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AmurCon 2021: International Scientific Conference**INFORMATION COMPETENCY OF UNIVERSITY STUDENTS IN
MEDIA EDUCATION PROJECTS**

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Abstract

The article deals with the research in the development of information competency of university students and project-based learning. The research methods are a review of current research on students' project-based learning and development of their information competency, modeling and extrapolation. It is noted that the educational results of project-based learning of students are media-education projects as research and innovative projects to solve educational problems and learning objectives, affecting the quantitative and qualitative changes in the development of students' professional competency, including information competency, and self-development. The authors of the study emphasize that media education projects promote personal development with the help and through the content of social media and digital technologies, to develop information literacy in dealing with appropriate digital resources, project literacy, teaching various means of self-expression through digital tools. The teaching conditions of developing students' information competency as a transprofessional competency within the promotion of project-based learning in higher education and mastering academic skills by students in the form of media-education projects are also outlined. The paper describes the pedagogical experience of promoting the project-based learning system in a higher education institution and implementing pedagogical conditions of students' information competency development through the preparation of media education projects.

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1. Introduction

In present-day conditions of digitalization in education, the issues of development of students' professional competencies, including information competency, based on the arrangement and promotion of project-based learning systems are focused on.

The relevance of the research is related to the search for new views of the information competency process development and project-based learning of university students through their preparation of media education projects.

In the age of digitalization, many scholars apply to the study of digitalization, digital didactics, emphasizing different competencies, which are necessary to have in the digital era. One of these competencies is information competency.

Conducting long research in this field, at the present stage of educational system development within the digital transformation (Luchaninov et al., 2019; Polichka et al., 2020; Tabachuk et al., 2020, 2021), we give the phenomenon 'information competency of university students' new meanings, arguing that information competency is a sociocultural phenomenon and a transprofessional competency.

We emphasize that transprofessionalism is going beyond one profession, strengthening knowledge and technologies related to other types of professional activities, developing key competencies. One of them is information competency used in different types of activities and providing communication.

The socio-cultural context of understanding information competency is brought by Khabekirova et al. (2021), who features the phenomenon of 'information literacy' and refer it to media education. The authors emphasize that a high level of information literacy, and thus information competency, can be achieved through a productively arranged system of media education that uses current methods and techniques to develop the ability to perceive, analyze and evaluate texts and search for contexts. Following Buryak (2021), Kornilov and Rusinov (2021), who implies the proper meaning into media and information literacy comprehension. On the one hand, it is a phenomenon of contemporary society to enhance intercultural communication and the ability to collect, process, store and transmit media texts and social contexts. On the other, it is a strategic resource of an individual in modern society. We consider information competency as a socio-cultural phenomenon of modern society with the resource potential of adaptation in the digital age. The development of such a personality skill as information competency is possible through the construction of a project-based learning system for students.

At present, there is a growing interest in project-based learning, its ideas are developed in the studies by Khidirova (2021) on a project technology, on project work with achieving the aim of project activities and obtaining a creative product; on a project-based approach in student learning by Eskalieva (2021); when applying to the motivation in student project activities by Borisenko and Volodina (2015); on the project approach aimed at a creative product by Bystritskaya and Neverkovich (2021), on the development of reflective and project thinking literacy, on the interdisciplinary approach to creating an educational project; on the project method and its effects in the learning process, on computerization of project activities of all participants involved in education (teachers, students, project partners) by Miryugina and Kornilov (2021). The studies of these authors solve different points of project-based learning and help to identify pedagogical conditions for developing students' information competency as transprofessional within the development

of project-based learning systems in a higher education institution and obtaining students' academic performance as media education projects.

2. Problem Statement

Based on the study of theoretical aspects of the issue under study and the accepted practise, we have identified contradictions between the standing practice of understanding the phenomenon of 'information competency of university students based on the information approach (data processing) and the necessity to expand the distinctions of its understanding in the context of the socio-cultural phenomenon and transprofessionalism; between the necessity to implement a project-based learning system and find new meanings of the phenomenon 'media education project' and the lack of development of pedagogical conditions for the development of students' information competency as a transprofessional competency through the preparation of media education projects.

The revealed contradictions determined the problem of searching for new contexts in understanding the phenomena 'information competency of university students' and 'media education project', relevant methodological approaches to the development of students' information competency through the preparation of media education projects.

