From Theory to Classroom: Expert Evaluation and Practitioner Insights on Active Learning Models in K–12 Education

Vania Sivakova, Plovdiv University, Bulgaria
Ilitsa Daskalova, Plovdiv University, Bulgaria
Mariyana Bizova-Georgieva, Plovdiv University, Bulgaria
Galin Tsokov, Plovdiv University, Bulgaria
Plamen Miltenoff, University of Economics – Varna, Bulgaria

The Asian Conference on Education & International Development 2026
Official Conference Proceedings

Abstract

Active learning has become a central priority in contemporary education as systems shift from traditional, teacher-directed instruction toward competency-based, inquiry-driven and student-centered learning environments. Despite increasing adoption, the theoretical grounding and practical applicability of active learning models remain fragmented, and there is limited comparative evidence on how these models function across grade levels and school contexts. This study aims to systematize the field and examine how educational practitioners perceive the relevance and feasibility of selected models. A mixed-method design was applied in two phases. In stage one, a comparative analytical framework and expert evaluation rubric were developed to assess models categorized into four theoretical clusters: constructivist models (e.g., inquiry-based learning, experiential learning), project-oriented models (project- and problem-based learning), cooperative models (cooperative and peer learning), and technology-mediated models (flipped classroom, gamification, blended learning). In the second stage, a survey was conducted among experts, including teachers, principals and training specialists (N = 40), focusing on the practices, barriers and needs related to the implementation of these models. An author's survey was developed for the purposes of the study. Preliminary findings indicate strong consistency between expert evaluations and practitioner preferences, with constructivist, project-oriented and cooperative models rated as most feasible. Technology-mediated models demonstrate potential but require targeted professional development and supportive conditions for successful implementation.

Keywords: active learning, instructional models, pedagogical practices, K–12 education, teacher professional development, implementation of innovative models

iafor
The International Academic Forum
www.iafor.org

Introduction

In the context of a rapidly evolving technological reality and the reorganization of social processes that increasingly function through complex collaboration, traditional transmissive pedagogy is gradually losing its functional relevance. This shift is driven by contemporary educational demands, which no longer emphasize the passive reproduction of knowledge but instead focus on activating cognitive engagement and constructing knowledge through action. These circumstances have led to the emergence of a new educational paradigm manifested in the principles and practices of active learning. The foundational definition proposed by Bonwell and Eison (1991) describes this process as "…anything that involves students in doing things and thinking about the things they are doing." This transition should not be viewed merely as a methodological adjustment, but rather as a strategic adaptation of the educational system to the demands of developing sustainable competencies. The transformation is expressed most clearly in the reconfiguration of roles within the classroom, where the student is no longer a passive recipient of knowledge but an active constructor of it. At the same time, the teacher moves beyond the role of a sole lecturer and takes the position of a facilitator and architect of the learning environment. From the perspective of educational productivity, active learning contributes to overcoming cognitive passivity and to adapting to a technological environment that requires critical thinking. This transformation affects both participants in the educational process. On the one hand, teachers activate their creative potential by directing their influence toward designing and shaping the learning process. On the other hand, students adapt their own learning activity through efforts oriented toward construction and creation, which in both cases stimulates critical thinking, adaptability, and self-actualization.

The relevance of the topic is driven by the urgent need to renew traditional teaching methods and adapt them to the demands of a dynamic social and technological reality. The significance of the study lies in the necessity for school education to develop key competencies that extend beyond the reproduction of factual knowledge.

The main objective of this paper is to study and analyze active learning models. To achieve the main objective, we used the methods of theoretical analysis and empirical research. The main purpose of theoretical analysis is to develop a theoretical framework that identifies the main levels and domains of active learning, while also examining how this theoretical foundation is reflected and applied in contemporary school practice. Furthermore, the study seeks to determine whether different models of active learning are implemented intermittently or as a sustained pedagogical approach through empirical research.

To achieve this primary objective, the following specific research tasks were formulated:

- To develop a theoretical framework that identifies functional categories and comparative matrices of the domains of active learning, thereby contributing to overcoming the fragmentation in their conceptual understanding.
- To establish constructive links between classical theoretical approaches to active learning and actual pedagogical practices within the educational environment.
- To analyze and systematize the perspectives of teachers, school principals, and educational specialists in order to assess the effectiveness, efficiency, sustainability, and level of applicability of different active learning models, taking into account their familiarity with these methods.

- To identify specific challenges faced by professionals when implementing such approaches and to outline the types of support required, particularly in relation to technologically mediated methods.
- To provide an evidence-based conceptual framework and empirical data that can support educational practitioners in the process of renewing and adapting traditional teaching methods to active learning approaches.

For the purposes of the empirical research, we created an author's survey aimed at active learning experts. The survey contains demographic data and 10 questions related to the application of active learning methods, challenges and successes. Participants were given the opportunity to comment on the active learning methods and give their opinion on their application. The participants are active learning experts. We conducted the study in November 2025 through survey with Google Forms. To analyze the results, we used MS Excel 365. A descriptive analysis was performed, presented through frequency distribution, diagrams and analytical analysis.

Theoretical Framework

In the scholarly literature dedicated to conceptualizing and formulating educational theories – particularly those concerned with research-based approaches aimed at establishing functional models and techniques for activating students and positioning them as active participants in the learning process – the conclusions often remain fragmented and subject to multiple interpretations. If we examine some of the key definitions related to the concept of active learning, particularly those formulated after 2000, several representative perspectives can be identified. According to Prince (2004), "…active learning is generally defined as any instructional method that engages students in the learning process." Radev (2014) defines learning as "…a change in behavior through the construction of personal experience and the individual interpretation of the world through one's own activity." Yustina et al. (2024) describe the active learning model as "…a teaching approach that emphasizes the active involvement of students during the learning process." Taken together, these statements – grounded in diverse studies – demonstrate that the general understanding of active learning has evolved alongside the development of contemporary educational paradigms. Notably, while early interpretations primarily defined student activation in terms of direct participation in learning activities, later perspectives broaden this view. Activity becomes enriched with the dimensions of personal experience and individuality, eventually leading to its current interpretation as a comprehensive methodological concept that integrates teaching and learning through collaborative models of active learning.

