Мелітопольського державного педагогічного університету. Серія: Педагогіка. 2017. №2. С. 149–154.
10. Шарова Т., Землянський А. Освіта в інформаційному просторі: цифрове суспільство. *Наука і техніка сьогодні*. 2023. № 14(28). С. 480–492.
11. Шарова Т. М. Навчальний процес релокованого закладу вищої освіти в умовах воєнного стану. *Удосконалення освітньо-виховного процесу в закладі вищої освіти:* збірник науково-методичних праць ТДАТУ. 2023. Вип. 26. С. 288–296.
12. Шарова Т. М., Землянська А. В. Використання Освітнього порталу в дистанційному навчанні: недоліки й переваги. *Удосконалення освітньо-виховного процесу в закладі вищої освіти:* збірник науково-методичних праць ТДАТУ. 2023. Вип. 26. С. 297–303.

Zemlianska A.V.
Candidate of Philological Sciences, Associate Professor
Dmytro Motornyi Tavria State Agrotechnological University

DIDACTIC POTENTIAL OF THE MAIN STORY SCHEMES OF EDUCATIONAL QUESTS IN HIGHER SCHOOL

Abstract. *The article examines the main types of plot schemes of educational quests. There are highlighted characteristics that give advantages to quests as educational technologies in achieving pedagogical goals. It is emphasized that the use of quest technologies is popularized in the conditions of digitalization and gamification of the educational process. The didactic potential of each plot scheme is determined in accordance with the educational needs of the teacher and the level of training of higher school students. The conclusion is made about the change in the teacher's role in the educational process today.*

Key words: *quest, gamification, plot scheme, educational goal, microlearning.*

Землянська А.В. Дидактичний потенціал основних сюжетних схем освітніх квестів у вищій школі. *У статті розглядаються основні типи сюжетних схем освітніх квестів. Висвітлено характеристики, які надають переваги квестам як освітнім технологіям у досягненні педагогічних цілей. Наголошено, що використання квест-технологій популяризується в умовах диджиталізації та гейміфікації освітнього процесу. Визначено дидактичний потенціал кожної сюжетної схеми відповідно до освітніх потреб викладача*

та рівня підготовки студентів вищої школи. Зроблено висновок про зміну ролі викладача в освітньому процесі сьогодення.

Ключові слова: *квест, гейміфікація, сюжетна схема, освітня мета, мікронавчання.*

The modern educational process is in an active state of transformation, caused by the development of digital technologies and changing approaches to learning. One of the promising tools for increasing the effectiveness of educational activities is the use of educational quests, which combine elements of the game, research, and learning.

The relevance of the study of educational quests is determined by the need to implement innovative methods that contribute to the activation of the cognitive activity of students. Scientists have long advocated for an interactive approach, using visualization and gamification, even in higher education, to increase interest in the subject itself and to develop cognitive and creative abilities [3; 4; 5; 10; 11 et al.]. The emphasis in studies of this direction is on the possibilities of using Internet resources: online platforms and social networks, artificial intelligence [1; 6; 9; 12; 13 et al.]. In the context of the digitalization of education and the spread of gamification, educational quests serve as an effective means of developing key competencies, especially since they offer both offline and online formats.

The article aims to analyze the main plot schemes of educational quests and determine their didactic potential in higher education.

The concept of «educational quest» in pedagogical literature is interpreted as an interactive form of learning that involves the performance of a sequence of tasks united by a common plot and aimed at achieving an educational goal [2]. In modern war conditions, taking into account the trauma-informed approach, this form of work has acquired special importance. After all, clear, understandable instructions, step-by-step implementation of specific tasks of the goal (microlearning) expand the opportunities of each participant in the educational process to realize their abilities and achieve a global educational goal.

Historically, quest technologies originated from computer games of the quest genre, and later transformed into an educational tool. They have become particularly widespread with the development of Internet technologies and distance learning.

Quest is an effective form of gamification for learning implementation, as it includes such elements as plot, interactivity, competition, and a reward system [2].

