

Ways and Results of Developing Professional Creativity of Teachers in the Courses of Retraining Pedagogical Staffs: An example Uzbekistan

Pozilova Shakhnoza Khaydaraliyevna ¹, Ashurova Sanobar Yuldashevna ²,
Khudoyberdiyev Zayniddin Yavkashevich ³, Alijonov Utkirjon Maxamadaliyevich ⁴

¹*Associated Professor (Researcher DSc), Institute for Pedagogical Innovation, Retraining and Professional Development of Senior and Pedagogical Staff of Vocational Education, Tashkent, Uzbekistan.*

²*Professor, Institute for Pedagogical Innovation, Retraining and Professional Development of senior and Pedagogical Staff of Vocational Education, The Head of Department "Innovative Projects, Science and Technology Education Transfer", Tashkent, Uzbekistan.*

³*Professor, Institute for Pedagogical Innovation, Retraining and Professional Development of Senior and Pedagogical Staff of Vocational Education, Director, Tashkent, Uzbekistan.*

⁴*Associated Professor, Ministry of Higher and Secondary Specialized Education of the Republic of Uzbekistan, Head of the Main Department of Educational and Methodological Coordination of Vocational Education.*

*Email: ¹*informatikpozilova@gmail.com, ² Sashurova@inbox.ru, ³ zayniddin@inbox.ru, ⁴ u.alijonov@edu.uz*

Abstract

This article outlines ways to develop teachers' professional creativity in retraining pedagogical staff courses as trends. Author's definitions of the concepts of professional creativity, professional creativity of the teachers were given. Problems of developing professional creativity and their solutions are presented. In addition, the authors were given tasks aimed at developing the professional creativity of ICT teachers.

Keywords: professional creativity, Trends, retraining courses, digital society, vocational education.

I. INTRODUCTION

Digital technologies are now an integral part of society. The technical devices used in daily life, including smartphones, tablets, computers, virtual reality, etc., are a small part of the digital society. At the same time, society is becoming increasingly dependent on digital technology and its infrastructure. Banking, electrical networks, engineering, medicine, education, let alone digital technologies used in every aspect of society, are examples of this. According to final statistics, the three main components of digitization are machine learning, platform learning and crowd-based action [1].

The innovative pedagogical process of a professional education teacher should be based on a creative approach of cooperation between teacher and student, that is, the learner should be able to solve not only scientific but also existential problems (existential (secular, scientific and philosophical, etc.)). should. We describe the result of this process as the ability of teachers of professional educational institutions self-life creativity. It should be noted that in this educational environment, the teacher becomes a subject-object, and the student becomes an object-subject, that is, the teacher creates a methodology for developing the creative abilities of the learner. This in itself

is the basis for the formation of a teacher's professional creativity.

II. LITERATURE REVIEW

According to Tomi Dufra and Mikko Dufra, a member of the digital society should have knowledge and skills about the basic concept of digitalization and digital technology trends [2].

In our opinion, the organization of education in a digital society environment is characterized by the availability of teachers' skills in the use of digital technologies in the educational process, as well as the development of the ability to use new innovative technologies and have a productive basis.

Topical issues such as ensuring the high efficiency of the educational process, encouraging students' initiative, research and creative skills, and shaping their professional creativity as part of softskills are important factors in retraining and upgrading the system of professional education teachers.

In the digital society, the professional creativity of teachers of computer science and information technology in professional educational institutions is the creation of new ideas in pedagogical activities, finding original solutions to problems, identifying methodological problems in education and finding the most optimal solution and predicting the end result. we describe it as the ability to acquire a skill and qualification.

Indeed, one of the main requirements of the digital society is the high aspiration of professional education teachers to take a creative approach to their work, to be advanced, experienced, innovators, authors of research works, to improve their professional and psychological competence.

In our opinion, the formation and improvement of individual psychological competence in professional development courses for teachers of professional education, professional-personal orientation at the content level is important.

The system of professional education retraining of pedagogical staff and organization of their professional development courses on the basis of creative approaches develops the existing creative potential of each participant of the

educational process, as well as the ability to self-assess the problem of pedagogical activity and develop new ideas.

