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The influence of interactive educational space on the professional self-realisation of future art professionals

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ABSTRACT

The article aims to determine the impact of a psychologically grounded interactive educational space on the professional self-realization of future art professionals. The study used the methodology "type and level of professional self-realization," methodology for studying satisfaction, test for studying the motivation of professional activity, and methodology for self-assessment of youth career development. The sample was formed from future actors, directors, musicians, vocalists, and artists. The results indicate the effectiveness of a psychologically grounded interactive educational space for the professional realization of future specialists in the field of art. The interactive educational space that stimulates students' reflection and motivation positively impacts the type of professional self-realization, professional motivation, assessment of future careers and the formation of academic knowledge and professional skills. At the same time, in the cases of using conventional interactive educational space, there are positive changes in the cognitive-activity component and the type of professional self-realization. The results obtained can be used to optimize the use of interactive educational space in higher education institutions to train art professionals. In future research, it is advisable to conduct a differentiated study of the impact of interactive educational space on the personality of a future art specialist.

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1. INTRODUCTION

In the context of the war, the educational sector has experienced many negative impacts (material damage, migration of specialists, significant reduction in financing of the educational sector), which destabilizes the professional development of future specialists [1]. In this context, higher education requires reforms, which involve changing methodological and theoretical approaches. After the outbreak of the pandemic and military operations on the territory of Ukraine, attention to the scientific analysis of the use of

distance learning and information technology in education has increased significantly. Already at the beginning of the war, the feasibility of implementing information technologies in higher education institutions was experimentally proven [2]. The further course of events requires additional research on the technological support of the higher education system. In general, participants of the educational process have a positive attitude towards interactive educational environments, which indicates the potential pedagogical possibilities of using this tool [3]. The active use of interactive technologies considers the psychological characteristics of modern students and has a high potential compared to traditional forms of teaching [4]. Information technologies are a critical factor in improving activities in the educational process [5]. In higher education institutions, it is necessary to implement measures aimed at improving the pedagogical impact of the interactive educational space [6]. Such measures should be based on the teacher's ability to use modern educational technologies in education [7] and students' readiness to get education in new conditions [8]. It should be noted that the study of information technology and the formation of an interactive educational space for students in various fields is uneven. This issue has not been sufficiently addressed regarding future art professionals [9]. In this context, it is worth mentioning the study of the use of interactive technologies in the training of future teachers of artistic disciplines [10]; teacher training for the implementation of interactive technologies in the educational process [11]; using the gaming potential of interactive technologies in higher education [12]. We can see that the above research indirectly relates to the arts field, while the main focus is on the teaching staff.

Objectives of the study: i) to analyze the conditions for the effective use of interactive educational space in HEIs; ii) to find out the formation of professional self-realization of future art professionals; and iii) to develop and test a program for the psychological justification of an interactive educational space for the professional training of future art professionals.

2. THE ADVANCED THEORY

Educational space is characterized by a number of features: social interaction, cognitive integration, similarity to other social communities, motivation to work, focus on development, and openness [13]. The effectiveness of learning in a traditional educational space depends on social and physical factors, such as the location of desks and the room's acoustic characteristics [14]. At the same time, interactive educational spaces based on information technology have become increasingly popular in recent years. This approach is auspicious in overcoming the pandemic's negative economic consequences and can compensate for the “weaknesses” of traditional education [15].

An interactive educational space or information educational space is defined as a virtual learning environment, i.e. an open system that provides a set of interconnected and constantly updated learning tools and ensures synergy and interaction between the participants in the educational process. For designing the components of an interactive educational space, gamification (game methods), multimedia and interactive technologies for modelling and forecasting educational processes, and social networks are used [16]. The main functioning principles of the interactive educational space are sociality, accessibility, mobility, controllability, and adaptability [17].

The advantages of using the information and communication educational space in the higher education system are increased students’ immersion in the learning process, the development of cooperation between the participants in the educational process, and the creation of conditions for creativity [18]. There are several conditions for an adequate interactive educational space in higher education: stimulating students' cognitive activity, developing cooperation skills, a flexible approach to teaching and assessment of student outcomes [19]. An interactive educational space involves the combination and mutual influence of the digital, material, biological and social aspects of activities of all the participants in the educational process [20], [21]. Essential characteristics of the phenomenon under study are accessibility and equality of participants [22].

