Methodological Aspects of the Development of Creativity and Creative Competencies in the Formation of the Curriculum of Education: Analysis of Foreign Countries and the Experience of Uzbekistan

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***Abstract*—The purpose of this study is revealing the essence of the concept of creativity. The content of the concepts of creativity and creative competence is included in the curricula of foreign countries and the Republic of Uzbekistan. The study analyzed 13 state curricula. In conclusion, there are opportunities to apply creativity and creative competencies in the educational process.**

***Index Terms*—curriculum, creativity, creative competence, education system**

I. Introduction

The origin and development of different professions in the world depends on the creative approach of industry professionals to their professional activities. The reason is that in such conditions people develop the ability to think creatively.

Today, barriers to the professional development of professionals in educational institutions are still a pressing issue. Pedagogical activity is usually characterized by high psychological contradictions (high dynamism, problematic situations in the pedagogical process). This has an impact on the quality of education.

The purpose of the article is analyzing methodological aspects of the development of creativity and creative competencies in the formation of the Curriculum of education comparing foreign countries and the experience of Uzbekistan.

In the process of our research, a statistical analysis of the concept of creativity and the degree of incorporation of creative competence in the curricula of foreign and Uzbek education systems is presented.

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II. Literature Review

The creative qualities of the pedagogical profession have been studied by representatives of various fields and have been interpreted as the basis of creativity in professional activity.

TABLE I. About the Role of Creativity in Pedagogical Activity

Definitions	Authors
As the development of education depends on non-standard thinking and action, creativity remains an important part of it	Yu.N.Kulyutkin (1986), V.I.Zagvyazinskiy (1988), D.Nikandrov, V.A.Kan-Kalik (1990)
Creative potential is one of the integral characteristics of a teacher. The basis is the unsystematic use of various methods and tools in the pedagogical process	A.K.Markova (1993)
Creativity is often seen in the activities of industry representatives working in social groups. At the same time, they are the "object" of their activities and differ from other industries by their unique features	E.A.Klimov (1974), N.Yu.Xryashcheva, S.I.Makshanov (2001)

Creativity is a concept that supports innovation, novation and creativity together. In 2019, scientists from Alliant International University in San Francisco, USA conducted a training on "Creativity in education" to assess the logical and creative thinking of teachers of

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mathematics, physics, computer science and humanities in California schools. During the training, an online platform was created for teachers, which included materials on the subject and step-by-step test assignments. The training tasks are designed for a week, at the end of which is aimed at developing an innovative methodical project. The main focus is on the logical analysis of the given material on the basis of creative abilities and the development of the ability to organize lessons on a project basis [2].

It is noted that there are no clear statements on the definition of creativity and creativity in studies that address issues of creativity. [3]. The analysis of modern definitions of creativity from early scientific-theoretical research brings out two components that are unique: originality (or novelty) and the relevance of the task at hand. [4], [5]. The notion that something is new and creative enough to meet a wide range of requirements for its purpose is now widely accepted as a "usual" definition [6]. These two dimensions are multiplicative, so if something is very original but does not fit the task, or is very relevant to the task but not original, it is not creative [7].

The idea of incorporating creativity into the curricula of educational institutions was put forward by the Organization for Economic Co-operation and Development (OECD) and attracted the whole world. [8].

A.J. Kropley and Gribov et al see the figurative and constructive components of education in their traditional, goal-oriented, and proportional approaches. [9], [10], [11].

Research in recent years has focused on incorporating the concept of creativity into curriculum content. For example, Cremin (2017) [12], Heilmann and Korte (2010) [13], Bereczki [14] and Cachia et al. [15] highlighted the presence of creativity and innovation in curricula in European countries.

Cremin (2017) argues that the inclusion of the concept of creativity in curricula depends on the educational regulations adopted in each country, i.e. the qualification requirements of professionals in the field [12].

To develop such an ability in learners, teachers need to focus on managing and modeling creative learning through creative teaching, but there are different perspectives and approaches, and the solution to the problem of how to apply them in practice remains open [16].

Primary research focuses on the existence and characterization of creativity within curricula. For example, Cremin (2017), Heilmann and Korte (2010), Bereczki (2015) and Cachia et al. (2010) highlighted the availability of creativity and innovation in curricula across European countries. Cremin (2017) noted that there are differences in several curricula because in some countries curriculum documents are filled with terms such as "creativity," while in others they are not significantly. Cachia et al. (2010) reported that there are institutions in various European countries where learning practices that promote creativity are conducted. They identified five key areas, including curricula, pedagogy and assessment, teacher training, information and communication technology (ICT), educational culture, and leadership. In addition, Heilmann and Korte (2010) identified differences in the curricula of terms such as "creativity" and "innovation" within curricula across Europe.

