INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE IN ENGLISH LANGUAGE EDUCATION

PUBLISHED DATE: - 10-12-205

PAGES: - 27-28

CONFERENCE ARTICLE

METHODOLOGICAL FOUNDATIONS FOR DEVELOPING UNIVERSAL LEARNING ACTIVITIES BASED ON ELECTRONIC INFORMATION AND EDUCATIONAL RESOURCES

Nishonova Muattar Alisherovna
Basical doctoral student at Andijan state pedagogic institute, Uzbekistan

ABSTRACT

The article highlights how electronic educational resources (EER) support the development of universal learning activities and enhance students' independent thinking and competencies.

Keywords: Electronic educational resources (EER); universal learning activities (ULA); digital learning environment; educational competencies; interactive learning; personalized learning; metacognitive reflection.

INTRODUCTION

Today, electronic information and educational resources (EIER) have become an integral and strategic component of the learning process. From the perspective of digital pedagogy, EIER are not merely tools for delivering educational content, but a powerful pedagogical mechanism that develops learners' independent thinking, analytical approach, problem-solving skills, reflection, and universal competences. This is especially important for prospective teachers of informatics: scientifically grounded, integrated and purposeful use of EIER is a key factor in forming universal learning activities (ULA). This is because the nature of informatics as a field is inherently based on the digital environment, algorithmic thinking, interactivity and practical activity.

The electronic resources used in the educational process must fulfill a didactic function and be able to present learning material in a consistent, comprehensible and motivating form. Random resources that lack a methodological foundation can lead to the fragmentation of knowledge, a decline in learners' attention, and reduced motivation. Therefore, EIER must be consciously integrated into the structural framework of ULA. Such integration is methodologically aligned with L. S. Vygotsky's [1] socio-cultural approach, J. Piaget's [2] constructivist theory, A. N. Leontiev's [3] activity-based model, and A. G. Asmolov's [4][5] conception of universal learning activity.

One of the main advantages of effective use of EIER is the expansion of opportunities for personalized learning. Students select material in accordance with their level of knowledge, state of preparedness, learning pace and motivation, and thus the principle of differentiated learning is implemented in real educational practice. This approach is particularly relevant in the training of informatics teachers, since in their professional activity future specialists will also need to organize individualized learning.

EIER support the constructivist approach. According to this theory, knowledge is not given in a ready-made form, but is formed through the learner's active inquiry, experience and reflective analysis. This process is in harmony with Vygotsky's [1] concept of the "zone of proximal development," which encourages the formation of knowledge through the learner's active intellectual actions. With the help of electronic resources, the student is transformed from a passive listener into an active subject of cognition; they independently construct knowledge in the process of completing tasks, modelling, analyzing and solving problems.

Another important aspect of EIER is the development of learners' critical thinking and metacognitive reflection. Skills such as understanding one's own learning strategy, analyzing mistakes, and evaluating one's own activity are extremely important for digital education. Modern electronic platforms (Moodle, Google Forms, Quizlet, LearningApps) make it possible to monitor the learning process in real time, record and analyze results, and create tools for reflection. This consistently develops all components of the student's ULA—knowledge, skills, attitudes and reflection.

In this section, a methodological approach and step-by-step algorithm for developing ULA on the basis of EIER are presented. Since the nature of informatics as a subject is grounded in principles such as organizing processes in sequence, modelling, algorithmic thinking and observing results, a phased methodological algorithm is the most appropriate approach for this discipline. This algorithm includes the following stages: preparing the educational platform; creating the learning content; introducing interactive tools; engaging students in active participation; monitoring and analyzing results; and final reflection and self-assessment.

EIER should be interpreted as the central element of the didactic model. If electronic resources are pedagogically integrated in a goal-oriented way, they effectively contribute to the formation of students' competences. In organizing education on the basis of ULA, the following methodological principles are applied:

1. Competence orientation – EIER must include practical, functional and integrative components.
2. Constructivist approach – knowledge is formed through the learner's active participation.
3. Differentiated approach – instruction is adapted to the needs of each student.
4. Metacognitive reflection – the learner consciously manages their own learning process.

Taken together, these principles contribute to shaping future

informatics teachers as competent, innovative thinkers capable of self-development. A. G. Asmolov's [4][5] conception of universal learning activity strengthens the theoretical and methodological foundation of this process.

CONCLUSION

The use of EIER is one of the most effective ways to develop universal learning activity (ULA), fostering independent thinking, analysis, reflection and competences in learners. Harmonized with constructivist and activity-based approaches, EIER provide personalized learning and create a basis for the development of informatics students in line with the demands of digital pedagogy.

REFERENCES

1. Выготский Л. С. Мышление и речь. – Москва: Лабиринт, 2000.
2. Пиаже Ж. Психология интеллекта. – Москва: Педагогика, 1981.
3. Леонтьев А. Н. Деятельность. Сознание. Личность. – Москва: Наука, 1977.
4. Асмолов А. Г. Психология личности. – Москва: Смысл, 2010.
5. Асмолов А. Г. Как проектировать универсальные учебные действия. – Москва: Просвещение, 2011.