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DESIGNING PERSONALISED LEARNING PATHS IN A MEDIA COMMUNICATION CONTEXT

CONCEPÇÃO DE PERCURSOS DE APRENDIZAGEM PERSONALIZADOS NUM CONTEXTO DE COMUNICAÇÃO MEDIÁTICA

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ABSTRACT

Meeting the educational needs of higher education students and the challenges of informatisation and digitalisation of society contribute to the development of individual learning trajectories. The article examines the formation and development of these trajectories for higher education applicants for the third (educational and scientific) level of higher education (field of knowledge 01 "Education / Pedagogy", specialty 011 "Educational, pedagogical sciences") with the help of media and communication tools. The study aims to compare the effectiveness of learning with the help of traditional and innovative media and communication tools for forming individual learning trajectories. The methods of the study were: a questionnaire to determine the criteria for assessing the formation of individual learning trajectories in the media communication environment, a questionnaire to determine the level of use of media communication environment tools for the formation of the outlined educational trajectories, comparison and statistical evaluation of the results. The technology of forming individual learning trajectories in the media communication environment is outlined. The traditional means used by teachers for higher education students of the control group and the innovative means used by the experimental group are presented to implement the experiment. It is determined that introducing innovative means of media and communication increases the formation of individual learning trajectories and digital literacy. In the statistical calculation of the data obtained during the pedagogical experiment, the effectiveness of the use of innovative media and communication environment tools for forming personalised learning paths and providing quality education has been identified.

Keywords: individual learning trajectories, media communication environment, personalisation of learning, higher education students, innovative teaching tools.

RESUMO

A satisfação das necessidades educativas dos estudantes do ensino superior e os desafios da informatização e digitalização da sociedade contribuem para o desenvolvimento de trajectórias individuais de aprendizagem. O artigo analisa a formação e o desenvolvimento destas trajectórias para os candidatos ao terceiro nível (educativo e científico) do ensino superior (área de conhecimento 01 "Educação/Pedagogia", especialidade 011 "Ciências da educação e da pedagogia") com a ajuda dos meios de comunicação e das ferramentas de comunicação. O estudo tem como objetivo comparar a eficácia da aprendizagem com a ajuda de meios tradicionais e inovadores e de ferramentas de comunicação para a formação de trajectórias de aprendizagem individuais. Os métodos do estudo foram: um questionário para determinar os critérios de avaliação da formação de trajectórias individuais de aprendizagem no ambiente de comunicação dos meios de comunicação, um questionário para determinar o nível de utilização das ferramentas do ambiente de comunicação dos meios de comunicação para a formação das trajectórias educativas delineadas, comparação e avaliação estatística dos resultados. A tecnologia de formação de trajectórias individuais de aprendizagem no ambiente de comunicação dos meios de comunicação é delineada. São apresentados os meios tradicionais utilizados pelos professores para os estudantes do ensino superior do grupo de controlo e os meios inovadores utilizados pelo grupo experimental para implementar a experiência. Determinou-se que a introdução de meios inovadores de media e comunicação aumenta a formação de trajectórias de aprendizagem individuais e a literacia digital. No cálculo estatístico dos dados obtidos durante a experiência pedagógica, foi identificada a eficácia da utilização de ferramentas inovadoras dos meios de comunicação e do ambiente de comunicação na formação de trajectórias de aprendizagem personalizadas e na oferta de um ensino de qualidade.

Palavras-chave: trajectórias individuais de aprendizagem, ambiente de comunicação mediática, personalização da aprendizagem, estudantes do ensino superior, ferramentas pedagógicas inovadoras.

Introduction

The digitalisation of the educational process and the introduction of media and communication technologies are prerequisites for the development of the modern educational process. The learning environment of higher education institutions should be adapted to student's individual needs, considering their interests and the need to develop their strengths and fill in knowledge gaps. It is also necessary to consider the large amount of information that students encounter during the formation of the educational process and the need to create individual study schedules. The task of teachers is to create and develop content in the media and communication environment and provide recommendations and support for individual learning paths to create highly qualified professionals capable of meeting the challenges of our time.

The development of cloud technologies, digitalisation of learning and the introduction of artificial intelligence methods contribute not only to the development of high-quality educational content but also to the formation of motivation to study disciplines and the development of critical thinking skills. However, despite several advantages of using the media and communication environment, it is necessary to consider the need to increase the level of digitalisation of training higher education students and teachers, technological complexities and digital literacy, and the need for professional support and development. Therefore, considering the educational, technological, methodological and moral aspects of learning in the media and communication environment contributes to the harmonisation of learning and requires developing and implementing innovative teaching methods to form individual educational strategies.

