are presented in Fig. 2.

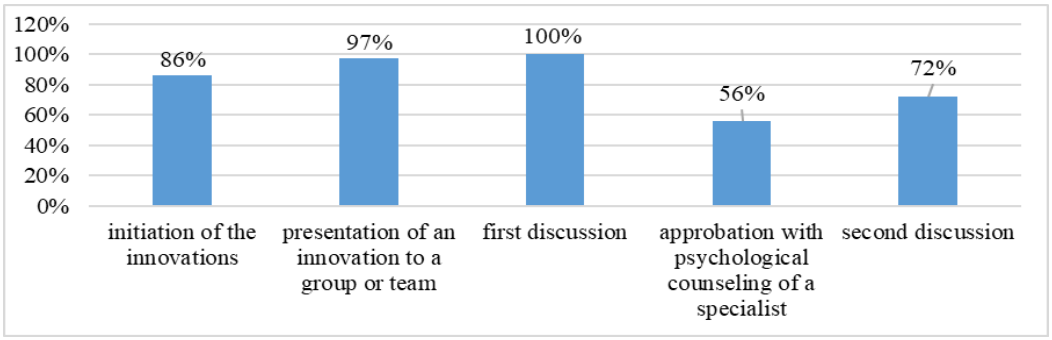

Fig. 2 Stages of sequential psychological preparation for the introduction of ICTs
Source: questionnaire data

In the free field of the questionnaire, respondents were asked to state their vision of the components of psychological readiness for ICT implementation. The author reduced the definition as follows. The receptive component, according to 78% of respondents, is the presence of knowledge in the field of information technology about the opportunity to implement educational potential. The reproductive component (most involved in the psychological aspect), according to 87% of respondents, is the presence of positive motivation to use information technology in professional activities. In the opinion of 54% of respondents, the productive component is the formation of a system of skills and abilities to use information technology in teaching. The last, creative component, selected by only 31% of the respondents, is the realization of potential in the process of using information technologies in professional activity. The results are shown in Fig. 3.

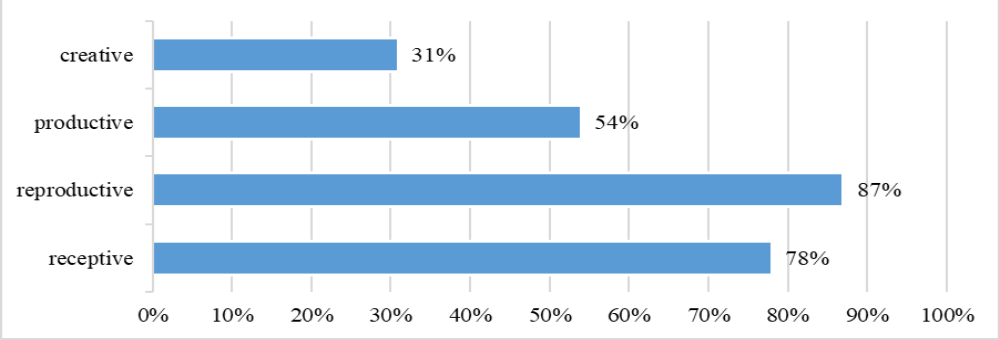

Fig. 3 Self-view of the components of psychological readiness for ICT implementation
Source: questionnaire data

The survey participants also determined that the criteria of psychological actualization of personal achievements in ICT use in professional activity are: meaningfulness of own achievements in ICT use in professional activity (83% of answers); interest in own achievements in effective ICT use (75% of answers); practical readiness to implement real actions towards high achievements in ICT use in professional activity (71% of answers); aspirations to increase achievements. The results are presented in Fig. 4.