Active Learning Models

Project-Oriented Models

This category includes three of the most influential models: problem-based learning, project-based learning, and phenomenon-based learning. According to Savery (2006), problem-based learning is "…an instructional (curricular) learner-centered approach that empowers learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop viable solutions to a defined problem." Thomas (2000), in his report *A Review of Research on Project-Based Learning*, defines project-based learning as "…a model that organizes learning around projects." Schaffar and Wolff (2024) note that "…the idea of phenomenon-based learning was introduced into the Finnish national curriculum for basic education in 2014…"

and further add that this concept "…is often associated with traditions in educational psychology, constructivism, problem-based learning, and inquiry-based learning." What these models share is their common function: structuring large-scale learning units organized around a central problem, project, or phenomenon in order to engage learners in complex and realistic scenarios that require both the acquisition and the application of knowledge. Their differences become apparent in the primary focus of each model. In problem-based learning, the emphasis is placed on the process of inquiry and problem-solving. In project-based learning, the focus lies on the product, that is, the final outcome. In phenomenon-based learning, the central aim is the holistic understanding of a phenomenon or concept. These essential distinctions lead to variations across multiple dimensions of the learning process, including the starting point, the expected outcomes, the disciplinary structure, the guiding question, the learning objectives, the roles of teachers and students, and the approaches to assessment. Consequently, differences can also be observed in terms of the duration of learning activities and the contexts in which these models are applied.

Constructivist Models

These models essentially reflect the cognitive mechanisms through which inquiry and experience are transformed into knowledge. Their role is to structure and organize the fundamental components of learning related to questioning, investigation, and the application of acquired knowledge in various contexts. They may function both as independent pedagogical strategies and as integral components of broader and more comprehensive project-oriented models of active learning. Examples of such process-oriented or cognitive models include inquiry-based learning, experiential learning, and case-based learning. According to Pedaste et al. (2015), "…inquiry-based learning seeks to engage students in an authentic process of scientific discovery." David Kolb (1984) defines learning as "…the process whereby knowledge is created through the transformation of experience." Similarly, Das et al. (2021) describe case-based learning as "…an established two-way active learning method in which students acquire concepts by solving cases or problems under the guidance of a facilitator." The main differences among these models lie in their primary focus. In inquiry-based learning, the emphasis is placed on the process of formulating questions and seeking answers. In experiential learning, the focus lies on the cognitive processes through which experience is transformed into knowledge. In case-based learning, the emphasis is directed toward the analysis of situations and the application of theoretical knowledge in practical contexts.

Cooperative Models

These models are oriented toward the social organization of the learning environment. Their primary objective is to structure interaction among students in a way that stimulates and sustains active learning. This category includes cooperative learning, reciprocal teaching, and fundamental interactive techniques. According to Johnson et al. (2013), "…cooperative learning is the instructional use of small groups so that students work together to maximize their own and each other's learning." The relationships among these approaches can be understood as a hierarchically organized system in which the individual components are not in opposition but rather complement each other and function in coordination. The emphasis is therefore not on distinguishing them as separate methods, but on understanding how they interact within a shared pedagogical logic. At each level of this structure a specific function can be identified: cooperative learning serves as the overarching conceptual framework; reciprocal teaching operates as a related collaborative model that applies its principles; and

fundamental interactive methods function as universal instructional tools that can be integrated into all other models.

Technologically Mediated Models

This section examines models whose primary function is associated with rethinking and reorganizing the temporal, spatial, and instrumental parameters of pedagogical practice. Unlike the previous sections, which emphasize teaching methods (Sections I and II) or the social dynamics of the classroom (Section III), the focus here is placed on the transformation of the organizational logic of learning. These models can also be described as organizational, as they aim to intentionally restructure the learning environment. At the same time, they possess a technological dimension, since such reorganization is often initiated, supported, or made possible through digital technologies. Through these models, fundamental questions concerning the conditions of learning are addressed – namely where (in the classroom, at home, or in an online environment) and when (synchronously or asynchronously) active learning takes place. Examples included in this category are the flipped classroom, gamification, collaborative learning environments, and other digitally mediated approaches. The models discussed in this section form an integrated system in which differences are not primarily typological but structural and functional. Rather than representing alternative pedagogical solutions, they constitute different levels within a unified, technologically mediated educational ecosystem. The distinctions among them arise from the scale of the intervention and the pedagogical function each performs. Blended learning can be understood as a macro-organizational framework that combines face-to-face and online components and restructures the spatial and temporal logic of the educational process. In this sense, it functions as a broad strategic category within which more specific models are implemented. The flipped classroom represents a particular configuration within this paradigm. It reorganizes instructional time by relocating lower-order, lecture-based activities outside the classroom and freeing in-class time for cognitively more complex and interactive forms of learning. In contrast, game-based learning and gamification operate at a different level. Their primary role is not to reorganize time and space, but to transform the motivational architecture of the learning process. Game-based learning uses a game environment as a comprehensive context for learning, whereas gamification integrates game mechanics into non-game educational content in order to enhance engagement and intrinsic motivation. In this way, these models can be understood as complementary layers that can be integrated into the organizational structures of blended and flipped learning environments.