3. Research Questions

Here are some definitions regarding the phenomena of 'information competency' and 'media education project'. Information competence is the ability and readiness to apply effective means and ways of carrying out information processes (storage, transmission, processing) (Kovalova, 2021). Information competency is a broader notion that includes the ability to comprehend, a critical relation towards information, and being able to exist in a digital space (Baryshev et al., 2021). These researchers have an informational approach to understanding the phenomenon of 'information competency'. Media education project, as an object of research, is defined by scientists (Andreeva et al., 2018) through models of media education activities, development of the media competency of an individual. Media education projects are considered as a type of project technology (or a project-based method), which involves real project activities related to the production of a website, a film, a video clip, etc. They involve exploratory activities to develop skills and abilities to process massive information flows, influencing the quality of media content (Andreeva et al., 2018). It is required to expand the understanding of the phenomena 'information competency of university students as transprofessional' and 'media education project'; to design the development of students' information competency as transprofessional through the preparation of media education projects based on this interpretation; to specify the pedagogical conditions of effective collaborative activities of an instructor and students while implementing media education projects.

4. Purpose of the Study

The aim of the study is to define new views of the phenomenon 'information competency of university students as transprofessional' and 'media education project', to identify pedagogical conditions of development of students' information competency as transprofessional in the promotion of project-based

learning in university and students' mastering academic achievements resulting in media education projects, to render educational experience in introducing a project-based learning system at university and pedagogical conditions of students' information competency development.

5. Research Methods

The major research methods are the review of contemporary research on students' project-based learning and development of their information competency, modelling, and projection as methods allowing finding out pedagogical conditions of effective teachers and students' joint activities to create media education projects in the learning process.

6. Findings

In the present-day context of digitalization of the education system, let us define new ideas concerning the phenomena of 'information competency of university students as a transprofessional competency' and 'media education project'.

Transprofessional competencies, one of which is information competency, are future skills. A distinction is made between hard skills as competencies demonstrated in a job family field, and soft skills as transprofessional competencies acquired and developed lifelong, characterized by breaking the bounds of one profession (Baibekova, 2021; Lyu & Liu, 2021).

Information competency of university students as soft skills incorporates all peculiarities of transprofessional competencies and is expressed in its own way through the understanding of socio-cultural component.

On the one hand, information competency as a transprofessional competency is acquired and developed throughout life; it is characterized by moving beyond one profession; it is included in soft skills; it reflects meta-disciplinary learning results; it includes transdisciplinary knowledge and convergence of interprofessional activities.

However, information competency as a socio-cultural phenomenon is revealed through literacy of processing professional context as the transformation of information into the texts of one's own consciousness; literacy of presenting learning results obtained as media learning projects; literacy of managing project activities for information security; literacy of dealing with media information in the aspect of relevance; literacy of mobile solution of learning problems through media learning projects; The literacy of managing Internet communication activities in the digital educational environment of a university-based on the principles of 'digital hygiene'; the literacy of mastering universal ways of self-presentation of media education projects with a positive digital footprint; the project literacy, etc. (Tabachuk et al., 2020). These points can be developed while university students are preparing media education projects.

Media education projects are meant as research and innovative projects for solving educational problems and learning objectives, influencing quantitative and qualitative changes in developing students' professional competencies, including information competency, and self-development. Media education projects promote personal development (development of their information competency in professionally relevant activity, project activity) with and through the content of social media and digital technologies, to

develop a literacy of dealing with digital resources, project literacy, teaching various forms of self-expression through digital tools.

Here are the pedagogical conditions of students' information competency development as a transprofessional competency within the project-based learning system promotion in higher education institutions and students' learning results as media education projects. They involve the following:

- arrangement of anthropologically based transcultural university environment as an open educational ecosystem of cultivating 'human' properties of a person by means of self-education and going through the stages of project activities;

- interaction among university lecturers based on the common understanding of the phenomena of 'information competency of university students as a transprofessional competency' and 'media education project';

- consideration of the project potential of professionally relevant activities;

- media education projects, which consist of practice-oriented and interdisciplinary principles of transprofessionalism, may become a tool for developing university students' information competency as transprofessional one;

- the use of mapping as a process of creating a map, i.e. the way to visualize the future and a strategy for self-development of a student personality.

We describe the pedagogical experience of introducing the system of project-based learning in a higher education institution and the implementation of pedagogical conditions of developing students' information competency as a transprofessional one within the promotion of the system of project-based learning in a higher education institution and obtaining educational results by students as media education projects.