Vocational education system refers to the organization of retraining and advanced training courses for teachers on the basis of creative approaches - the practical implementation of didactic normative documents aimed at professional development of teachers of professional education and incorporating the concept of creative ability in the qualification requirements.

The professional development of professional education teachers is what we envision as a person with the ability to improve the integration of a teacher's professional activities and personal activism based on professional creativity in response to social change.

The ability of the educator to solve creative problems is determined by the ability to fully see the opportunities that serve to develop the potential of learners at different levels.

The system of professional education is a separate psychological and pedagogical process of professional development of teachers of professional development courses, which is characterized by a combination of creative activity of both teacher and student, the ability to create innovations and innovations and the application of theoretical knowledge.

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. [3], [4].

Rosenstock and Riordan see creativity as one of the most important skills in modern society and as one of the three key competencies of the Education 2030 project by the Organization for Economic Co-operation and Development [5]. Sawyer and Vygotsky point out that all learners have a creative nature [6].

The debate over the use of creativity in education raises the question of whether creative teaching is needed or whether creativity is developed. In general, both approaches are correct. Every educator must have pedagogical skills as well as personal

methodology so that he or she can develop the knowledge, skills and competencies of the learners. [7]. According to research in education [8], design [9], math [10], business [11] and engineering [12], creativity is a skill that is taught, learnt and developed.

As a result of pedagogical analysis of professional development courses in the vocational education system of the Republic, we have identified the following problems:

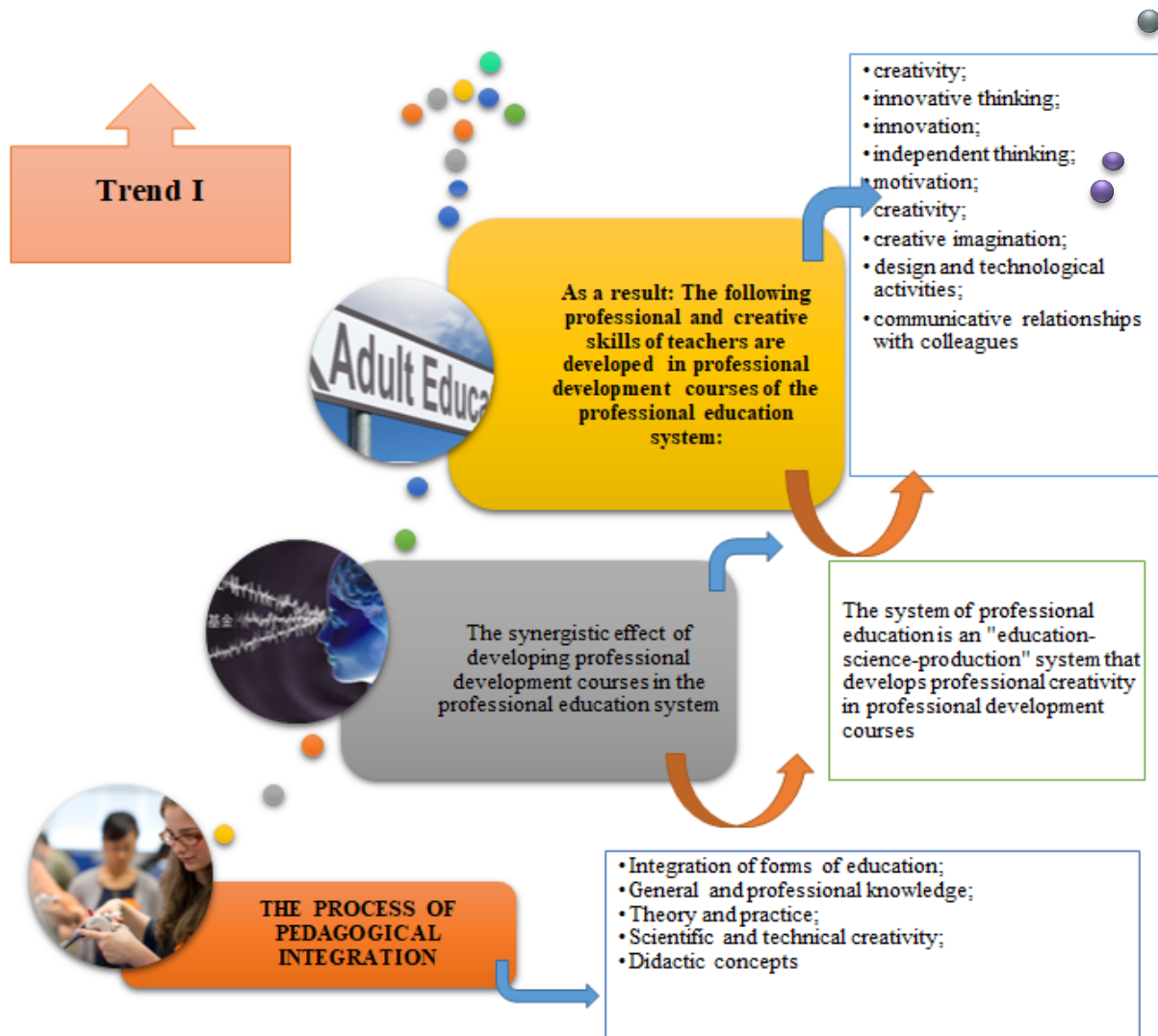
- Insufficient development of the process of pedagogical integration of the professional education system in professional development courses based on international experience;