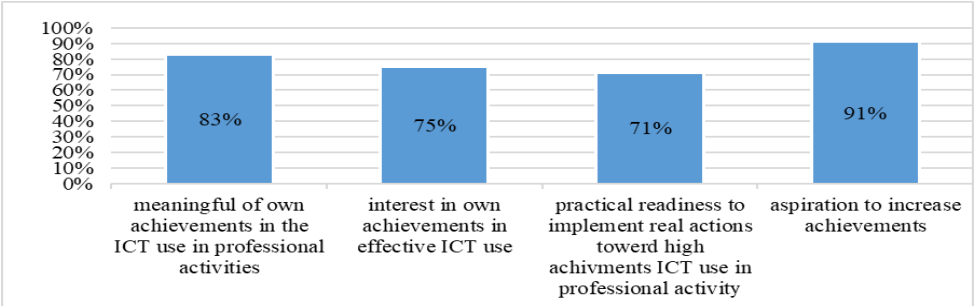

Fig. 4 Criteria of the psychological actualization of personal achievements in the use of ICT in professional activities
Source: questionnaire data

In the free field of the questionnaire respondents were asked to identify the conditions of psychological readiness for ICT application in pedagogical activity. The results were presented as follows: organic combination of the process of development of professional qualities, knowledge and skills with the process of computer science learning; integration of self-education in computer science with profile courses of professional content; inclusion of professional tasks requiring heuristic search for solution using computer and professional knowledge into the content of self-education in computer science, which is based on the problem approach; realization of interdisciplinary links by using ICT in preparation and carrying out the numerical indicators the author reduced to such percentages: 35%, 28%, 17%, 10%, 10%. The results are presented in Fig. 5.

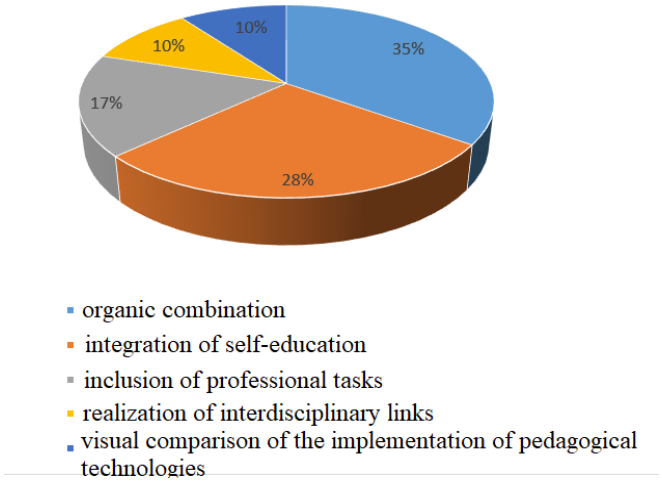

Fig. 5 Conditions of psychological readiness to use ICT in pedagogical activity

Source: questionnaire data

Under these conditions of shaping the teacher's readiness and ability to use ICT in their professional activities, the respondents were asked to determine which tasks could be solved in the context of the proposed conditions. The results are presented in Fig. 6.

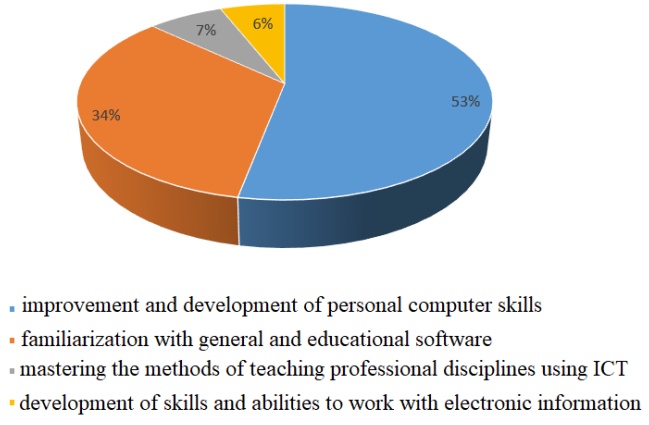

Fig. 6 Professional tasks of ICT application

Source: questionnaire data

Improvement and development of personal computer skills, peripheral devices, local and global networks were in the first place with a score of 53%; familiarization with general and educational software, modeling environments, and possibilities of their use in the learning process (34%); mastering the methods of teaching professional disciplines using ICT (7%); development of skills and abilities to work with electronic information (search, analysis, systematization (6%).