The proposed typology of active learning models makes it possible to trace the different levels at which the transformation of the traditional instructional process occurs. The analysis demonstrates that active learning is not implemented through a single pedagogical approach but through a system of interconnected models that influence different components of the educational environment. Project-oriented models structure learning around complex problems and authentic tasks; constructivist models emphasize the cognitive processes of inquiry, experience, and interpretation; cooperative models reorganize social interaction within the classroom; and technologically mediated models transform the spatial, temporal, and instrumental conditions of learning. This multi-layered structure indicates that the effective implementation of active learning does not rely on the isolated use of individual methods, but rather on the integration of diverse pedagogical strategies within a coherent educational system. The interaction between cognitive, social, and technological components thus reveals the potential of active learning as a leading pedagogical paradigm in contemporary education.

Analysis of the Results of the Survey Conducted With Experts

Description of the Participants

A large part of the experts who participated in the survey were female. They are 85% while men are 15%. This can be explained by the fact that most of the experts are teachers, and this profession is chosen mainly by the female gender.

Most participants are from a large city. There are fewer of them from a small town and a village. Accordingly, those from a large city are 75%, from a small town 15% and the remaining 10% are from a village.

The participants are between 25 and 64 years old. Most experts are aged 47 to 64 – 55% or more than half. There are also quite a few young participants aged 25 to 35 – 20%. Almost as many are experts aged 36 to 46 – 25%.

The teaching experience of participants ranges from 2 and 40 years. The largest group consists of experts with under 10 years of experience, accounting for 37,5% of the total. The remaining participants are distributed almost evenly among the other categories: 20% have between 10 and 20 years of experience, 20% have 20 to 30 years and 22,5% have between 30 to 40 years.

The study was conducted in several types of schools, namely: primary school, secondary school, vocational high school and private school. Most experts are from primary schools – over half 62,5%. Next are the participants from secondary schools – 23% and 12,5% participated from vocational high schools. The least experts are from private schools – only 2,5%.

Results of the Survey

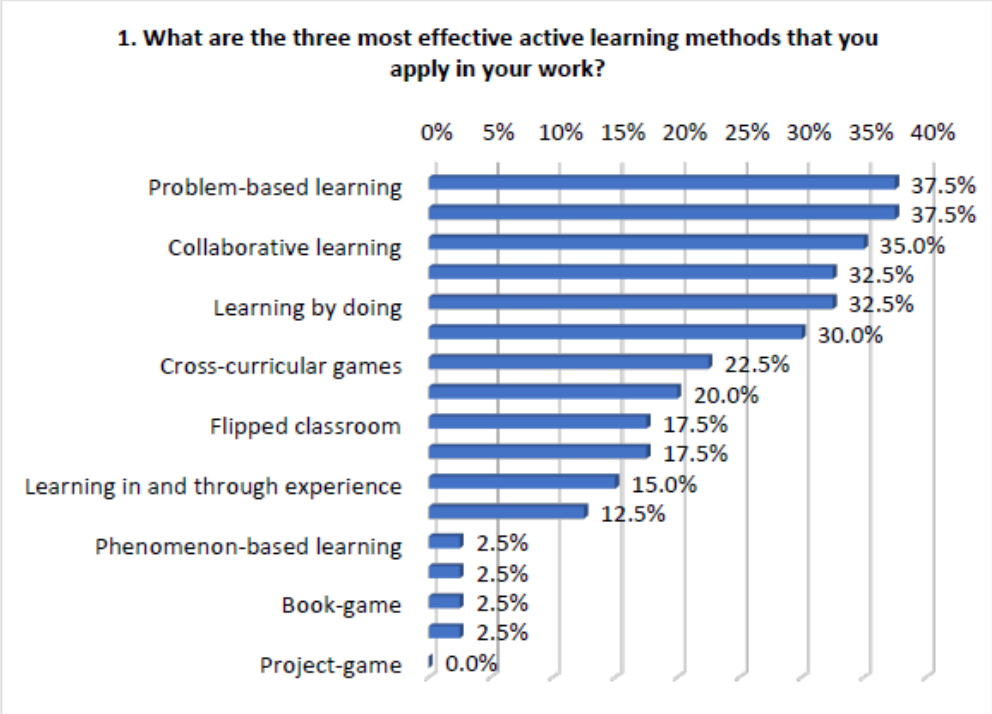
Active learning experts were asked the question: What are the three most effective active learning methods that you use in your work? Answer options were listed, and in addition to them, participants had the opportunity to add a method that was not listed among those listed. The results presented in Fig. 1 show that the most effective active learning methods according to experts in active learning, ranked in order of effectiveness, are:

- Problem-based learning – 37,5%;
- Project-based learning – 37,5%;
- Collaborative learning – 35%;
- Debates and discussions – 32,5%;
- Learning by doing – 32,5%;
- Gamification – 30%;
- Cross-curricular games – 22,5%;
- Case-based learning – 20%;
- Flipped classroom– 17,5%;
- Inquiry-based learning – 17,5%;
- Learning in and through experience – 15%;
- Creative learning – 12,5%.

The least mentioned methods by 2.5% of experts: Phenomenon-based learning, Simulations and role-playing games, Book-game, Escape room. No one mentioned the project-game method.