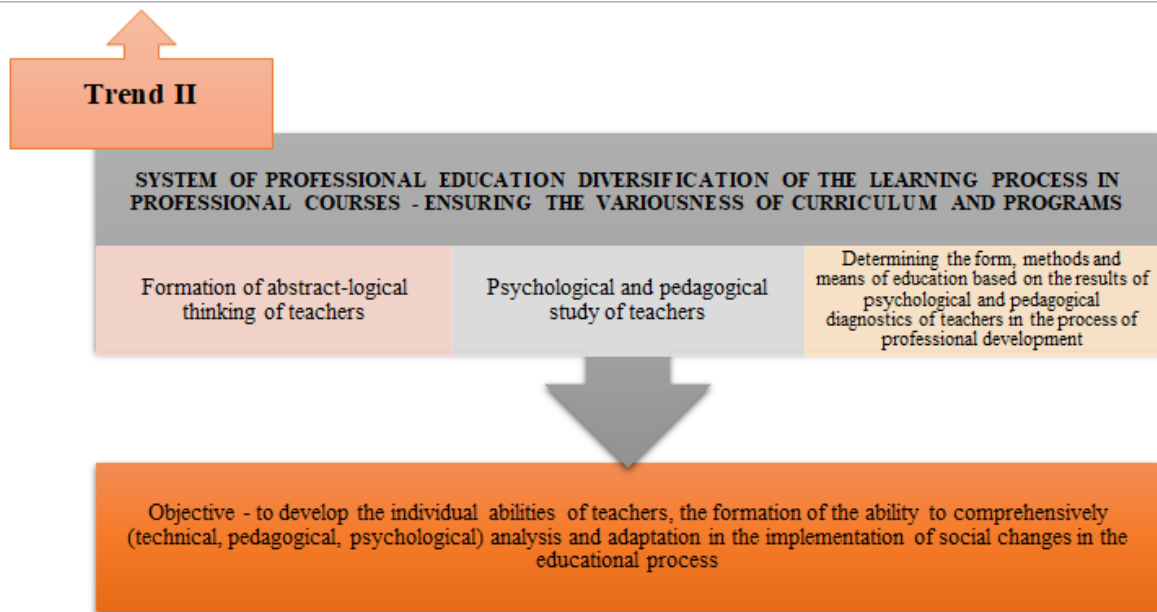
- Lack of diversification of the education system and the educational process in professional development courses;

- Vocational education system in the training courses on the principle of DLS (Digitalization of learning space) professional creativity of students (ICT creativity, methodological creativity, infographic creativity, professional creativity) is not sufficiently studied modern ICT tools, authoring software tools and ways to use them in the educational process.