The study is devoted to developing and implementing individual learning trajectories in the media communication environment of higher education institutions.

Literature review

Using media and communication learning technologies effectively form personalised education trajectories in the context of modern challenges (Almalky & Alwahbi, 2023); Diaz et al., 2020). During the implementation of these professional training pathways, adaptation to the needs of each higher education student takes place, depending on the basic training (Smit et al., 2024), educational preferences (Post et al., 2019) and the level of acquired competences (Oliynik et al., 2018). Learning in a media and communication environment allows not only to provide educational content (Batsurovska et al., 2024) but also to track progress (Castaño-Muñoz & Rodrigues, 2021), to highlight aspects that need correction and more attention from the teacher (Manca, 2020).

Interactivity, project orientation, and visualisation are the main characteristics of the media and communication environment (Dotsenko, 2023). Cognitive models for building personalised learning paths are based on analysing learning outcomes and data for each higher education student (Li et al., 2021). The project model prefers the independent acquisition of competences and the independent definition of goals by higher education students within the speciality educational programme (Muschkin et al., 2024). In modern conditions, digital tools are rapidly implemented in the media and communication environment, including data analysis systems and educational content design based on artificial intelligence (Mujtaba et al., 2024). Attention should also be paid to such important aspects of forming the media and communication environment as developing digital literacy, providing clear recommendations from teachers, and designing tasks to develop critical thinking (Weiland et al., 2024).

The use of information technology in creating an educational platform is investigated, and the need to use digital marketing to promote innovative educational products among customers is established. It is substantiated that using machine learning algorithms and server technologies allows for optimising education processes in modern conditions (Pavlenko et al., 2023). Active learning involves numerous developmental processes, such as cognition, behaviour,

emotions, and environmental interaction. This requires the creation of a learning environment suitable for the active learning of students and the necessary conditions of support through information technology influenced by the outside world and culture. The article develops and analyses the current learning environment and gives some countermeasures and suggestions to effectively motivate students to engage in active learning through information technology (Liu, 2023). Students learning performance and programming skills based on learning in a media-communication environment have been investigated (Daungcharone et al., 2020). The technology-enhanced approach to collaborative learning refers to how information and communication technologies can support learning in groups of students (Ruan & Ding, 2021). This learning strategy can address students' concerns about alienation in academic settings; however, its effectiveness depends on various variables, such as grouping strategies (Esfijani & Sadeghi, 2024). The results show that the networked classroom model performs well in predicting students' mastery of knowledge concepts and providing learning strategies (Tian et al., 2021).

Equipping mathematics learning systems with individual learning strategies is key in providing personalised learning services. The development of intelligent educational technologies opens up a significant prospect for the practice of a personalised learning model. Cloud-based education systems have already provided a platform for scalable personalised services (Yu et al., 2022). The study aims to identify the opportunities and challenges associated with using information and communication technologies for educational purposes and promoting environmentally responsible behaviour. It provides several recommendations for optimising the use of digital technologies for educational purposes and promoting activities (Di Chiacchio et al., 2023).

The authors (Tamozhska et al., 2024) outline a competency-based model of the educational paradigm and determine its impact on the adaptation of higher education students to the requirements of modern society and the formation of key competencies, paying special attention to the use of an interdisciplinary approach. Kryshtanovych et al. (2024) in their work pay attention to the study of the main features and challenges facing the higher education system of Ukraine and

determine the need to form a sustainable and innovative educational environment. Piddubna et al. (2022) analyze the features of pedagogical work in rural regions and outline methods that contribute to the integration of the local community into the educational process. The authors Tamozhska et al. (2023) in their study paid attention to the activities of higher education institutions and the professional development of teachers, namely, they outline the key competencies that are necessary to effectively support different categories of students and ensure the accessibility and quality of education.

It is necessary to consider technological and pedagogical features to effectively form individual learning trajectories in the media and communication environment.

Applied methods

The study of the effectiveness of forming individual learning trajectories in the media and communication environment involved questionnaires, pedagogical experiments, and statistical evaluation of the selected methods of forming individual learning trajectories. The pedagogical experiment consisted of four stages: preparatory, formative, stating and control. During the preparatory stage, 34 teachers of higher education institutions were surveyed: Kherson State Maritime Academy, V.N. Karazin Kharkiv National University, who participated in the experiment, the criteria and levels of formation of individual learning trajectories in the media and communication environment were determined (Appendix 1).