Regarding the psychological and pedagogical basis, the use of quests is characterized by an activity approach, motivation theory, and constructivist approaches to learning. Quests contribute to the active acquisition of knowledge through experience, cooperation, and research. Moreover, as an interactive

educational form, the quest is multifunctional, allowing to achieve simultaneously educational, developmental, and educational goals [7, p. 207].

Thus, as an educational technology, the quest has some advantages:

- students do not simply absorb information, but actively search, analyze, and apply it to solve problems;
- learning takes place in an exciting form, where the game component hides didactic goals;
- quests are often conducted in teams, which contributes to the development of communication skills and socialization;
- the quest has a plot, rules, time frame, and a clearly defined goal that needs to be achieved;
- tasks can be intellectual, creative, practical, and may also require searching for information in various sources, including online resources.

During war, a quest can be a physical game in an open space (taking into account safety), an online quest (one that does not require physical movement), or an intellectual and entertaining game (such as a quest room) that allows you to get distracted and spend time with the team. The key is the safety of the participants and the adaptation of the format to the conditions of war. The plot is the central component of an educational quest. It provides logical integrity and motivation for the participants. It is the plot that turns the educational activity into an exciting process, performing several functions simultaneously: motivational, organizational, and integrative.

Among the main components of the plot, the following can be distinguished:

- exposition (introduction to the situation);
- premise (problem statement);
- development of the action (task performance);
- climax (key test);
- resolution (summary and evaluation).

The most important requirement for all types of quests in terms of plot organization is compliance with the educational goal. In addition, educational quests must be logical and consistent, appropriate for the age audience, interactive, and variable.

The main plot schemes of educational quests are the following:

1. *Linear scheme* – sequential execution of tasks in a certain order. It is the simplest to implement and is suitable for the initial stages of learning, contributing to the formation of basic knowledge. It is impossible to calculate a complex formula without first determining the input variables, so the linear scheme allows the teacher to build a clear learning trajectory.

In higher education, this scheme can be used in several cases. For example, when the quest should simulate a real workflow with a certain algorithm of actions. The linear scheme is also ideal for disciplines where it is important to see the connection between events (history, law, forensics, strategic management). Then the applicants have to unravel the «case», where each clue found leads to the next piece of evidence.

Such a scheme is ideal for small group work and distance learning, where each student moves at their own pace.

2. Branched (non-linear) scheme – the ability to choose different ways to complete the quest. Provides individualization of learning and development of independence. This type of quests contributes to the development of independence and decision-making.

The nonlinear scheme of constructing quests opens up numerous opportunities for the teacher. For example, when working with economic specialties students (managers, logisticians, economists, et al.), it teaches them to set priorities. Applicants must analyze all options, including the complexity of the tasks and their weight in points, and determine for themselves the order of their completion. For philologists or lawyers, case studies with information collection can be offered. Students must study the materials, research testimonies or historical, biographical sources, check evidence, etc. In addition, the nonlinear scheme is ideal for team competitions, where time is limited, and there are more tasks than the team can physically manage to complete. Students should self-organize by choosing a leader and delegating certain tasks to individual members.

In creating such quests with nonlinear scenarios, O. Rudinska and O. Kolesnikov propose using AI. In their opinion, it will help to organize a quest in which the same room, depending on the players' decisions, will have many options for events' development. Thus, the quest room will remain an attractive object for repeated passage through the educational game. The researchers argue that «thanks to intellectual analysis, it is possible to integrate elements of plot improvisation: the system forms an individual narrative for each team, creating a unique experience that is difficult to repeat twice» (translation is ours. – *A.Z.*) [8, p. 598].

3. *Circular (cyclic) scheme* is a structure where all teams go through the same stages (locations), but in a different sequence, eventually returning to the starting point or finishing at the last free stage. In higher education, it is advisable to use it when it is necessary to check the mastery of various tools or methods within the same discipline. If such a quest is used as a form of final control (credit or examination), then instead of classic tickets, students can be offered «stations» with practical cases. This will allow comprehensive checking of knowledge in a short time. The circular scheme can also be appropriate in interdisciplinary classes, in which each mission contains tasks from a different discipline. In the career guidance

and adaptation work of an educational institution, a cyclic quest structure helps applicants and first-year students to become acquainted with the university's structural divisions and other locations more quickly.