Figure 1

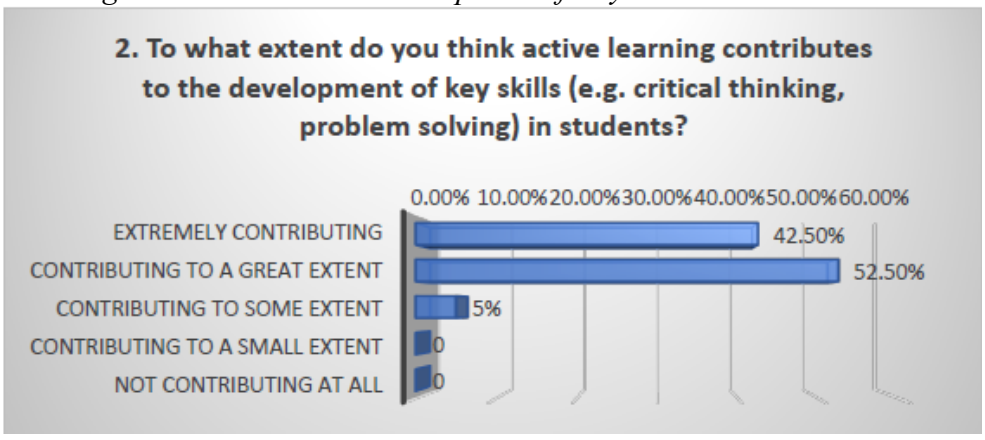
Distribution of Answers to the Question: "What Are the Three Most Effective Active Learning Methods That You Apply in Your Work?"



The experts are categorical that active learning contributes to a very large extent to the development of key skills in students (e.g. critical thinking, problem solving). Over half 52,5% indicated that it contributes to a great extent, and a large part of the rest or 42,5% chose the answer extremely contributes. The distribution of answers is given in Fig. 2. The diagram shows that no one indicated that it does not contribute or contributes to a small extent. According to only 5%, active learning contributes to some extent to the development of key skills.

Figure 2

Distribution Diagram of Responses to the Question: "To What Extent Do You Think Active Learning Contributes to the Development of Key Skills?"



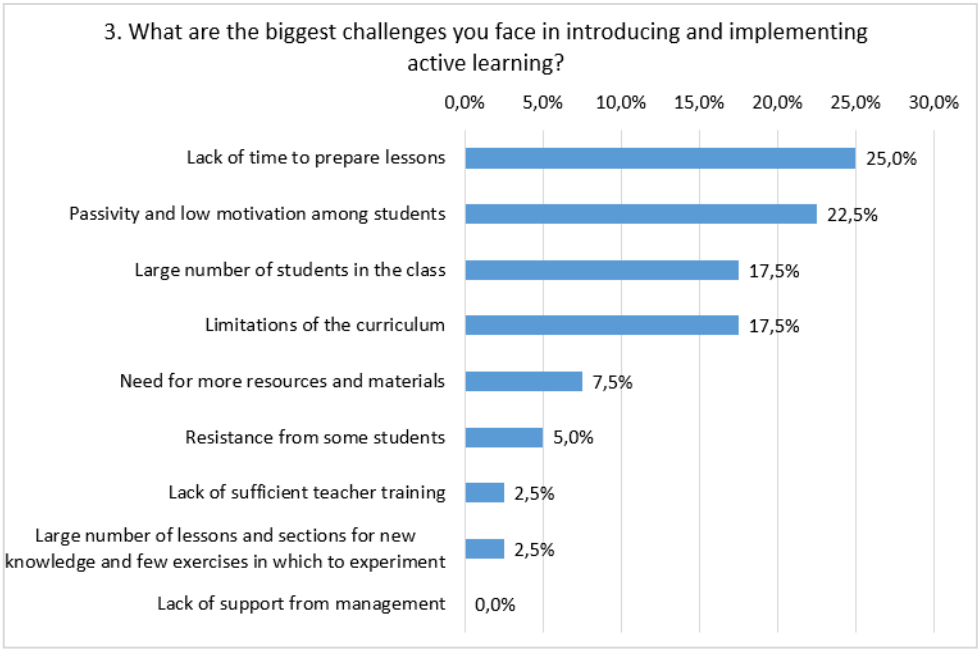
The implementation of active learning is also associated with challenges. The experts had to indicate what are the biggest challenges they face in introducing and implementing active learning. The experts ranked the challenges in order of importance as follows (Fig. 3):

- Lack of time to prepare lessons – 25%;
- Passivity and low motivation among students – 22,5%;
- Large number of students in the class – 17,5%;
- Limitations of the curriculum – 17,5%;
- Need for more resources and materials – 7,5%;
- Resistance from some students – 5%;
- Lack of sufficient training for teachers – 2,5%.

No one indicated the lack of support from the management as a challenge, which may mean that the management is more supportive of the use of active learning. Additionally, a few participants indicated that the main problem is the large number of lessons for new knowledge and few exercises in which to experiment.

Figure 3

Distribution Diagram of Responses to the Question: "What Are the Biggest Challenges You Face in Introducing and Implementing Active Learning?"



