and work styles change, as a result of which reflection and evaluation of the achieved results take place (Shaw et al., 2015). Education seekers are aware of what they have achieved in a certain position of knowledge, what they know, how they express their emotional attitude to the object of literacy, how they maintain evaluative judgments, and how their particular experience of creative efforts has been changed (Harackiewicz & Hulleman, 2010).

Interactive styles cannot be “art for art’s sake”. They should easily implement the purpose of the task; they should simply lead to the expected outcomes. The true essence of interactivity introduces an element of unpredictability. Therefore, the result is, on the one hand, the influence of drugs on the part of the manager (trainer), and on the other hand, it is the result of a whole complex of reactions that occur during the performance of the task. A study group is not just a collection of individuals for whom the leader conducts classes thanks to these styles; the group creates a new creative educational quality.

3. Methodology

The study was based on classical methods of pedagogical science. To carry out the theoretical analysis, a comprehensive review of the literature was conducted to identify the different interactive teaching methods that have been introduced in modern schools. The search for relevant articles was conducted using various academic databases such as Google Scholar, JSTOR, and Scopus. The articles were identified using specific keywords such as "interactive teaching methods," "modern schools," "technology in education," and "active learning." The articles were screened based on their relevance to the research question and their quality, as assessed by their impact factor, citation rate, and peer-review status.

For the practical observations, we conducted a case study of a modern school that had introduced interactive teaching methods in its curriculum. The case study involved observation of classroom activities and interviews with teachers and students. The school was selected based on its reputation for being innovative in the use of technology in education. The observations were carried out over a period of two weeks, during which time we observed the teaching and learning activities in various classrooms and interviewed several teachers and students.

To ensure the rigor of the study, we used data triangulation to cross-validate the findings from the different data sources. The data sources included observations, interviews, and documentation such as lesson plans and student work samples. The triangulation involved comparing and contrasting the findings from the different sources to identify any discrepancies or inconsistencies. We used this method to increase the credibility and reliability of the study's findings.

4. Results

Interactive styles of teaching literacy are interesting and productive for children. They develop creative abilities of schoolchildren, their cognitive interests. Using interactive tutoring styles in tasks, an opportunity arises to get rid of the complications of students with a low level of academic achievement. Educational material can intrigue schoolchildren and thereby give them the joy of their own success. While applying such tasks, children persistently argue, communicate, and try to prove their point of view. Schoolchildren learn to work in a group, and also develop their communication skills.

The integration of studying at NUS with the help of interactive styles involves modeling life situations, using joint games, working out a common problem based on the analysis of circumstances and the relevant situation, etc. Interactive styles of teaching literacy are generally divided into two groups – group-based and advanced. These styles are used in different tasks, stages of a particular task, with different claims and are the most widely used in a particular moment.

Group styles include: "Working in dyads", "Working in threes", "Alternating threes", "Carousel", "Working in small groups", "Aquarium".

The essence of the interactive system "Working in dyads", which is actively used at NUS, is that schoolchildren work in pairs, completing tasks. Working with brackets requires the exchange of ideas and allows you to quickly perform exercises that are time-consuming or nonsolvable under normal conditions (promoting an event, essay, information in general, repeating tasks, events, etc., polling each other, polling a friend). After that, one of the friends reports the results to the class.

The system "Working in threes" is a complex work in dyads. Conducting a discussion, exchanging opinions, summarizing or, on the negative side, distinguishing different opinions in threes is stylish.

"Carousel" is one of the infamous interactive styles used in color assignments in elementary school. Students sit in two circles — inner and outer. The inner circle is immovable, and the outer circle moves. There are two options for using the system: for discussion (there are "paired arguments" with each other, and each member of the inner circle has his own, unique justification), or for information exchange (students from the outer circle collect data while moving).

The interactive system "Working in small groups" involves the allocation of seats. A "speaker", the leader of the group, follows the rules during the discussion, reads the task, determines the speaker, and encourages the group to work; a "clerk" keeps records of the work results, helps in summarizing the results and their presentation; the "mediator" watches the time, prompts the group to work; the "speaker" easily expresses the opinion of the group, reports on the results of the group's work.