The pedagogical technology for forming individual learning trajectories was implemented during the formative stage. The teachers participating were divided into control and experimental groups during the ascertaining stage. The control group used traditional means of forming individual learning trajectories in the media communication environment; the experimental group used innovative means of forming these trajectories. A questionnaire was conducted (Appendix 2), which was developed based on the selected criteria, to identify the most effective learning trajectories using the means of the media and communication environment. The

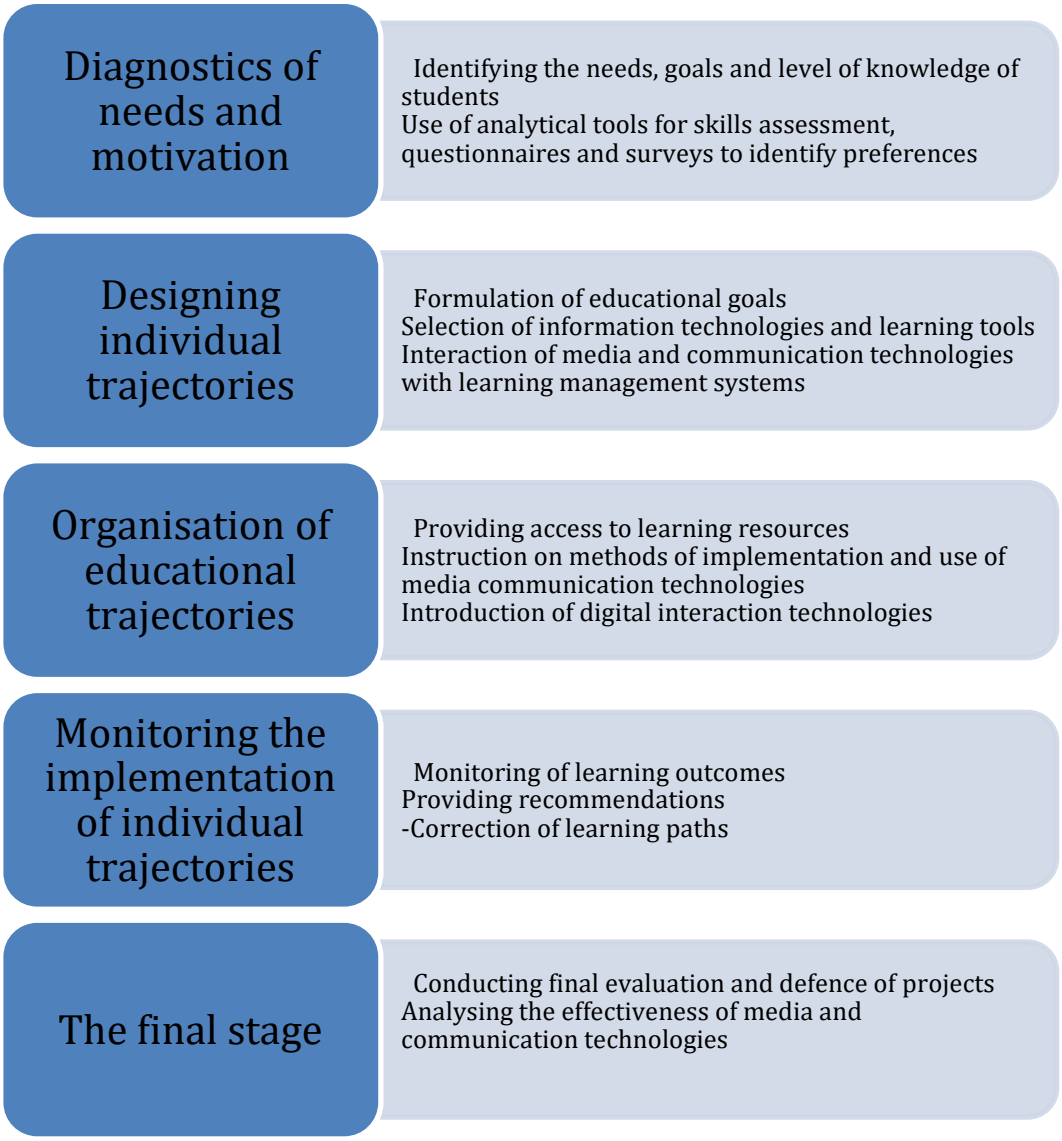
control stage was devoted to comparing and statistically evaluating the formation of individual learning trajectories for higher education applicants for the third (educational and scientific) level of higher education (field of knowledge 01 "Education / Pedagogy", specialty 011 "Educational, pedagogical sciences") in the conditions of the outlined educational environment.