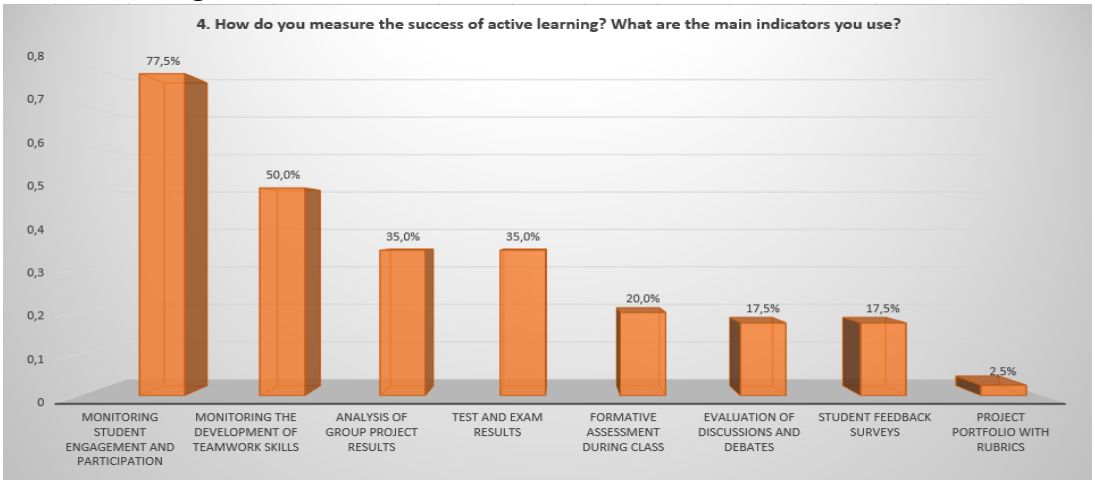
The implementation of active learning requires that its effect can be measured using various criteria, and the experts had to answer the questions: How do you measure the success of active learning? What are the main indicators that you use? The experts were offered options, but they had the opportunity to add others. Fig. 4 shows the distribution of the answers ordered by importance:

- Monitoring student engagement and participation – 77,5%;
- Monitoring the development of teamwork skills – 50%;
- Results of tests and exams – 35%;
- Analysis of the results of group projects – 35%;
- Formative assessment during class – 20%;
- Evaluation of discussions and debates – 17,5%;
- Student feedback surveys – 17,5%.

A small number of experts also indicated a project portfolio with rubrics as a way to measure the success of the application of active learning.

Figure 4

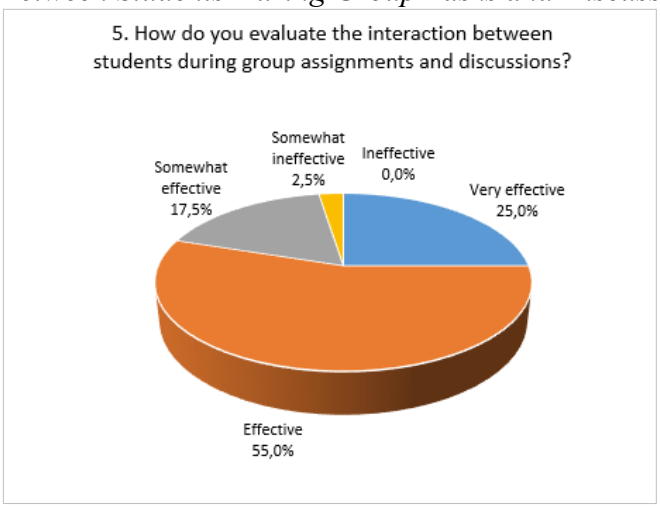
Distribution Diagram of Answers to the Question: "How Do You Measure the Success of Active Learning?" "What Are the Main Indicators You Use?"



The application of active learning has many aspects, including interaction between students, and therefore the experts were asked: "How do you assess the interaction between students during group tasks and discussions?" Fig. 5 shows the distribution of answers. The diagram shows that 80% of the participants are categorical that the interaction between students is categorically effective (including answers very effective – 25% and effective – 55%). A small part 17,5% chose the answer rather effective. No one believes that the interaction is ineffective, and very few only 2,5% indicated that it is rather ineffective.

Figure 5

Distribution Diagram of Answers to the Question: "How Do You Assess the Interaction Between Students During Group Tasks and Discussions?"

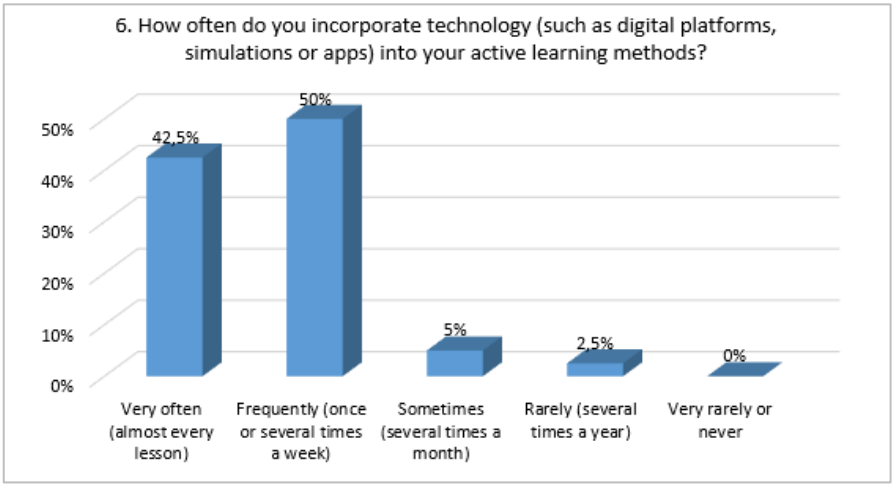


Nowadays, technologies are present not only in a large part of our daily lives, but also in the field of education. The virtual space is rich in platforms and electronic resources that are used for various purposes. Many of them can also be used in the organization of the application of active learning. The experts had to indicate whether they use digital technologies in active learning methods. When asked: "How often do you include technologies (such as digital

platforms, simulations or applications) in your active learning methods?" the participants are categorical that they use them relatively often. Almost half 42,5% indicated that they use digital technologies very often, almost in every lesson, and half use them often (once or several times a week). The rest use them rarely – 2,5% or sometimes – 5%. Fig. 6 shows the distribution of answers. There are no experts who rarely or never use digital technologies in active learning methods. This means that digital technologies are necessarily present in active learning methods.

Figure 6

Distribution Diagram of Responses to the Question: "How Often Do You Include Technologies in Your Active Learning Methods?"