Thus, the psychological readiness of a GHSEI teacher to use ICTs should encompass such actions as possessing the skills to organize instruction using ICTs, knowing the possible rational and most effective ways, being able to combine them and adapt them to the needs of a particular audience.

V. Discussion

In our study it is important to rely on the understanding of the concept of "transmedia technology". We find it in the works of world scientists. Transmedia technology is studied and actively implemented in various spheres of life and social activities, such as media, journalism, marketing, culture, education, and the like. The introduction of transmedia technology in the professional training of teachers contributes to the qualitative development of their professional competence, broadening their horizons, improving their artistic abilities and professional skills [14].

Data from a study by Ibieta, et al. [19] in Chile indicate that teachers' use of information and communication technology in the classroom is still limited in variety and frequency in Chile. Multiple regression analyses were applied to determine the relationships between them. Findings indicate, first, that teachers are more likely to use ICTs outside the classroom for classroom preparation; second, that their perception of the impact of ICTs on professional practice is a major factor related to their use of ICTs inside and outside the classroom; third, that less experienced teachers are more likely to use communication tools with colleagues and students; and finally, that teachers' use of (off-the-rack) Internet resources should be examined.

But Kravchuk [20] defines the psychological readiness of student youth to implement educational innovations as an integrative formation that combines the manifestation of individual, personal, subjective characteristics in their integrity, the presence of functional and personal readiness of the person to implement educational innovations, which is due to the presence of a certain psychological attitude to achieve the expected result, the dominant motives and orientation. In the structure of psychological readiness of student youth to implement educational innovations it is advisable to identify the following components: emotional-motivational, cognitive-target, orientation, activity-operational, moral, communicative, volitional, mobilization, evaluation-result. The respondents of our study fully confirmed the presence of all the defined components.

The use of ICT, such as social media platforms, software

applications, software and cloud messenger, enhances teachers' online competencies and expands the range of professional competencies. Ongoing modernization of learning content based on Twitter, Telegram, Facebook, etc. should be promising for building key and professional competencies and increasing motivation in primary education teacher training [3].

In educational institutions, Punjab is a prerequisite for the professional application of ICT in several areas of society [21]. Gupta [22] offers the view that today's teachers have to update their knowledge and skills as school curricula and technology change rapidly. The transition from blackboard to smart classrooms has changed the aspect of modern teaching. Information and communication technology (ICT) can significantly support the education system if the teacher is competent enough to use the tools. To this end, the curriculum of the teacher education system also contributes to the training of future teachers. Delhi and National Capital Region (NCR) attempted to investigate the issue of psychological readiness for the proposed innovations and concluded that the inclusion of ICT component in the preparation of new teacher curriculum in the context of psychological vector is a must. Ponmozhi [23] investigated the need for information communication technology among educators in Cuddalore district in Tamil Nadu. Most educators experience a lack of psychological counseling when working with new ICT tools. Ratheeswari [24] investigating the impact of ICT on teacher education in India, concluded that the Internet and interactive multimedia is clearly an important area of future education and needs to be effectively integrated into formal teaching and learning – especially in the teacher education setting. Akhy & Iswari [25], working over an analysis of the topic in Morocco, determined that the availability of multimedia resources, tips for their use, and knowledge of how ICTs become tools for development may not be worthwhile if the psychological factor of working with them is not considered. Yusop, et al. [26], Graham, et al. [27] argue in their writings that Planned Behavior Theory is a valid model to explain Indonesian educators' use of information and communication technology during teaching practice. The scientific exploration of Robertson, et al. [28] present that Proactive Behavior Management (PBM) improves the behavior of students with and without disabilities, yet teachers rarely use such strategies. One obstacle to the implementation of PBM is teachers' beliefs contradicting a proactive approach to behavior management in favor of a punitive approach. The work of Drossel, et al. [29] and a study conducted in 5 countries (Netherlands, Denmark, Australia, Poland, and Germany) is based on the research question of what predictors (school characteristics, teacher attitudes, teacher collaboration, and general characteristics) determine the frequency of a middle school teacher's use of a computer in the classroom. Middle school teachers' use of new technology for instructional purposes is an important factor in school and instructional processes. The use of digital media in schools, among other things, is related to the purpose of supporting learning processes and improving the quality of education to gain insight on how to support the frequency of computer use in the classroom. Ferreira, D. [30], exploring the experiences of university English as a Foreign Language (EFL) teachers in East Japan explored tactics to overcome barriers to integrating information and communication technology into their daily teaching practices. It was determined that neither the computer, projector, nor the Internet were the barriers to ICT integration Complex instructional software was a barrier to ICT integration and student teaching learning objectives/gives valid solutions for successful ICT integration. Recommendations for educational leadership included equipping each classroom with a computer/projector connected to the Internet and ensuring regular maintenance of these devices, providing reliable Wi-Fi to improve ICT implementation, creating a theory-driven ICT curriculum tied to learning objectives of the curriculum.