Results

The development of information and communication technologies and the introduction of digitalisation principles contribute to forming individual learning paths in a media and communication environment that focuses on higher education students' needs, preferences and skills. The main characteristics of the outlined learning technology are flexibility, individualisation and interactivity.

Individualised study plans for higher education students are formed by considering their abilities, professional needs, and preferences. Figure 1 shows the formation sequence of individual learning paths for higher education applicants for the third (educational and scientific) level of higher education (field of knowledge 01 "Education / Pedagogy", specialty 011 "Educational, pedagogical sciences") in the media and communication environment.

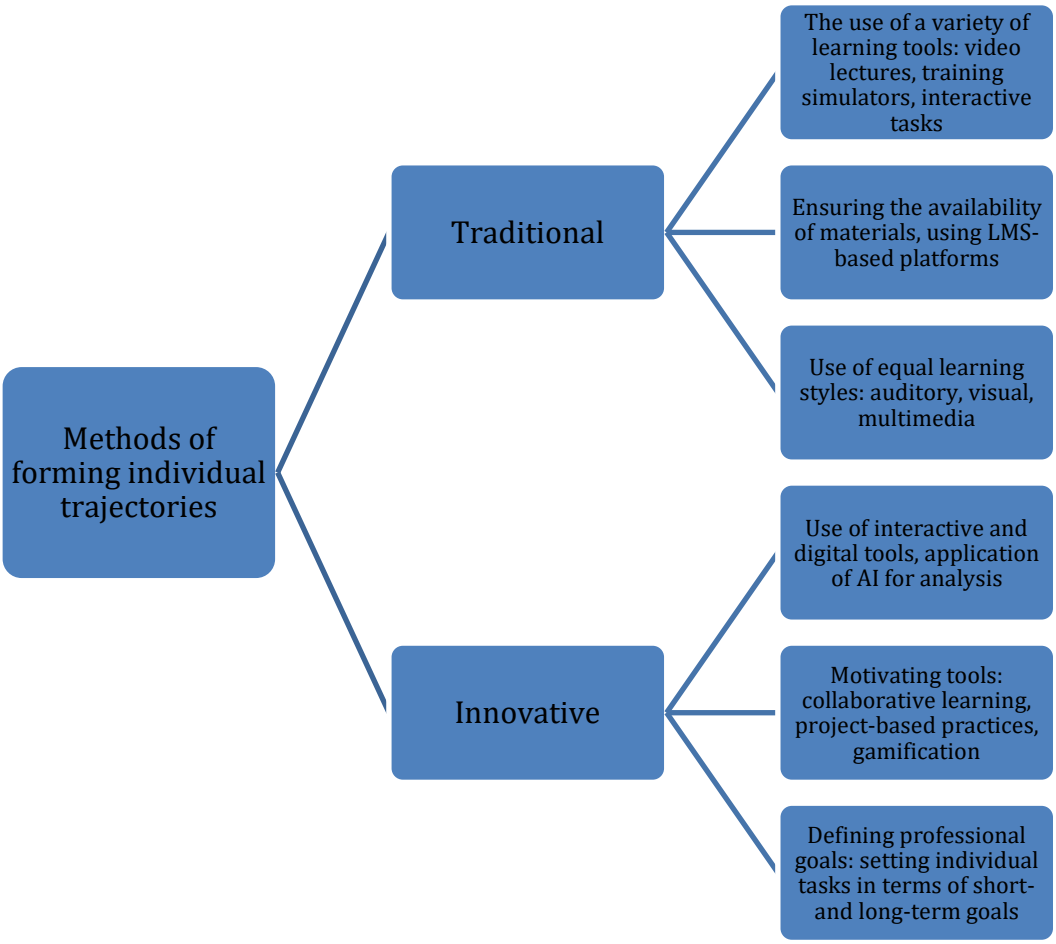
Figure 1 – The sequence of formation of individual learning trajectories for higher education applicants for the third (educational and scientific) level of higher education (field of knowledge 01 "Education / Pedagogy", specialty 011 "Educational, pedagogical sciences") in the media and communication environment



Source: compiled by the author.