In order to implement active learning methods, teachers must have knowledge about them, as well as skills and competencies on how to use them. Therefore, we also asked the experts "What role does teacher preparation play in the successful implementation of active learning?" The results show that teacher preparation is a very important factor. More than half of the participants or 64% answered "extremely important," and the remaining 36% answered "important." No one indicated an answer that it was not at all important or slightly important, as can be seen in Fig. 7.

Figure 7

Distribution Diagram of Responses to the Question: "What Role Does Teacher Preparation Play in the Successful Implementation of Active Learning?"

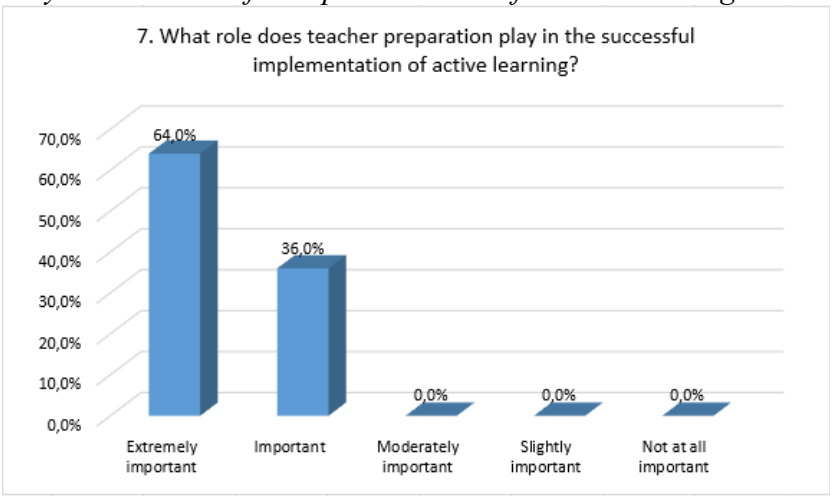
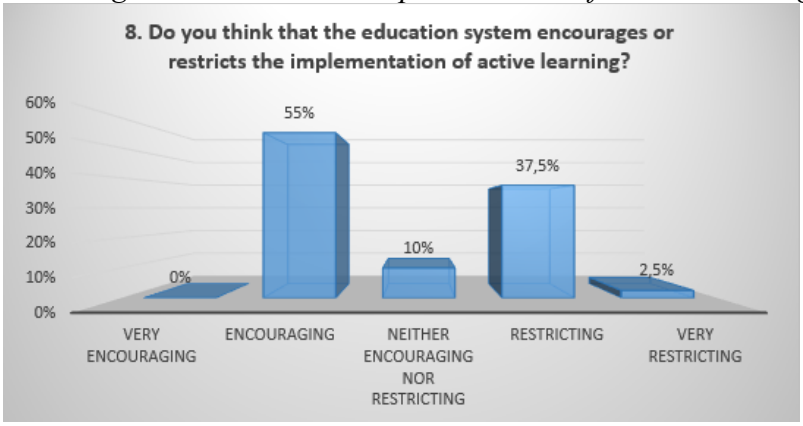


Figure 8

Distribution Diagram of Answers to the Question: "Do You Think That the Education System Encourages or Restricts the Implementation of Active Learning?"



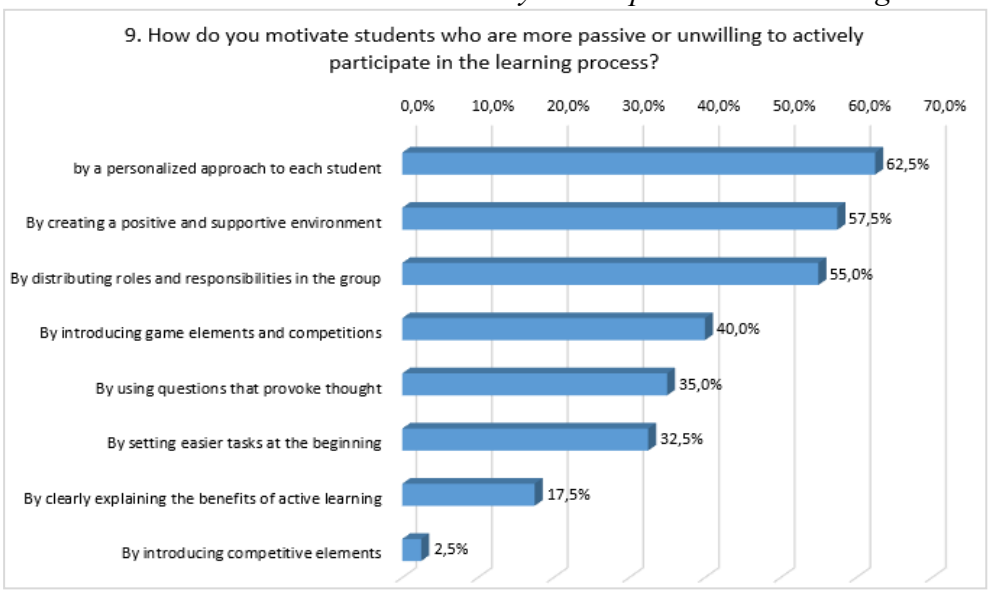
The results regarding whether the education system encourages or restricts the implementation of active learning show that the answers are particularly categorical. More than half of the experts shared that the education system encourages, although not extremely much. A significant part of 37,5% answered that it restricts, while 10% hesitated whether to encourage or restrict. Only 2,5% believe that it restricts a lot. The distribution of answers can be seen in Fig. 8.