The use of information technology in the educational space has a positive impact on communication between learners in the teacher-student and student-student systems [23], [24]. Interactive technologies are a means of communication that provides students with the opportunity to receive feedback from other students on learning tasks [25]. The use of tools such as Padlet, Panopto, and Google Docs creates conditions for optimising students' behaviour, cognitive activity, and emotional attitude to the educational process [26]. Interactive technologies in higher education have a positive impact on the motivation of students and the removal of communication barriers [27].

The introduction of technology in higher education should be based on theoretical and methodological positions, technical aspects, attitudes of teachers and learners to this process, as well as the impact on academic performance and discipline [28]. The conditions for the successful implementation of technologies in higher education are effective adaptation and flexibility in the use of the latest technologies, technical competence, and ethical justification of educational informatization [29]. In this context, an

adequate interactive educational space should be based on taking into account the individual characteristics of students, which are determined through the use of surveys and observations [30]. It is advisable to stimulate motivation and develop reflection when using interactive technologies [31]. Despite a significant amount of scientific research aimed at studying the specifics of the interactive educational space, the peculiarities of its usage in the context of specific specialities have not been sufficiently clarified. Therefore, it was decided to conduct an appropriate empirical study.

3. METHOD AND MATERIALS

The experimental study was carried out in the field of natural sciences using a formative strategy. The objectivity of the scientific research is based on the analysis of the basic theoretical categories and aspects of the article's subject matter. The structure of the study is typical.

The research planning stage is the choice of the overall strategy and tactics of the research and allocation of time, material and human resources as well as coordinating the efforts with the administration of educational institutions to ensure the effective conduct of the experiment. The following components of professional self-realisation were recorded: type of professional self-realisation, level of satisfaction with the chosen profession, professional motivation, assessment of own career development, knowledge and skills in a particular field of art. The analysis of theoretical sources allowed the formulation of a research hypothesis about the positive impact of interactive educational space on the indicators of professional realisation of future art professionals, provided that students are independent in choosing the study vector, using reflective reports, and stimulating motivation. The empirical stage can be divided into several phases: primary diagnostics, formative influence, and secondary diagnostics. Thus, the classical scheme of the formative experiment was implemented. The stage of quantitative and qualitative data processing allows us to identify changes in the structural components of the professional realisation of future specialists in various fields of art due to the implementation of the experimental programme. Statistical methods were chosen following the aim and objectives of the study. The data interpretation stage involved explaining the identified quantitative trends from the perspective of the structural approach.

Several valid tests were used to determine the components of professional realisation of future art professionals, namely the methodology “type and level of professional self-realisation”; the methodology for studying satisfaction with the chosen specialty, the test for studying the motivation of professional activity; the methods for self-assessment of youth career development. The cognitive-activity component of professional realisation was determined by testing methodological and theoretical knowledge and with the help of comprehensive observations of students. Specialists in the relevant field of art carried out the development of methodological tools.

The formative experiment was based on the implementation of a psychologically grounded interactive educational space as an independent variable. Professional self-realisation was the dependent variable. The implementation of professional training using the interactive educational space was carried out from February - June 2023. The educational content was planned by the specifics of the educational and professional programmes of the first (bachelor's) level of higher education in the specialties “fine arts, decorative arts, restoration”, “musical arts” and “performing arts” of the field of knowledge “culture and arts”. The course was delivered on the Microsoft Teams and Google Meets platforms. The interactive educational space provided for the active participation of students in the educational process based on the subject-to-subject approach. In other words, the presentation of material and problem-solving took place under conditions of enhanced communication. The primary forms of activity in the interactive space were discussions, round tables, and brainstorming sessions.

The data analysis involved the use of percentage analysis to establish general trends in the manifestation of the characteristics under study. The Kolmogorov-Smirnov test was used to check whether a statistical series conforms to a normal distribution. The student's test (a parametric statistical method) allowed determining the significance of differences between two data sets. The results were quantitatively processed using SPSS software.

The sample was formed of future actors, directors, musicians, and vocalists of the Kyiv Municipal Academy of Circus and Variety Arts and future artists, specialists in the field of fine and decorative arts of Borys Grinchenko Kyiv University. The samples included students in the 1st-4th years of study, as the format of the interactive educational space involved students with different learning experiences. The experimental group consisted of 98 people and the control group of 93 people. The sample was formed by stratification methods, where the strata were different specialities. Randomisation was carried out using a random number generator. The sample was formed with a focus on compliance with operational validity, i.e. the aim and objectives of the study. The sample's quantitative and substantive characteristics ensured the study's representativeness. The main formal requirements for participating in the study were getting an education in the field of art and consent to participate in the study.

