EDUCATIONAL SPACE AS A CONDITION OF SELF CREATION COMPETENCE FORMATION FOR PILOTCADETS OF CIVIL AVIATION INSTITUTIONS

Abstract. The article highlights the psychological and pedagogical components of the educational space as a leading condition in the formation of self-creation competence for pilot cadets. Analysis of theoretical approaches allows to form a scientific view of the educational space in the system of professional education for future aviation specialists. The main content made it possible to substantiate the competence of self-creation as a condition that implies the interdependence and complementarity of all components of educational activity, the core of which is a cadet capable of changing himself through competence.

The cadet learns, inactivates his own world for himself, constructs his educational space and, thus, provides continuous professional and personal improvement. The ability of the cadet to self-movement in the educational activity according to the scheme: «training sessions – independent work – amateur training – autodidactic skills» allows us to talk about the ability of the individual to show his independence. Also adequately correlate its intentions and potencies with the nature and complexity of the problem situation; choose the arsenal of its solutions; be ready to bear responsibility for his actions.

This is the main way of emergence of the purpose for personal and professional improvement in the cadet’s mind as a tool for transforming his own personality into the subject of self-creation. The success of the cadet in self-creation arises from the ability to design an educational space and master the appropriate algorithm. Thanks to the algorithm, the cadet feels power over his abilities and features of the psyche, his own competence in self-organization of educational activity and self-creation.

Key words: educational activity, autonomy, professional education, personal improvement, constructive, complex and synergistic approaches.
ОСВІТНІЙ ПРОСТІР ЯК УМОВА ФОРМУВАННЯ КОМПЕТЕНТНОСТІ САМОТВОРЕННЯ В КУРСАНТІВ-ПІЛОТІВ ЗАКЛАДУ ВИЩОЇ ОСВІТИ ЦИВІЛЬНОЇ АВІАЦІЇ

Анотація. У статті схарактеризовано психологічні компоненти освітнього простору як провідної умови формування в курсантів-пілотів компетентності самотворення. Аналіз теоретичних підходів дозволяє сформувати науковий погляд на освітній простір у системі професійної освіти майбутніх авіаційних фахівців. Основний зміст уможливив обґрунтування компетенції самотворення як умови, що передбачає взаємодію компонентів навчальної діяльності, основою якої є курсант, здатний змінити себе через складність проблемної ситуації, обирати відповідні стратегії, забезпечуючи у такий спосіб безперервне приростання в них компетенції.

Ключові слова: навчальна діяльність, автономія, самотворення, компетентність, авіаційні фахівці, професійне вдосконалення.

Formulation of the problem. Innovations in the professional education of future aviation specialists are reviewed here from the point of view of constructive, synergistic and competency to complement the problems of the human factor in aviation. High educational establishments do not keep up with the novelty and variety of information. It is impossible to predict what aviation specialists will need in the future. That is why, the purpose of cadets' professional training in aviation institutions, especially in condition of distance education, should be focused on finding and designing ways to obtain new information and new knowledge.

Besides, it should be focused, on the formation of an active subject position in educational activities and on the need of professional and personal self-improvement. A person with established psychological and pedagogical competencies in the future can independently find the necessary information and a way of his own professional and personal growth. Under such conditions, the cadet learns and inactivates his own world for himself; he constructs his own space. Thus, he provides continuous professional and personal improvement. The core of educational activities to form these skills for cadets should be the idea that can significantly change their attitude towards self-learning and such way they can change themselves through their own competence.
constructed by the subject through cognition and action (Moturana, Varela, 1992). «All doing is knowing, and all knowing is doing», the authors emphasized in their book «The Tree of Knowledge» (Moturana, Varela, 1992, p. 26). The ideas of constructive learning were implemented in the works of D. Dewey, in particular in «School and Society» and «My Pedagogical Credo».

Therefore, the author sees the essence of learning in the realization of the foundation of «learn by action», and the essence of education in the formation of a taste for self-learning and self-improvement. As a part of the constructive approach, the ideas of J. Dewey were implemented into practice by M. Montessori and appeared in the works of U. Kilpatrick as a driving force for problem-based learning.

Thus, the idea of «learning through action» and social space as a meaningful value gives, as it seems, essential starting points for the maximum possible understanding in the essence of the «educational space» concept. It is clear that it is impossible to do this without tracing, at least in fragments of those approaches that would create a holistic scientific idea of the «educational space» concept in the system of professional education for future aviation specialists.

The purpose of the article is to define the psychological and pedagogical components of the educational space as the leading condition for the formation of self-creation for pilot cadets.

**Presentation of basic material.** For many years, the purpose of education was in acquiring knowledge, skills and the proper level of their assimilation. The educational space was considered as a social education. The main function of which was to maintain an educational standard in the upbringing and education of the individual according to a certain pattern. In the studies of A. Sumbala, the educational space is presented as a pedagogical reality in which there is a meeting, interaction, comprehension and cognition (it is an event) of the surrounding elements—object of purposeful pedagogical influence and formation of the personality. This interaction ensures subjectivation and progressive development of objects (persons involved and things). The author emphasizes that the educational space is a system of pedagogical factors and conditions for mastering by a person in the process of formation of a specially organized pedagogical environment. It can be an object of purposeful pedagogical influence and formation (Sumbala, 2016).

Pedagogical science is obliged to a wide range of scientific studies in comprehension of the problem in educational space formation. Such studies state that the educational environment is the conditions for the upbringing and education of the individual; the educational space is the place where the individual meets the cultural fact of the educational environment.