Although active learning methods increase student engagement, some of them are still more passive. The experts had to indicate how they motivate students who are more passive or do not want to actively participate in the learning process. Several options are listed, and they can also add an answer (Fig. 9). The results show that experts try to motivate the passive students most often through:

- a personalized approach to each student – 62,5%;
- creating a positive and supportive environment –57,5%;
- distributing roles and responsibilities in the group – 55%;
- introducing game elements and competitions – 40%;
- using questions that provoke thinking – 35%;
- setting easier tasks at the beginning – 32,5%;
- clearly explaining the benefits of active learning – 17,5%;
- introducing competitive elements – 2,5%.

Figure 9

Distribution Diagram of Answers to the Question: "How Do You Motivate Students Who Are More Passive or Do Not Want to Actively Participate in the Learning Process?"



The biggest change as a result of the implementation of active learning, which the experts observed, is increased motivation and interest in learning. Indicated by almost half of the participants – 47,5%. Students also experience greater self-confidence as a result of active learning, according to 15% of the indicated answers. Less noticeable and indicated by 12,5% of the experts are:

- Higher engagement in the learning process;
- Better critical thinking and analysis skills.

No one indicated that as a result of active learning, students have better academic results. The improved ability to work in a team is weakly expressed. The answers can be seen in the diagram in Fig. 10.

Figure 10

Distribution Diagram of Responses to the Question: "What Is the Biggest Change You Have Observed in Your Students as a Result of Implementing Active Learning?"

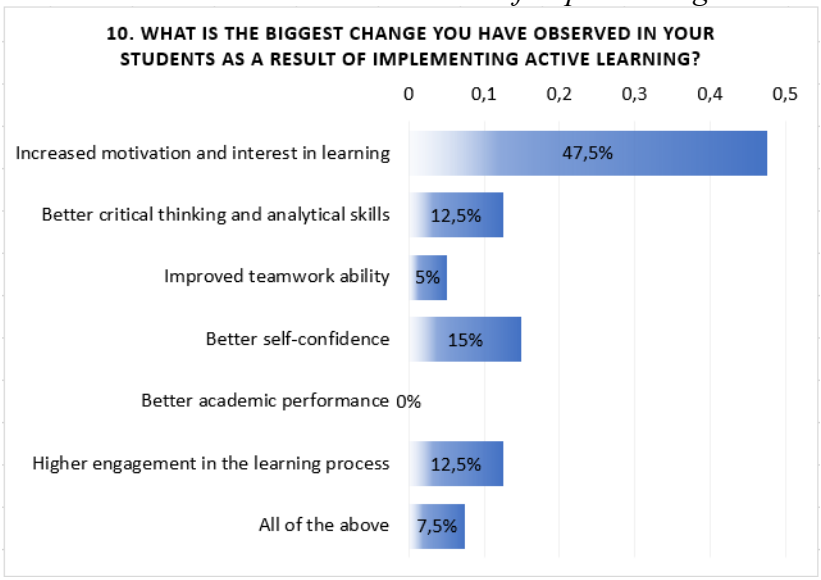
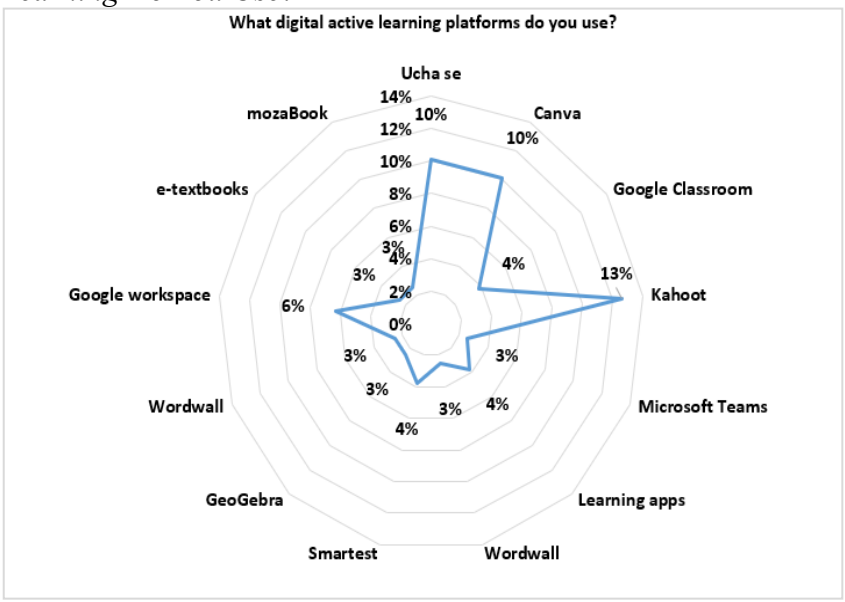


Fig. 11 shows the digital platforms that participants indicated that they use when applying active learning methods. The most used application is the Kahoot application, mentioned by 13%. Leading are the platforms of Ucha.se and Canva, which are mentioned by 10% of the experts. Then there are Google products 6% and in particular Google Classroom – 4%. Less frequently mentioned are the platforms and applications: Microsoft Teams, Learning apps, Wordwall, Smartest, GeoGebra, Wordwall, electronic resources offered by publishing houses, mozaBook. They are mentioned by 3% of the experts.

The following applications, sites and platforms are rarely used: Padlet, MindMeister, Mozaweb, Mozabook, Prepodavame.bg, Moodle, BBC Learning Hub, Digital Backpack, Educaplay, Gemini, Notebook LM, Izzi, Khan Academy, Toytheatre, Jigsaw planet, Gamma, Moodle, Quizlet, Live Worksheets, Thinkific, Knigovishte, Igrovi platforms, Code.org, Scratch.mit.edu, "Voevodi," Epoha online, etc.