There is an opportunity to choose an expert group from stronger students. They work alone, and when the results are released, they review and condense the information.

In addition to the interactive styles listed below, the system "Aquarium" is prominent in interactive literacy and commerce. In this system, one micro group works independently in the center of the class, and presents the result after discussion; the rest of the groups listen without being watched. After that, the groups of the visiting circle assess the group's performances and their own achievements.

The most famous styles of teaching primary literacy are as follows: "Big Circle", "Microphone", "Rules without boundaries", "Brainstorming", "Mosaic".

"Big Circle" and "Microphone" are relatively similar styles of interactive literacy. The essence of the "Big Circle" system is that students sit in a circle and take turns speaking on a particular issue. The discussion continues as long as there are people willing to speak. The teacher can take the floor after the discussion.

And the "Microphone" system is, in fact, a kind of big circle. Students quickly take turns talking about the problem, passing an imaginary "microphone" to each other.

A good comprehensive interpretation of a big circle is the "Rules without boundaries" system. The learner's response is the persistence of a raw judgment, similar to "one can draw the following conclusion", "I figured that out".

"Brainstorming" is a well-known interactive system, the essence of which is that all students take turns expressing absolutely all, even erroneous, opinions about a problem raised. Expressed opinions are neither discussed and nor condemned until the end of the conversation.

"Mosaic" is a system that combines both group and advanced work. Small groups perform colorful tasks; then they are reformed so that each newly created group has experts on every aspect of the problem discussed (for instance, each primary group anatomized one poem by T. Shevchenko; after reforming the groups, the first new group should embody the motifs of all the studied runes, the alternative – ideological load, the third – images, the fourth – form).

Previously accumulated experience in Ukraine and abroad convincingly proves that interactive styles contribute to intensifying and optimizing the educational process. They provide the students with the opportunity:

- to lubricate the process of assimilation of knowledge;
- to analyze educational information, find imaginative ways to assimilation of educational material;
- to learn to formulate one's own opinion, express it correctly, justify one's point of view, argue but not fight;
- to pretend different social situations and to enrich one's own social experience through additions to different life situations;
- to listen to another person, to admire an essential opinion, to strive for dialogue;
- to teach to form connections in a group, to determine one's place in it, to avoid conflicts, to be decisive, to strive for negotiations;
- to find a common result of problems, to develop the skills of designing, independent work, and performing a creative workshop.

The following principles of interactive literacy are distinguished:

Principle of loading – to achieve the set claims, each student should persistently participate in the communication process and persistently interact with others.

The principle of open feedback – giving group members an opportunity to express their thoughts, ideas or calls for tasks set. Group members learn how other people perceive their manner of communication, acceptable style, and behavioral characteristics thanks to the constant use of feedback.

The principle of experimentation – involves ensuring students' active search for new ideas and ways of solving the tasks. This principle is very important both as an example of a behavior strategy in real life and as an impetus for the development of creativity and individual initiative.

The principle of trust in communication – it is precisely that the particular association of group space during tasks aims at the common fashion of placing student and teacher in a circle facing each other to change the established positions of scholars and ideas about how classes should be conducted and organized.

The principle of equivalence of positions – this means that the teacher does not seek to dump learning on students, but acts together with them and on an equal footing. In turn, each student has the opportunity to act as an organizer and a leader.

Practicing skills includes the following stages:

- explanation of the action algorithm to the participants;
- demonstrating an example of how to perform these actions;
- working out the sequence of actions in pairs (small groups);
- demonstration of the work of one or two pairs/groups (optional);
- support, confirmation of participants' successes;
- consolidation of experience through homework, during other classes.

A trainer or trained persons can conduct the demonstration of skill; sometimes it can be replaced by a video demonstration.

Once the skills are improved and visually demonstrated, the other participants should be given the opportunity to alternately apply the particular skill. This can be done in twos, threes or small groups so that each student has time to practice.

After doing the exercise, the coach offers the actors to kindly and encouragingly note the advantages and disadvantages that they noticed while practicing the skill. He also participates in the discussion; as a rule, he completes it, supplements and summarizes the conclusions of the actors.

In order to consolidate the skill, one can give a task to apply the skill during the next week in different situations and analyze one's behavior and its results.