As a result of the analysis of the curricula of European countries, it can be seen that the spiritual and cultural heritage of the countries is integrated into the curricula.

The Republic of Uzbekistan has a six-stage system of continuing education, of which the system of professional education and higher education serves to train representatives of the field. It is known that the development of creative abilities and the formation of creative competencies of future professionals is becoming one of the most pressing issues.

III. Objectives and Methodology

The results of the analysis of the concept of creativity presented in the curricula of the states are given in the table below. (Table II).

TABLE II. Analysis of the Concept of "Creativity" in the Curriculum of Foreign Countries and the Republic of Uzbekistan

Name of the country	Able/unable	Meaning
Australia	**Able**	Critical and creative thinking is one of seven common skills introduced into the field of education. "Creativity involves learners learning to create and apply new ideas in a specific context, to re-examine existing situations, to identify alternative solutions, and to see or create new relationships that yield positive results." [1]
England	**Unable**	One of the main goals of the curriculum is "to help appreciate human creativity and achievements"[2]
Estonia	**Unable**	Design and technology represent critical thinking and imagination. There is no clear definition. Creativity has been used in 22 curricula. "Creating an environment that develops creativity and developing methods" (e.g., methods such as role-playing games, creative writing, and artistic self-expression). More emphasis is placed on creative thinking and creative work than in other curricula, but in our study, "creativity" is not sufficiently included in the curriculum [3].
Finland	**Unable**	Creativity is seen as a human inner skill, i.e., the imagination is highlighted as seen in self-description.
Hong Kong	**Unable**	The concept of "creativity" is used in a total of 19 curricula, and is considered as a type of activity "self-expression" and "abstract thinking".
Hungary	**Able**	The concept of "creativity" has been used in a total of 69 curricula, but no clear definition has been given.

[1] (Australian Curriculum and Assessment Reporting Authority, 2014, p. 1)

[2] Department for Education, 2014, p. 5

[3] Republic of Estonia Ministry of Education and Research, 2017, p. 5

		"Creativity" is seen as an individual's ability to take initiative [4].
Iceland	**Able**	Creativity is considered as one of the 6 basic concepts of education and forms the basis of curricula. Creativity is the ability to create problems and solve them; Creativity is about shaping the problem and linking it to the individual's activities so that he or she can innovate as a result. Creative abilities are emotional feelings that create problems through the development of research skills that are realized on the basis of human curiosity and are reflected in their activities based on experience in finding solutions [5].
International bachelor's degree (professional education)	**Able**	Creativity is seen as one of the 16 key components. Creativity is about developing new ideas and applying them to new perspectives. Creativity is about identifying the value of ideas and proposing innovative solutions to problems; as a result, it appears in production or innovation [6]
Ireland	**Able**	Founded by the Department of Culture, Heritage and Gaeltacht (2016), Creative Ireland 2017-2022 is a set of innate abilities and skills: the ability of individuals and organizations to go beyond generally accepted ideas and norms and add value to human activity. relying on imagination to create ideas" [7].
New Zealand	**Unable**	Creativity in the curriculum is based on the concept of "life long learning" of young people as a starting point for thinking confident, creative and active seekers among students [8]
Scotland	**Able**	Definition of creativity "What is creativity?" is derived from a government document called "the ability to create original ideas for man and society, to look at change with a new eye, to be open-minded, to make connections, to use imagination to explore new possibilities". Creativity is also the ability to recreate the world, shape and develop the future" [9]
South Korea	**Able/unable**	Demonstrate creativity with new thinking and challenges based on core skills. One of the five goals of the curriculum is to promote students' independence and creativity [10].
Uzbekistan	**Able**	The module "Innovative educational technologies" in the training of teachers of higher education institutions is 10 credits, including 4 credits "Creative teaching methods." The curriculum for undergraduate students of pedagogy includes 180 credit subjects "Creative Competence and Ways to Develop It" and "Creative Education".

According to our analysis, the curricula of 4 out of 13 countries provide clear definitions of the concept of "creativity". In general, in the education system of foreign countries, creativity is defined as the creation of new ideas in relation to the activities of the individual and their manifestation in practice. There are also misconceptions that creativity develops in people with certain abilities.

IV. Conclusion

In conclusion, the inclusion of topics in the curriculum of the education system aimed at developing creativity and creative competencies provides the following opportunities:

1. Teaching creative thinking;
2. Development of creative abilities;
3. Awakening and stimulating inner motivation;
4. Creating a learning environment that supports creativity;
5. Use your imagination.

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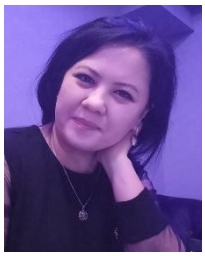

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