Figure 11

Distribution Diagram of Answers to the Question: "What Digital Platforms for Active Learning Do You Use?"



Conclusion

The present study presented a systematic analysis of active learning as a pedagogical concept, framework and applied practice in Bulgarian school education. The theoretical review outlined active learning as a fundamental approach that shifts the pedagogical focus from the reproduction of knowledge to its construction through activity, interaction, reflection and autonomous participation. The classification of the models into four functional areas allowed for a comprehensive understanding of their logic, pedagogical mechanisms and potential for the development of key competences in the spirit of contemporary educational policies and the European Skills Framework for the 21st Century.

The results of the survey conducted among active learning experts confirm the trends outlined at the theoretical level. The participants recognize active learning as a significant and necessary direction in the development of school education and highly evaluate it in terms of its effectiveness in engaging students, stimulating critical thinking, collaboration and real-world application of knowledge. At the same time, the data show varying degrees of

confidence and practical experience in the implementation of individual models, with socio-structural approaches being strongly established; process and framework models being used purposefully but unevenly; and emerging models, including those integrating artificial intelligence, VR/AR and heutagogical principles, remaining in an early phase of experimentation. There are also clear barriers related to assessment, content load, teachers' pedagogical security and lack of centralized methodological resources. The synthesis of critical assessments and recommendations shows that the potential for implementing active learning in the Bulgarian education system is significant, but its sustainable integration requires targeted support and strategic consistency. The most significant areas for improvement are harmonization of assessment with the competency model; optimization of curricula with an emphasis on deep learning; professional development oriented towards facilitation and pedagogical modeling; creation of national resource banks; and introducing an ethical and functional framework for the use of new technologies, including artificial intelligence.

There are a number of active learning methods, some of which are very common in practice, while others are less well known. Among the most effective methods according to active learning experts are: problem-based learning, project-based learning, collaborative learning and group work, debates and discussions, learning by doing, gamification, cross-curricular games, case-based learning, flipped classroom and inquiry-based learning. Less well-known and used active learning methods are: phenomenon-based learning, simulations and role-playing games, book-game, escape room and project-game. The important is that these methods contribute to the development of key skills. Although teachers face a number of challenges when applying them such as lack of time to prepare lessons, passivity and low motivation among students, large number of students in the class, limitations of the curriculum, this does not stop them from using them. Increased student engagement and participation is observed. Interaction between students during group tasks and discussions is clearly effective. Discussion and debate assessment and student feedback surveys are rarely used as indicators of the success of active learning.

According to experts, active learning develops socio-emotional learning, leads to understanding and longer-term memorization of new knowledge and its application in real life, increases students' motivation, interest and desire to work/study.

Virtual space is rich in platforms and electronic resources that are used for different purposes. Experts relatively often use digital technologies in active learning methods in almost every lesson (such as digital platforms, simulations or applications). The education system encourages the implementation of active learning, however funding is needed to purchase licenses for digital platforms for active learning. The results showed that the teacher's preparation that is a very important factor for the successful implementation of active learning.

In summary, it can be concluded that active learning should not be viewed as a set of methodologies or a short-term innovation, but as a strategic direction for the development of modern education, which is compatible with national priorities and global educational trends. The Bulgarian system already has proven experience, successful practices and normative prerequisites that create real conditions for its establishment as a sustainable educational philosophy. To achieve this, coordination between policy, practice, scientific support and pedagogical culture is necessary, all efforts that would allow active learning to transform from a desirable but fragmented practice into a defining principle of education.

Acknowledgements

This publication has been funded by the National Scientific Programme "Development of Research and Innovation in the Field of Bulgarian Pre-school and School Education." The author bears full responsibility for the content of this document, which under no circumstances can be considered an official position of the Institute of Education.

References

Bonwell, C. C., & Eison, J. A. (1991). *Active learning: Creating excitement in the classroom*. George Washington University.

Das, S., Das, A., Rai, P., & Kumar, N. (2021). Case-based learning: Modern teaching tool meant for present curriculum. *Journal of Education and Health Promotion, 10*(1), 372. https://doi.org/10.4103/jehp.jehp_1265_20

Johnson, D. W., Johnson, R. T., & Smith, K. A. (2013). Cooperative learning: Improving university instruction by basing practice on validated theory. *Journal on Excellence in University Teaching, 25*(3–4), 85–118.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice-Hall.

Pedaste, M., Mäeots, M., Siiman, L. A., de Jong, T., Van Riesen, S. A., Kamp, E. T., Manoli, C. C., Zacharia, Z. C., & Tsourlidaki, E. (2015). Phases of inquiry-based learning: Definitions and the inquiry cycle. *Educational Research Review, 14*, 47–61. https://doi.org/10.1016/j.edurev.2015.02.003

Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education, 93*(3), 223–231. https://doi.org/10.1002/j.2168-9830.2004.tb00809.x

Radev, P. (2014). *Obshta didaktika* [General didactics] (in Bulgarian). FastPrintBooks.

Savery, J. R. (2006). Overview of problem-based learning: Definitions and distinctions. *Interdisciplinary Journal of Problem-Based Learning, 1*(1), 9–20. https://doi.org/10.7771/1541-5015.1002

Schaffar, B., & Wolff, L. A. (2024). Phenomenon-based learning in Finland: A critical overview of its historical and philosophical roots. *Cogent Education, 11*(1).

Thomas, J. W. (2000). *A review of research on project-based learning*. Autodesk Foundation.

Yustina, Y., Nasmunarti, H., & Noviq, N. (2024). Active learning model in contemporary education. *Journal of Education Research*.

Contact email: vaniasivakova@uni-plovdiv.bg