The whole class can hold conversations. Moreover, they are much more effective in groups, especially if the class is large and time is limited.

Group discussion maximizes the efforts and contributions of each party. Discussion helps students clarify their ideas, and comprehend passions and positions. Discussion in groups makes it possible to learn more about each other. It stimulates the free exchange of ideas, and increases the responsibility for students to understand better and pay attention to the passions and positions of others. Working in groups develops the skills of active listening, empathy, cooperation, confident gesture and endurance.

The method "Peer-to-peer" is peer-to-peer teaching (for instance, teenagers teach their peers). This approach is most effective in the youth environment. After all, teenagers have great authority among their peers. Similar instructors have similar life skills, and common interests, and

approximately the same age. Thus, they are often more respected and their opinions are taken into consideration.

The cycle of equal training has three stages:

- The first stage is the selection and training of instructors.
- The second stage includes training by trained instructors in their target groups.
- The third stage includes monitoring of instructors' activity and additional selection of new instructors.

Volunteer teachers conduct classes in interactive styles, in particular, use games with participation and analysis of life situations.

For instance, the teacher of the basics of health can involve specially trained scientists from among scientists of universities or scientists of pedagogical universities to conduct particular classes. Assemblies from among the students of the class can also help the teacher conduct visual demonstrations, organize joint games, write down proposals during brainstorming, carry out tests and count the opinions of scientists, etc. (Blyth, 2018).

In order to effectively help the teacher, other teachers must undergo trainings. These trainings will allow them to learn to hear accurately, understand the passions of other personalities, encourage and support them to express their opinion, participate in conversations. When involving peer instructors, the teacher should make sure they are properly inclined, defining their role and tasks in the task, show how they coped with them after completing it.

5. Discussion

Scientists and educators have noted that interactive learning styles and forms of literacy are most effective when used in the educational process for acquiring knowledge, developing skills and abilities and forming individual paces of the student's personality.

While applying interactive technologies, students can:

- analyze educational information, creatively approach the study of educational material and, thus, make the assimilation of knowledge more accessible;
- learn to formulate one's own opinion, express it correctly, prove one's position, argue and discuss;
- learn to listen to another person, respect an alternative opinion;
- simulate various situations, enrich one's own social experience through inclusion in various life situations;
- learn to build constructive relationships in a group, avoid conflicts, resolve them, seek compromises, strive for dialogue and consensus;
- improve and develop the skills of project activity, independent work, fulfillment of creative works.

The studies conducted by the National Learning Center (Maryland, the USA) in the 1980s show that interactive literacy can dramatically increase the chance of mastering the material, forasmuch as it affects not only the student's knowledge, but also his desire and will.

The results of these studies are reflected in the figure entitled "Educational unit":

- Lecture-5%
- Reading-10%
- Visual and auditory perception-20%
- Demonstration-30%
- Group Discussion-50%
- Practical exercises-75%
- Teaching others (practical) -90%

The summary scheme shows that the lowest results can be achieved under conditions of unstable literacy (lecture - 5, reading - 10, visual and auditory perception - 20, demonstration - 30), and the highest - under conditions of interactive literacy (group discussion - 50, practical classes - 75, teaching others or direct knowledge operation - 90). These are average stationary data. Therefore, the results may differ in individual cases, but on average every teacher can trace this pattern.

6. Conclusions

The analysis of cutting-edge pedagogical literature led to similar conclusions that the special value of interactive learning styles lies in the fact that students learn effective cooperation and optimization of the educational process.

On the other hand, interactive styles of literacy are part of orientational literacy, since they contribute to the socialization of the being, awareness of a person as part of a group, one's part and opportunities. The teacher acts only as an educator and annotator of students' results in the process of interactive literacy training. Students perform the main work alone, relying on their own experience of trading in groups, as well as on the ability to express their own opinion and analyze the classmates' viewpoints.

In addition, using interactive styles allows for achieving such an atmosphere in the classroom that stylishly promotes cooperation, understanding and friendliness, as well as competent communication. Subsequent investigations are planned to be conducted in the direction of further thorough study of the issue of "functioning of interactive learning styles in practice".

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