Data collection involved the implementation of primary and secondary diagnostics. The implementation of the methods was based on thorough instruction, the formation of feedback channels, and the stimulation of motivation to work. The development of methodological tools was carried out by specialists in the relevant field of art.

Ethical criteria were ensured by the consent to participate in the study. The research methods did not degrade the dignity of the participants, which was confirmed by independent expert opinions. All participants of the experiment were previously warned about the purpose, tasks and goals of the experimental study. Before the start of the experiment, the participants filled out an agreement on the possibility of using the obtained data in the course of the experiment, as well as their publication.

4. RESULTS AND DISCUSSION

Let's analyse the results separately for each parameter of the professional realisation of future art professionals. Figures 1 and 2 in the diagrams denote, respectively, primary and secondary diagnostics. The experimental group is denoted by the abbreviation EG, and the control group by CG.

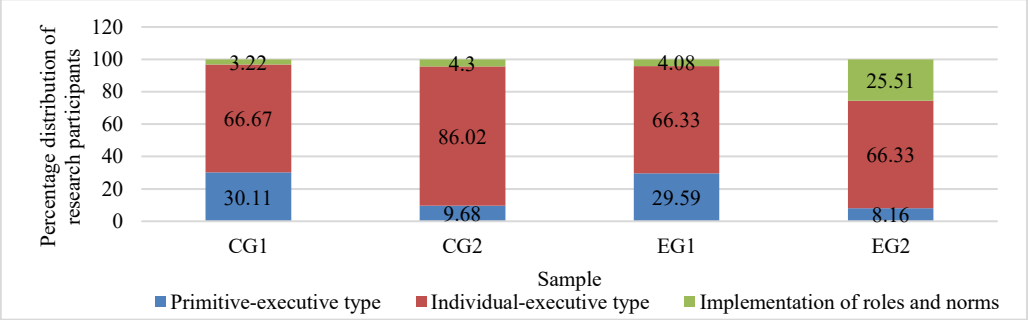

Figure 1. Dynamics of changes in types of professional realisation due to the formative experiment

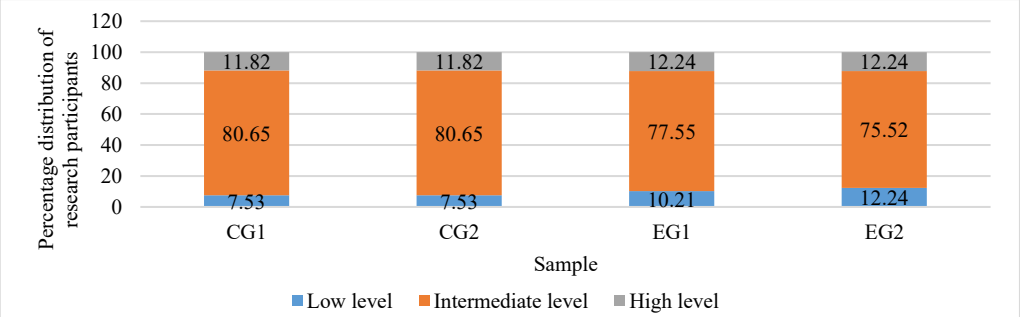

Figure 2. Dynamics of changes in satisfaction with the chosen speciality as a result of the formative experiment

The distribution of types of professional self-realisation is shown in Figure 1. The primitive-executive type of professional realisation is characterised by the prevalence of a passive position of a specialist, low self-regulation and reflection, and lack of creativity in the implementation of professional duties. Initial diagnostics show that this type of professional realisation is typical for one-third of the future art professionals studied. The individual-executive type of realisation is characterised by energy and difficulties in making professional decisions. This type is dominant in the studied samples and is inherent in more than 60% of the respondents. Realisation in the context of group roles and norms implies confidence in one's professional choice, orientation towards gaining practical experience, and awareness of one's actions in education and profession. This type is represented by a minimal number of subjects (less than 5%). After implementing the experimental programme, shifts were recorded in both samples, which manifested in a decrease in the number of people with a primitive-executive type of professional realisation. At the same time, the number of students with an individual-executive type increased in the control group (by 19.35%),

and the percentage of students with realisation in the context of group roles and norms increased in the experimental group (by 21.43%).

The distribution of occupational satisfaction indicators in the studied samples is shown in Figure 2. We can see that the average level of this parameter of professional realisation prevails in the studied samples (about 80%). The extreme values of occupational satisfaction (high and low) were distributed similarly. After implementing the formative experiment, the indicators did not change significantly in the control and experimental groups. The results indicate the lack of effective influence of the interactive educational space on this parameter.