However, when developing such a quest, the fact is that in a circular scheme, the tasks at the stations should be autonomous. The student should not need the knowledge obtained at station №2 to solve the task at station №3, since he (she) can start his (her) journey from the third location.

4. A mission or level («hierarchical») scheme is a structure where students must complete a certain number of tasks (mission) to gain access to the next, more complex level. In higher education, this model is one of the most powerful for long-term learning because it combines elements of linearity and freedom of choice.

For example, you can turn an entire semester course into a kind of quest, where each content module will act as a separate mission. Something like the «restriction» function in the Moodle system, which does not allow you to move on to studying the next topic without mastering and completing tasks from the previous one. In this way, students' motivation for learning is maintained, and a clear understanding of their progress is formed.

The level scheme is also appropriate for differentiating learning when students with different levels of training are gathered in a group. Then each level of the mission will become more complicated, starting from basic knowledge and up to creative or scientific projects.

It is appropriate to use this scheme for complex professional competencies formation when professional skills involve a gradual increase in complex manipulations. For example, in engineering education, first the students are introduced to protocols, then they work with virtual models, and only then do they solve a real technical case.

5. *A detective (problem-search) scheme* is an intellectual quest built around one central riddle (case), which must be solved by collecting and analyzing disparate evidence. Unlike linear or circular schemes, the emphasis here is not on the speed of passing points, but on the quality of deduction and critical analysis.

In higher education, this format is one of the most difficult, but also the most effective for professional thinking development. For example, it is an ideal format for an elective course or interdisciplinary module. To solve the problem, the student will need the entire set of knowledge acquired from mandatory or related disciplines. Thus, students of the specialty «Finance, Banking, Insurance and Stock Market» can be offered an «investigation» of the causes of a real enterprise's bankruptcy based on its financial reports, meeting minutes, and market conditions.

Detective quests can also be used to develop critical thinking and data verification skills by providing irrelevant or false information in the puzzle. This teaches students to distinguish facts from manipulations, check sources, and find

contradictions in the evidence (data). This approach is appropriate in the training of historians, lawyers, journalists, analysts, philologists, etc.

In medicine, IT, and engineering, a detective scheme can simulate troubleshooting or diagnosis. A vivid example of this approach is the training of interns in the TV series «House, M.D.». Students receive a set of «symptoms» (errors in the code, sensor readings, patient tests) to conduct an «investigation» to find the root cause of the problem, rather than simply eliminating the consequences.

After all, the detective scheme allows you to prepare applicants for work in conditions of uncertainty, when the final result is unknown in advance, and there may be several correct answers, provided that the argumentation is provided. Then the teacher evaluates not only the «answer», but the logical chain that led to it. This approach eliminates the fear of error and stimulates scientific research.

6. *Narrative-role scheme* is the highest level of gamification, where the educational process is immersed in a detailed plot (narrative), and each student or microgroup receives a specific role with its own goals, resources, and limitations. Storytelling, as methodologists say, is currently a powerful tool for learning and transmitting information in various contexts [3; 11]. This approach to learning enhances emotional engagement and communication, so it is best used in specialists' training when their professions are associated with psychological pressure, working with people, the need to prove their point of view, etc. (lawyers, managers, teachers, et al.). For example, you can organize a quest simulation of a court session, where students will play the roles of judges, prosecutors, lawyers, witnesses, and jurors, demonstrating negotiation, conflict management, or ethics skills.

The role-playing quest format is also appropriate in medicine, psychology, sociology, or public administration, where decisions are rarely unambiguously «correct». The role allows students to «try on» the responsibility of another person (for example, a patient or an official solving urgent community issues) and understand the motivations of the parties. Or students of different specialties can jointly learn to interact between departments under conditions of artificial stress set by the narrative (technological disasters, information attacks, violations of international relations, etc.).