The development of students' information competency as a transprofessional competency and promotion of project-based learning system through students' preparation of media education projects should be carried out while studying Computer Science, Information and Computer Technologies in Professional Activities, Modern Techniques of Assessment of Learning Results courses, etc.

Types of media education projects designed by students may include:

- visualization maps based on reference signals according to the method of Shatalov (Postnikov, & Andrienko, 2013);

- visualization maps inscribing technology;

- interactive dialogues;

- digital educational resources for professionally relevant activities (Tabachuk et al., 2021).

In the 2020-2021 academic year 35 full-time, part-time and graduate students majored in Pedagogical Education prepared media education projects while studying Computer Science, IT and Computer Technologies in Professional Activity, Modern Techniques of Assessment of Learning Results courses, etc., which contributed to personal development (development of student information competency in professionally relevant activity, project activity) based on the content of social media, digital technologies, teaching literacy of processing digital resources, a project literacy, teaching various forms of self-expression through digital tools (Table 1).

Table 1. Results of promoting student project-based learning system as media-educational projects

Media Education Project	Resources	Project Objective
Visualization maps in Computer Science learning	MindMeister, Linoit, Miro	Development of visualization maps for some Computer Science units as a way of capturing ideas in the form of diagrams, keywords, definitions, signs, examples, conclusions, etc. There is meaning-making, the development of the ability to highlight the main points in the text, create their contexts, including digital ones through the maps
Reference signals and scribing in Computer Science	Powtoon, YouTube	Development of <i>reference signals</i> in some sections of the Computer Science course through the method proposed by V.F. Shatalov (Postnikov & Andrienko, 2013), presenting the content in brief and appealing to associative memory. Use of video scribing as a new format for depicting reference signals based on visualization of information which is created as an effect: <i>FAST, MODERN, PRECISE</i>
Interactive dialogues in Internet communication	Online Test Pad	Building Interactive Dialogues in Computer Science Learning through Internet Communications
Digital learning resources for professional and meaningful activities	eTreniki, Stepik, StoryJumper, Thinglink, Quizlet, Online Test Pad	Development of digital learning resources for professional and meaningful activities through literacy of dealing with digital resources, project literacy, various forms of self-expression using digital tools
Digital learning resources for studying <i>Computer Science Information and Computer Technologies in Professional Activity</i> for university students	LearningApps, Thinglink, Online Test Pad	Exploring Internet services and using them to create digital learning resources for studying the course <i>Computer Science and Computer Technologies</i> by developing interactive posters, interactive exercises, and interactive tests
Integrating digital learning products on interactive sticker boards	Linoit, LearningApps, Online Test Pad, Stepik, StoryJumper	Presenting a media education project as an integration of digital educational products on interactive sticker boards

A media education project for students is a positive digital educational pattern as an original approach to self-expression in the real and virtual world.

The resources for media-educational projects are online services and platforms, which implement professional competencies in organizing learning activities and using distance learning technologies, in subject-subject interaction in an interactive form based on thought-activity.

When implementing pedagogical conditions of student information competency development as a transprofessional one within the project-based learning system promotion in a higher education institution and obtaining educational results by students in the form of media-educational projects, we observe an increasing student information competency development, expressed in the manifestation of digital resource literacy, project literacy, in operating various formats of self-expression through the digital tools and media education projects.

7. Conclusion

To conclude, the study identifies new ideas of the phenomena of Information competency of university students as a transprofessional competency and Media education project.

The information competency of university students is considered as soft skills and involves the characteristics of transprofessional competencies, and is revealed through the understanding of the socio-cultural component. Different aspects of information competency are required to be developed in preparing media education projects by university students.

Media education projects act as a 'driver' of personal development (development of student information competency in professionally relevant activity, project activity) with and through the content of social media and digital technologies, to develop a literacy of dealing with digital resources, project literacy, teaching various forms of self-expression through digital tools.

The pedagogical conditions for the development of students' information competency as a transprofessional competency in the promotion of project-based learning in high school and the students' obtaining educational results in the form of media-educational projects are outlined. The media education projects, embracing the practice-oriented and interdisciplinary principles of transprofessionalism, can serve as the tools for developing information competency of students as transprofessional ones.

Pedagogical experience of introducing the system of project education in higher educational institutions and pedagogical conditions of information competency development in higher educational institutions are described. The types of media education projects designed by the students of Pedagogical Education major are identified. The courses during which the students prepare media education projects are listed. The topics of the media education projects and resources for their preparation, as well as the project objectives, are emphasized. The impact of the designed pedagogical conditions on the development of information competency of university students is presented.

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