Trends in professional motivation are shown in Figure 3. The initial diagnosis revealed the absolute dominance of external positive motivation (about 85%), i.e. the activities of the subjects are aimed at society's approval. Only a few people were diagnosed with the dominance of intrinsic professional motivation. External negative motivation (avoidance of criticism and condemnation) is typical for 10% of future art professionals. In the control group, the trends of professional motivation have remained the same. In the experimental group, the intrinsic motivation indicators increased by 23.47% after implementing the interactive educational space content. External negative professional motivation lost its relevance for 9.18% of respondents, and external positive motivation lost its significance for 14.29%. Thus, for students majoring in the field of art, orientation towards the social environment is more characteristic of their professional implementation.

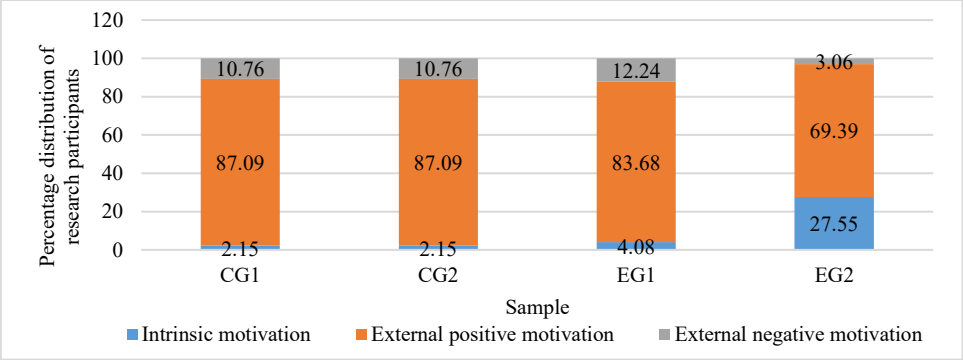

Figure 3. Dynamics of changes in professional activity motivation as a result of the formative experiment

Trends in perceptions of career development prospects are shown in Figure 4. There is a predominance of the average level of the studied characteristic, which was revealed in the initial diagnostics. High scores are represented in the study samples to a minimum. Basic career development is typical for about 15% of the subjects. In the control group, the results remained almost unchanged. In the experimental sample, the psychologically grounded implementation of the interactive educational space influenced an increase in the percentage of people with high career development perceptions by 24.49%. The number of people with average indicators of the parameter decreased by 21.42%.

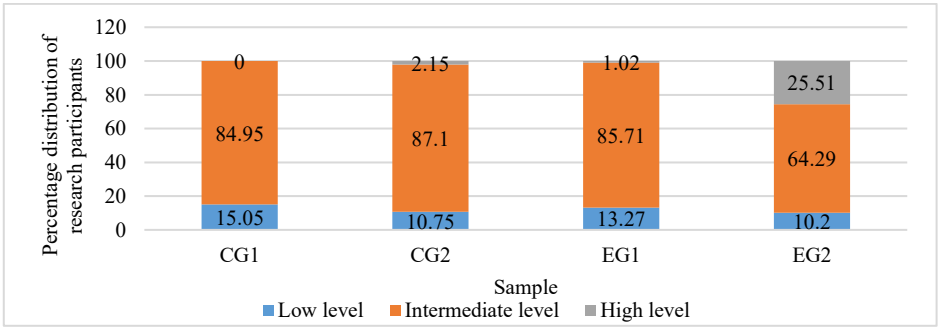

Figure 4. Dynamics of changes in perceptions of career development as a result of the formative experiment

Trends in the professional knowledge and skills of future art professionals are shown in Figure 5. The average values of the parameter prevail in the studied groups. More than 20 % of the studied persons with high cognitive and activity competence indicators were found. The smallest number of subjects has low indicators of knowledge and skills in the professional sphere. In both samples, after the implementation of the formative experiment, the high indicators of the component increased due to a decrease in the percentage of people with average values. At the same time, the number of people with a low level of the parameter remained without significant changes.