III.OBJECTIVES AND METHODOLOGY

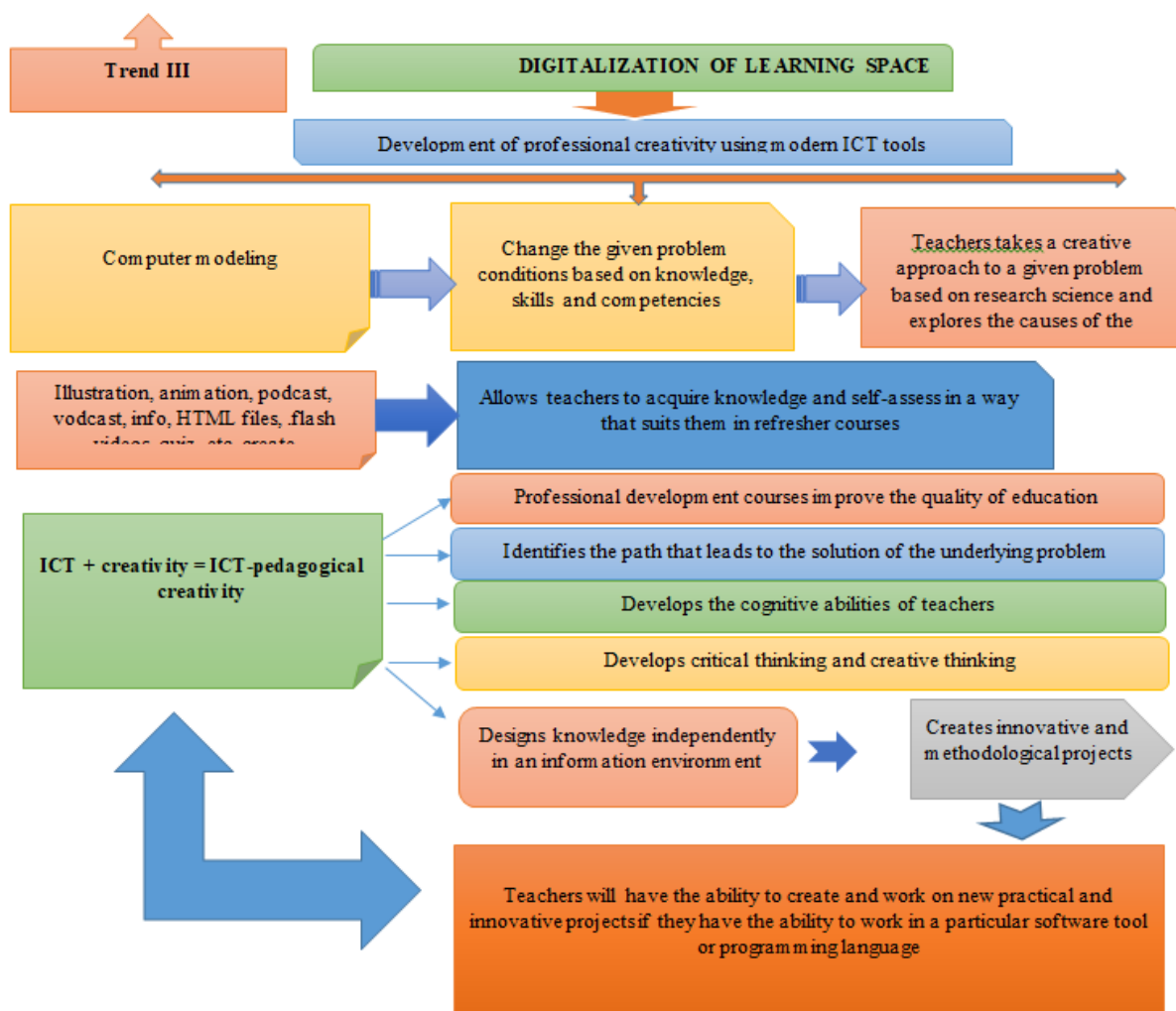
As part of our research, we propose the following systemic trends as solutions to the above problems:





Based on these trends, no matter what field of education, taking into account the high ability and flexibility of computer science and ICT teachers to adapt to rapidly changing society,

the development of professional creativity of professional teachers of computer science and ICT in professional development courses - the relevance of research.