We agree that such thoughts should also be supported by the legal framework in the area in question.

VI. Conclusion

Hence, based on the conducted research and thematic literature analysis, we attempt to make recommendations for the implementation of ICT strategy in professional activity by using information on psychological readiness of a teacher and such implementation.

The psychological process of preparing future teachers to use ICTs in professional activities should be implemented through:

- actualization of subjective position of a teacher's personality in the process of his/her preparation for ICT use in professional activity;
- psychological flexibility of management and self-management of such training process;
- psychological modular technology for structuring educational material for studying theoretical and practical aspects of ICT use in a teacher's professional activity.
- systematic unification and interconnection of the following elements:

1) motivational (expressed by interests and needs for the use of information and communication technologies, the desire for professional self-improvement in the application of information and communication technologies in future teaching activities, the desire to acquire knowledge, skills and user skills in ICT to the use of standard and special software and hardware for educational purposes);
2) cognitive, providing a set of subjects, methodological and technological knowledge, which integrates general and special knowledge in the use of information and communication technologies in secondary general education, that is, knowledge of the basics of ICT capabilities of using basic software and hardware at the user level, and for their application in educational purposes; knowledge of the possibilities of using instrumental software tools in professional activities, etc.;

3) operational and technological, a pronounced set of skills for organizing the training of students using information and communication technologies.

We recommend to pay special attention to the development of personal position, increasing the significance of the experience of using ICT in professional activity by actualizing subjective position through stimulation of personal achievements; creating problem situations in the training process; involvement in personally meaningful activities for them.

The pedagogical strategy for the development of teachers' psychological readiness to implement ICTs is recommended to be implemented in three directions. The first direction is related to the expansion of ideas of the heads of general educational organizations about the measures to encourage teachers to share knowledge. The second direction of the strategy is the formation of a favorable climate in the team, stimulating formal and informal communication of teachers. The third direction is focused on the development of teachers' motivation for self-improvement through exposure to positive practices of pedagogical success.

Thus, for successful implementation is a sound pedagogical strategy for the development of teachers' psychological readiness to use ICT, it is necessary to make the removal of internal and external barriers to the intensive exchange of information inside and outside the teaching staff, using the recommendations given.

An important direction for further research will be an attempt to identify additional barriers that suspend or completely stop the implementation of ICT in pedagogical activities.

The practical significance of the study was the presentation of the recommended strategy for the implementation of ICT strategy in professional activities using information on the psychological readiness of the teacher.

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