During the formative stage of the pedagogical experiment, innovative and traditional methods for forming individual trajectories in the media communication environment are presented (Figure 2). These methods were used during the experimental work for the experimental and control groups of participants.

Figure 2 – Traditional and innovative methods for the formation of individual learning trajectories in media communication



Source: developed by the author.

To assess the formation of individual learning trajectories, the criteria and levels of formation of individual learning trajectories for higher education applicants for the third (educational and scientific) level of higher education (field of knowledge 01 "Education / Pedagogy", specialty 011 "Educational, pedagogical sciences") in the media and communication environment are applied, which are described in detail in Table 1.

Table 1 – Criteria and levels of formation of individual learning trajectories for higher education applicants for the third (educational and scientific) level of higher education (field of knowledge 01 "Education / Pedagogy", specialty 011 "Educational, pedagogical sciences") in the media and communication

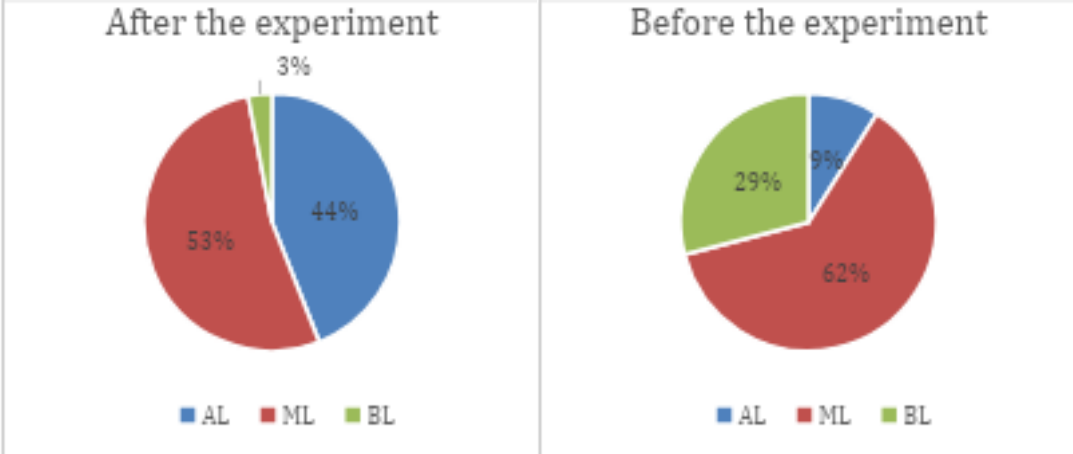
Criterion	Level	The main characteristics of the level
Personalised learning objectives (C1)	Basic (BL)	Beginner level of motivation, working with simple concepts and basic tools of the media and communication environment
	Medium (ML)	Formulating goals in terms of professional training, working with a wide range of media and communication tools
	Advanced (AL)	Following long-term educational goals, using digital technologies for planning, tracking progress
Information, communication and digital competence (C2)	Basic (BL)	Application of simple curricula and basic skills in the media and communication environment.
	Medium (ML)	Use of interactive learning tools and analytical tools
	Advanced (AL)	Use of innovative learning tools to create personalised trajectories
Use of interactive approaches (C3)	Basic (BL)	Use of learning management systems to implement basic functions such as providing educational content and feedback to teachers
	Medium (ML)	Developing interactive and practice-oriented learning projects
	Advanced (AL)	Application of AR and VR technologies, creation of personalised learning materials
Self-regulation (C4)	Basic (BL)	Provision of instructions, media and communication materials for the formation of educational trajectories of higher education students
	Medium (ML)	Selection of educational content according to the needs and preferences of higher education students, development of self-assessment skills
	Advanced (AL)	Formation of educational content and assessment methods, taking into account the autonomy of higher education students in implementing and evaluating the educational process.

Source: developed by the author.

The next stage of the pedagogical experiment was the collection of questionnaire data and statistical evaluation of the formation of individual learning trajectories in the media and communication environment. Figure 2 shows the results of the questionnaire on the effectiveness of the media and communication environment in forming individual learning trajectories for higher education applicants for the third (educational and scientific) level of higher education (field

of knowledge 01 "Education / Pedagogy", specialty 011 "Educational, pedagogical sciences") before and after the experiment.