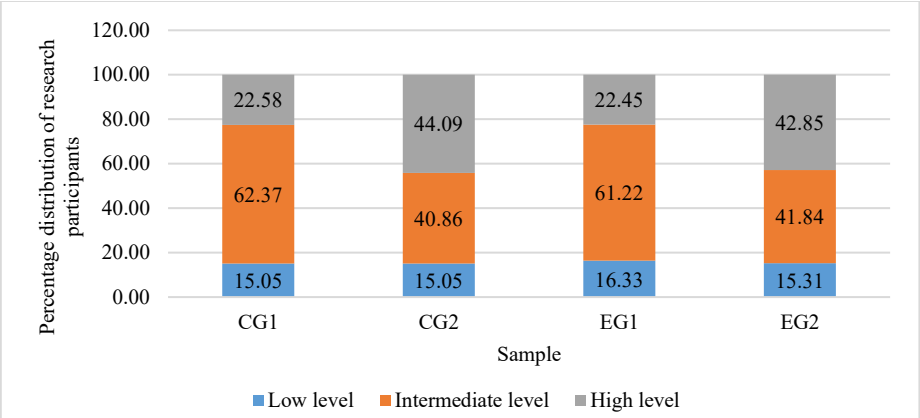

Figure 5. Dynamics of changes in cognitive and activity competence as a result of the formative experiment

To substantiate the conclusions, the student's t-test was calculated. The expediency of using this particular statistical procedure was proved by checking the normality of the statistical distribution using the Kolmogorov-Smirnov test. The results of data processing are presented in Table 1. In both samples, significant changes were recorded in the parameter of the type of professional realisation (in the control sample at p=0.05 and in the experimental sample at p=0.01). No statistically significant changes were found in the parameter of satisfaction with the chosen speciality after implementing the experimental programme. Substantial changes in the experimental group were recorded in the component of professional motivation (p=0.01), perception of career growth (p=0.05), and cognitive and activity competence (p=0.05). In the control group, changes in professional knowledge and skills were found at the significance level of p=0.05.

Table 1. Student's t-test coefficients of the component of the professional realisation of future specialists in the art area after the implementation of the formative experiment

Components of professional self-realisation	Student's t-test	
	Control group	Experimental group
Type of professional realisation	2,477*	3,865**
Satisfaction with the chosen speciality	1,328	1,158
Professional motivation	1,448	2,987**
Perception of own career development	1,294	2,513*
Cognitive-activity competence	2,343*	2,476*

We agree with the conclusions about the effectiveness of the psychologically sound use of information technology in higher education institutions in times of war [2]. Students also demonstrated a positive attitude towards working in an interactive educational space [3]. The results of our observations differ from the conclusions about optimising the cooperation of students in an interactive educational space [5]. The differences are explained by the study's socio-cultural aspect and the study sample's characteristics. The interactive space is favorable for forming a creative approach in the future profession [18], but it depends on the specific speciality. Equality of participants in the interaction is essential for implementing an interactive educational space [22]. A flexible approach to the teacher's organisation of the learning process, manifested in giving students more independence in choosing the trajectory of the educational space, has also proved effective [19]. Before designing an interactive educational space, it is essential to find out the specific psychological characteristics of students through testing or observation [30]. It is advisable to stimulate

motivation and develop reflection using interactive technologies [31]. Higher education should not just compensate for the shortcomings of traditional education [15] but should be based on the harmonious interaction of these approaches.

The study results would be more accurate if educational and professional programmes differentiated the study samples since the groups formed are quite heterogeneous. Also, it is worth noting that the research was conducted in a short period of time, which did not provide an opportunity to investigate other important components of professional realization. Moreover, to investigate the dynamics of changes over a period of 5 years in order to determine which technologies more effectively affect professional self-realization compared to others. This would provide an opportunity to conduct a more in-depth analysis.

5. CONCLUSION

The obtained results confirm the hypothesis about the effectiveness of a psychologically grounded interactive educational space for the professional realization of future specialists in the field of performing, musical, visual, and decorative arts. The conditions of effective influence of the interactive educational space on professional self-realization are a reflection on achievements, stimulation of motivation, the flexibility of educational content implementation, and the creation of an emotionally favorable atmosphere. The average indicators of the formation of components of professional self-realization of future specialists in the field of art prevail. An interactive educational space that stimulates reflection and motivation of students has a positive impact on the type of professional realization, professional motivation, assessment of future careers, and the formation of academic knowledge and professional skills. At the same time, positive changes in the cognitive-activity component and the type of professional self-realization are recorded in the implementation of a conventional interactive educational space. The obtained results can be used to optimize the use of interactive educational space in higher education institutions in the process of training specialists in the field of knowledge "culture and art". In particular, the data on the peculiarities of creative tasks, the specifics of conflicts, and the dynamics of professional self-realization components can serve as guidelines for improving the educational process. Further prospects for researching the problem are seen in the differentiated study of the specifics of the impact of interactive educational space on the personality of a future specialist in the field of art.

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