Each of these plot schemes requires careful preparation of the teacher: developing an educational strategy, formulating the narrative, selecting and technically designing tasks, conducting a briefing, etc. But first of all, the choice of a specific type of quest depends on a clear definition of the educational goal, the achievement of which it will contribute.

Conclusions. Summarizing the didactic value of quest technologies in higher education, it can be argued that their implementation marks a transition from passive consumption of information to active construction of knowledge. Each quest scheme is a specific didactic tool that solves specific pedagogical tasks. The quest changes

the student's position from an «object of learning» to an «agent of action». The teacher ceases to be a relayer of knowledge, turning into an architect of the educational environment, a tutor, and a facilitator.

References

1. Веретюк Т. Дидактичний потенціал соціальних мереж при вивченні української мови як іноземної**.** *XXV International scientific and practical conference «Current Trends in the Development of Scientific Research in Today's Conditions»* (May 29-31, 2024) Florence, Italy. International Scientific Unity, 2024. С. 169–171.
2. Гриневич М. С. Медіаосвітні квести. *Вища освіта України*. 2009. № 3. С. 153–155.
3. Даниліна О. Гра у навчанні: з досвіду практичного застосування у вивченні мови. Частина 2. *Lord of Boards*: сайт. URL: https://lordofboards.com.ua/hra-u-navchanni-z-dosvidu-praktychnoho-zastosuvannia-u-vyvchenni-movy-chastyna-2/.
4. Даниліна О., Козумляк В. Гейміфікація навчального процесу та створення інтелектуального дозвілля дітей. *Наукові праці Міжрегіональної Академії управління персоналом*. Психологія. 2025. № 3(68). С. 16–21.
5. Деркачова О. Дидактичний комікс: інноваційний підхід у підготовці майбутніх вчителів. Українські студії в європейському контексті: зб. наук. пр. 2024. № 9. С. 110–117.
6. Землянська А. В. Можливості використання соцмереж у формуванні комунікативної компетенції. *Удосконалення освітньо-виховного процесу в закладі вищої освіти*: збірник науково-методичних праць. 2025. Вип. 28. С. 116–122.
7. Пацюкевич І. В., Полюхович Н. В. Підходи до застосування квест-технологій як засобу формування технологічної компетентності школярів. *Українські студії в європейському контексті*. 2022. № 5. С. 205–209.
8. Рудінська О. В., Колесніков О. О. Менеджмент технологічних інновацій у квест-кімнатах. *Сталий розвиток економіки*. 2025. № 5(56). С. 595–602.
9. Скасків Г. М. Впровадження технологій гейміфікації в освітній процес ЗВО. *Науковий часопис Національного педагогічного університету імені М.П. Драгоманова*. Серія 5 : Педагогічні науки : реалії та перспективи : зб. наук. праць. 2021. Вип. 83. С. 156–161.
10. Derkachova O., Ushnevych, S. Use of interactive digital posters as an innovative learning technology in Ukrainian higher education (on the example of the course «Children's literature and methods of teaching literary reading»). *Journal of Vasyl Stefanyk Precarpathian National University*. 2022. Vol. 9(1). Pp. 101–111.

11. Modern technologies of teaching philological disciplines in higher education institutions / Sharova T., Zotova V., Kopeitseva L., Zemlianska A. *Педагогічні науки: теорія, історія, інноваційні технології*. 2020. № 1(95). С. 323–334.
12. Strategy for implementing immersive technologies in the professional training process of future designers / Chemerys H., Vynogradova A., Briantseva H., Sharov S. *Journal of Physics: Conference Series*. 2021. Pp. 1933.
13. Using online courses at an agrotechnological university / Sharov S., Yekimov S., Sharova T., Derkachova O., Kolomoiets H. *E3S Web of Conferences*. 2023. Vol. 452. Pp. 07015.