IV. CONCLUSION

In our opinion, a number of complex tasks should be implemented in our country to improve the skills of teachers of vocational education and retraining, to develop the professional creativity of teachers of computer science and IT. We would include the following:

- Development of professional creativity of teachers of computer science and IT in vocational education institutions and the creation of conditions based on the structure of "individuality + pedagogical + psychological";
- Analysis of the organizational and content aspects of retraining and advanced training courses for teachers of professional educational institutions in a digitalized educational environment in order to diversify the educational process, ie to ensure the diversity of curricula and programs;
- Implementation of factors such as interactivity, continuity, continuity, design in a creative, individual approach to the content of training courses;
- Development of professional creativity of teachers of computer science and IT in professional educational institutions on the basis of such skills as ICT creativity, infographic creativity, pedagogical creativity, which develops pedagogical professionalism in accordance with modern requirements.

In this process, it is necessary to pay special attention to the strengthening of cooperation between related institutions, the introduction of new methods and forms of teaching, the creation of modern literature, retraining and regular training of specific, targeted measures to identify and find solutions.

From the above analysis we can see that the organization of the training process in professional development courses for teachers of professional educational institutions, the analysis of modules in the educational process and the use of innovative technologies to develop professional creativity in the pedagogical activities of specialists.

REFERENCES

1. McAfee, A., & Brynjolfsson, E. (2017). *Machine, platform. Crowd: Harnessing our Digital Future*. New York: WW Norton & Company.
2. Dufva, T., & Dufva, M. (2018). Grasping the future of the digital society. *Futures*. DOI: 10.1016/j.futures.2018.11.00110.1016/j.futures.2018.11.001
3. Organisation for Economic Co-operation and Development. (2004). *Innovation in the knowledge economy*. <https://doi.org/10.1787/9789264105621-en>
4. Organisation for Economic Co-operation and Development. (2008). *New Millennium Learners: Initial findings on the effect of digital technologies on school-age learners*. <http://www.oecd.org/site/educeri21st/40554230.pdf>
5. Rosenstock, L., & Riordan, R. (2017). Changing the subject. In R. A. Beghetto & J. C. Kaufman (Eds.), *Nurturing creativity in the classroom* (pp. 3–5). Cambridge University Press. <https://doi.org/10.1017/9781316212899.002>
6. Sawyer, K. (2015). A call to action: The challengers of creative teaching and learning. *Teachers College Record*, 117(100303), 1–34. <http://keithsawyer.com/PDFs/Sawyer%202015%20TCR.pdf>, [Vygotsky, L. S. (2004). *Imagination and creativity in childhood*. *Journal of Russian & East European Psychology*, 42(1), 7–97. <https://doi.org/10.1080/10610405.2004.1059210>
7. Jeffrey, B., & Craft, A. (2004). Teaching creatively and teaching for creativity: Distinctions and relationships. *Education Studies*, 30(1), 77–87. <https://doi.org/10.1080/0305569032000159750>
8. Beghetto, R. A., & Kaufman, J. C. (2014). Classroom contexts for creativity. *High Ability Studies*, 25(1), 53–69. <https://doi.org/10.1080/13598139.2014.905247>

9. Çubukçu, E., & Dündar, Ş. G. (2007). Can creativity be taught? An empirical study on benefits of visual analogy in basic design education. *A|Z ITU Journal of the Faculty of Architecture*, 4(2), 67–80.
10. Altıntaş, A. G. E., Özdemir, A. Ş., & Kerpic, A. G. A. (2013). The effect of teaching based on the Purdue model on creative thinking skills of students. *Kalem Eğitim ve İnsan Bilimleri Dergisi*, 3(1), 187–214.
11. Williams, S. (2001). Increasing employees' creativity by training their managers. *Industrial and Commercial Training*, 33(2), 63–68. <https://doi.org/10.1108/00197850110385642>
12. Daly, S. R., Christian, J. L., Yilmaz, S., Seifert, C. M., & Gonzalez, R. (2012). Assessing design heuristics for idea generation in an introductory engineering course. *International Journal of Engineering Education*, 28(2), 463–473. https://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=1003&context=industrialdesign_pubs