Figure 2 – Formation of individual learning trajectories for higher education applicants for the third (educational and scientific) level of higher education (field of knowledge 01 "Education / Pedagogy", specialty 011 "Educational, pedagogical sciences") using media and communication environment before and after the experiment



Notes: AL - advanced level, ML - medium level, BL - basic level of formation of individual learning trajectories in the media and communication environment.
Source: developed by the author.

The study's results, presented in Figure 2, show that during the implementation of the pedagogical technology proposed by the authors, the indicators of the advanced level of formation of individual learning trajectories in the media and communication environment increased by 30%, the indicators of the low level decreased by 25%, and the indicators of the medium level also slightly decreased. This indicates increased use of learning tools in the media and communication environment and the formation of digital literacy and information and communication competences.

At the last stage of the pedagogical experiment, the effectiveness of forming individual learning trajectories in the media and communication environment was statistically tested. During the survey, teachers were divided into control and experimental groups; the control group used traditional teaching aids, while the experimental group used innovative teaching aids in the media and communication environment. The Spearman's rank correlation method was used for statistical

testing to determine the correlation between two attributes. In this case, two group hierarchies of attributes were used for the control and experimental groups according to the developed criteria of the questionnaire.

Two hypotheses were accepted for the statistical calculation: H0 - the difference between the two indicators is statistically insignificant, H1 - the difference between the two indicators is statistically significant.

During statistical testing, the assessment values of the formation levels of individual learning trajectories in the media and communication environment were ranked for the control (CG) and experimental groups (EG). Each value in the sample is assigned a rank that reflects its position in the ordered list. The difference in rank D for each pair of observations is calculated, which is determined by the difference between the values for the control and experimental groups. The sum of squares d^2 was calculated. The number of experiments is n=34. The last step was to calculate the rank correlation using the formula:

$$\rho = 1 - \frac{6\sqrt{\sum\blacksquare\blacksquare d_i^2}}{n(n^1-1)} \qquad (1)$$

Critical values for n=34: : $\rho_{0.05} \geq 0.34$; $\rho_{0.01} \geq 0.44$.

Table 3 presents the critical values for the statistical calculation of the effectiveness of forming individual learning trajectories for higher education applicants for the third (educational and scientific) level of higher education (field of knowledge 01 "Education / Pedagogy", specialty 011 "Educational, pedagogical sciences") in the media communication environment.

Table 3 – Statistical calculation of the effectiveness of forming individual learning trajectories for higher education applicants for the third (educational and scientific) level of higher education (field of knowledge 01 "Education / Pedagogy", specialty 011 "Educational, pedagogical sciences") in the media communication environment

N	CG values	CG rank	EG values	EG rank	d (EG rank-CG rank)	d^2
1	4	7.5	6	3.5	4	16
2	6	21	8	13.5	7.5	56.25
3	7	28.5	8	13.5	15	225
4	3	3.5	4	1	2.5	6.25
5	4	7.5	7	7	0.5	0.25
6	6	21	9	20.5	0.5	0.25
7	8	31	10	26	5	25
8	9	33	11	31	2	4
9	2	1.5	5	2	-0.5	0.25
10	4	7.5	7	7	0.5	0.25
11	7	28.5	9	20.5	8	64
12	9	33	11	31	2	4
13	5	13	7	7	6	36
14	6	21	9	20.5	0.5	0.25
15	2	1.5	6	3.5	-2	4
16	6	21	9	20.5	0.5	0.25
17	3	3.5	8	13.5	-10	100
18	7	28.5	9	20.5	8	64
19	9	33	11	31	2	4
20	5	13	10	26	-13	169
21	4	7.5	10	26	-18.5	342.25
22	6	21	8	13.5	7.5	56.25
23	7	28.5	10	26	2.5	6.25
24	6	21	9	20.5	0.5	0.25
25	6	21	8	13.5	7.5	56.25
26	4	7.5	7	7	0.5	0.25
27	6	21	7	7	14	196
28	5	13	8	13.5	-0.5	0.25
29	6	21	11	31	-10	100
30	5	13	12	34	-21	441
31	6	21	11	31	-10	100
32	6	21	10	26	-5	25
33	4	7.5	8	13.5	-6	36
34	5	13	8	13.5	-0.5	0.25
Sums		595		595	0	2139

Notes: CG is the control group, and EG is the experimental group.
Source: developed by the author.

As a result of the statistical calculation of the effectiveness of the formation of individual learning trajectories in the media communication environment, it was determined that ρ = 2139, which is more than the critical values, and we have the right to accept the hypothesis H1-correlation between the control and experimental groups is statistically significant, and, therefore, the formation of individual learning trajectories by innovative means of the media communication environment is effective.

Discussion

Due to the COVID-19 pandemic, the prevailing trend of online education has become widespread and was almost instantly implemented worldwide. The impact of a blended learning culture on media education in the UAE is explored. A comparative study of teaching and learning during the pandemic was conducted among three universities offering media education (Mahanta et al., 2022). It was determined that technological advances in EdTech (educational technology), information and communication technologies and artificial intelligence are innovative methods in education, born of necessity, and have helped all stakeholders in online education, especially students, in more interactive and popular ways.

Changes in traditional didactic teaching-learning strategies for others, mediated by information and communication technologies, are conducive to enhancing their learning, increasing interest in the programme's content, reducing disapproval, and stimulating the teaching and learning process through gamification, learning through games, but in a formal, non-game context (Estela Morales Salas & René Rodríguez Pavón, 2021). Adaptive technologies promote flexibility in the pace and methods of education and provide a wide range of multimedia resources.

The study confirms the empirical knowledge about the interaction of social media with YouTube educational videos and extends the research on technical communication for YouTube educational videos (Shen et al., 2022). Technical

communication scholars have been paying attention to the increasing use of social media in personal, pedagogical, and professional terms. The study focuses on YouTube videos for educational purposes in different research areas.

The multifaceted impact of social media on media education has been explored to highlight its transformative impact on pedagogical approaches and people's readiness for the dynamic media industry. Many opportunities and challenges are emerging, fundamentally changing the pedagogical approaches used in media education (Raja, 2024). Collaborative learning, facilitated by platforms such as Facebook and Twitter, promotes dynamic interaction between students and fosters a sense of community. The visual nature of platforms such as Instagram and YouTube allows teachers to incorporate multimedia elements, increasing engagement and retention. Blogs and podcasts allow students to create and share content, improving their storytelling and communication skills.

The attitudes of students of the Faculty of Education in Rijeka to the use of digital media in the educational process are investigated, emphasising self-assessment of digital technologies. It is determined that students choose media based on the content of their studies and believe that their digital skills are sufficient for the quality implementation of media in education. However, digital media should be more important in the learning process, as they allow for individualised work, facilitating collaborative, game, and project-based learning (Papak & Mezak, 2021). A stimulating multimedia learning environment is important for ensuring a culture of learning. An innovative approach to the learning process involves selecting appropriate learning tools, approaches, methods and strategies, considering the defined outcomes and characteristics of individual tools in a stimulating environment.

From three aspects, the study focuses on applying artificial intelligence in developing media convergence in the context of innovative media. Among them, media content monitoring based on speech recognition technology can improve monitoring efficiency, meet the needs of media content monitoring, and create a more intelligent monitoring technology system. Interactive design based on augmented reality technology generates virtual information with the help of

computers, creates an environment where the virtual and the real are mixed, and provides people with a more complete information experience. The design of a stereoscopic display based on virtual reality technology makes the virtual environment closer to the real one by introducing various simulations so that realistic stereoscopic images can be seen (Wei & Wang, 2022).

The authors use the intelligent Internet as the technical basis and user experience as the research objects to create a design that meets the needs of personalised learning for the user (Gan & Zhang, 2020). With the development of the smart Internet, personalised learning has begun to evolve from offline to online. New technologies such as machine learning brought by the smart Internet have significantly lowered the threshold for personalised online learning, and various online education platforms have also added personalised learning elements to the services provided. However, most of the existing personalised online learning is limited to the personalisation of learning topics and lacks personalisation in learning content, learning style, and learning experience.

The role of social media platforms in facilitating collaborative learning in distance education is explored. The benefits of collaborative learning are discussed, the functions of social media platforms that support collaboration are analysed, and their impact on learning outcomes is explored. Challenges and considerations for using social media for collaboration are examined, and practical implications for educators are provided. Educators can create dynamic and interactive learning environments using social media platforms. The study contributes to developing distance education practices by enabling effective collaboration and learning in online communities (Khovrak et al., 2023). However, it should be noted that creating an effective personalised learning path requires significant resources from the teacher. Therefore, forming individual trajectories in the media communication environment requires a high methodological level of preparation and organisation of the educational process.

Conclusion

The formation of individual trajectories of the media and communication environment allows for focusing on the personal needs of higher education students, interests and preferences, and level of knowledge and to make timely adjustments to educational strategies based on the information received. The media and communication environment allows the introduction of the principles of learning flexibility, personalisation of different educational processes into the educational process, development of information and communication competence, digital literacy and providing modern learning monitoring tools. This study outlines the formation of individual learning trajectories for higher education applicants for the third (educational and scientific) level of higher education (field of knowledge 01 "Education / Pedagogy", specialty 011 "Educational, pedagogical sciences") in the media and communication environment. It presents several traditional and innovative methods for forming individual learning trajectories in the media and communication environment. The research methods used were educational process monitoring tools, questionnaires, comparison of questionnaire results and statistical calculation. The criteria and levels of formation of individual learning trajectories in the media and communication environment have been developed for evaluation. The analysis of the formation of individual learning trajectories using the media and communication environment before and after the experiment is carried out; it is determined that using innovative means of the outlined environment improves the quality of the formation of individual learning trajectories. A statistical calculation of the effectiveness of forming individual learning trajectories in the media communication environment using the Spearman criterion is carried out. The study has determined that forming individual learning trajectories for higher education applicants for the third (educational and scientific) level of higher education (field of knowledge 01 "Education / Pedagogy", specialty 011 "Educational, pedagogical sciences") with innovative means of the media and communication environment increases teaching and learning outcomes. Therefore, the prospects for further research are to formulate recommendations for using

media and communication environment technologies and to outline methodological and didactic approaches to their application.

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APPENDIX 1

Questionnaire for determining the criteria for the formation of individual learning paths in the media and communication environment

1. General data

    1.1. Please indicate your length of service.
    - Less than 2 years
    - 2-10 years
    - More than 10 years

    1.2. Assess your level of media and communications technology skills
    - Beginner
    - User
    - Advanced

2. Main part. Rate from 0 to 10 the importance of the criteria for forming individual learning paths in the media and communication environment.

2.1. Level of training and adaptability of training materials

0	1	2	3	4	5	6	7	8	9	10

2.2. Matching the learning path with the long-term prospects and interests of the students

0	1	2	3	4	5	6	7	8	9	10

2.3. Possibility of independent choice of learning format, flexibility of educational trajectory

0	1	2	3	4	5	6	7	8	9	10

2.4. Use of media and interactive content

0	1	2	3	4	5	6	7	8	9	10

2.5. Providing regular feedback

0	1	2	3	4	5	6	7	8	9	10

2.6. Availability of high-quality technical support

0	1	2	3	4	5	6	7	8	9	10

2.7. Availability of motivational factors for the implementation of individual learning paths

0	1	2	3	4	5	6	7	8	9	10

2.8. Possibility of independent planning and assessment of the progress of higher education students

0	1	2	3	4	5	6	7	8	9	10

2.9. Application of digital tools for analysing the performance of higher education students

0	1	2	3	4	5	6	7	8	9	10

2.10. Development of communication, teamwork and critical thinking skills

0	1	2	3	4	5	6	7	8	9	10

APPENDIX 2

Questionnaire for determining the level of formation of individual learning trajectories in the media communication environment

Assess the formation level of individual learning trajectories in the media communication environment from 1 to 12, where 0-4 points can be given for the first answer, 5-8 - for the second answer, and 9-12 - for the third answer.

Criterion 1: Personalised learning objectives (C1)

To what extent do you adapt curricula to the needs of students?

- I use only standard curricula
- I partially adjust the content or tasks of individual groups of students.
- I fully design individual training routes.

Criterion 2: Information, communication and digital competence (C2)

How would you rate your skills in working with media and communication platforms?

- I can only use basic functions (uploading materials, sending messages).
- I am confident in creating content and using educational programmes.
- I can develop complex multimedia courses and analyse data.

Criterion 3. Use of interactive approaches (C3)

What media and communication tools do you use?

- Presentations and text materials.
- Multimedia materials, video conferencing, and course management platforms.
- Interactive simulations, AR/VR technologies, chatbots.

Criterion 4. Self-regulation and interaction (C4)

How do you build interaction with students?

- Mostly one-way communication (lectures, assignments).
- I provide feedback and participate in discussions.
- I use interactive methods and work with students on projects.