In the case when a cultural fact has received a personal meaning, the educational environment can be transformed into an educational space for the individual. The assimilation of cultural facts in the educational environment are experienced by a person as an event and thereby he states his own educational space (Marchenko, 2012). The movement of the individual inside the educational environment is accompanied by the constant development of new ways, knowledge, skills and abilities. So, the content of education and upbringing as a part of the cultural environment should ensure the adequacy of the forming individual culture of a person, his image and his environment. The assimilation of the educational content by a person is associated with his own necessary choice. The educational space for the formation of an independent personality is formed that based on an educational environment. Cultural facts of this educational environment acquire an individual meaning (Marchenko, 2012).

Justifying the possibilities of a modern educational space, scientists emphasize the important role of key qualities that ensure the implementation of modern approaches in education, such as: integrity, unity and orderliness of the subject-spatial environment and visual perception (Franchuk, 2009); versatility, flexibility and mobility; personal conformity; personalization (Marchenko, 2011), the presence of personal space; freedom, openness of perception, creativity; harmony and balance; collaboration (Tsybalaru, 2016).

Recently, interest in the study of the problems of synergistic values formation in educational activities and related issues, including issues of activating the subject position, has increased significantly (Kremen, 2014; Dobronravova, 2017). Evidence of this is the scientific works of researchers that violate certain aspects of the problems in forming of self-creation competence (Boryshevsky, 2012; Serdyuk, 2015). In particular, L. Serdyuk under the concept of self-creation competence of the personality understands a «holistic self-deterministic, difficult-to-organize phenomenon, mediated by a complex of the personality parameters, such as: the value of self-development, the integrity of the life path perception, self-acceptance, faith in himself, readiness for self-change» (Serdyuk, 2015, s. 11). V. Tatenko defines self-creation as readiness for self-educational development, independent creation of himself (Tatenko, 2006). According to this, the research in problems of personality self-creation of pilot cadets in educational activities has extremely high relevance.

In the system of professional education of future aviation specialists, the formation of self-creation competence implies the interdependence and complementarity of all components in educational activity. And its core becomes not just a motivated cadet, but the cadet – creator who in his creation, relies on the conceptual foundations and basic needs of the individual. He feels competent to be capable for self-determination and meaningful relationships (according to Rayon, Deci, 2000). As a result, his own constructive and transformative forces are enriched by the experience of self-transcendence (according to Tatenko, 2006) and the individual spiritual experience of the self-creation subject (according to Boryshevsky, 2010).

Moreover, this is the essence of the leading value for training activities in aviation institutes. The focus on own professional and personal growth in educational activities is the ideal moment of the cadet's motivation to self-creation. Its independence and constructive position should become a priority in professional education. This will instrumentally equip the personality of the cadet.
in the knowledge of the future and the creation of the modern space. In addition, the most important thing is that his independence and constructive position will allow to fill the authorship with meaning of his own personal and professional self-development.

One of the sources for studying such a position is the idea of authorship of a living human subject in the creation of social structures in the works of T. Franchi, A. Furman, O. Marchenko, V. Tatenko, V. Kurinsky and others. Therefore, A. Furman notes «Educational activity is the metadata of a special (social-cultural-psychological) content, structure, design, canonized in such a complex phenomenon of the highest cultural affirmation of a man as creation. Naturally, a man's authentic theoretical understanding is possible only from the meta-scientific standpoint, first of all as a deep scientific reflection and as the highest methodological synthesis of all the ideas, theories and concepts previously obtained in the history of psychological and pedagogical thought. Students should go through the School of Independent Production, Cultivation, Creation to master the art of parity complicity in the educational process» (Furman, 2001, s. 106). «Actually, a meta-objective space is being formed», emphasizes T. Franchuk, «in which the main focus (center) is not the student who forms information baggage about the profession and knows how to apply this knowledge in practice, but the student as the subject of creating his profession and himself in it (Franchuk, 2009).

The «aim» from the Greek word «meta» – «over, after» symbolizes the passage beyond the own «I» and the acceptance of others as subjects of activity. It emphasizes the influence of the educational space on the individual, on the one hand, and on the other – the constructive power of the individual in recreating the educational space in his own inner experience. Thus, a synergistic metaphor of organizing anybody's own educational space is born, where the subjective abilities of the individual are the driving force of a stable self-organizing in whole. The constructing individual and the educational space constructed by him constitute a procedural unity. In this unity, the meta-individuality of a person as a leading personality property is fully manifested, which contributes to its inactivation into the educational space (Dorfman, 2005).

In our opinion, the interaction of these areas of meta-individuality forms the basis for synergistic metaforms of organization and self-organization of educational activities in aviation educational establishments. The authorship of the cadet as a subject of educational activities can be fully represented there. However, the authorship of self-organization, self-development, self-education, self-improvement, self-regulation and other didactic phenomena for which the internally determined activity of a person in common is aimed at developing his potential. It is possible only under the conditions of mature awareness of the desire and orientation of the individual to the manifestation of independence in activity (Zyazyun, 2008).

The studies of C. Rogers and A. Maslow are of particular importance for the understanding of independence and autonomy in activity. The authors focus on self-development and emphasize that the personality is represented not only as something in the process of development, but also as a subject consciously striving for self-development. And the personal way of being means not only and not so much how autonomous a person is, but also how much he strives for autonomy and independence (Maslow, 2014; Rogers, Lyon, Tauch, 2014). I. Serdyuk believes that personal autonomy is one of the main structural components of its self-creation. The process of self-creation itself is a holistic self-deterministic, difficult-to-organize phenomenon mediated by a complex of personality parameters.

The ability for self-determination, self-development, self-improvement and self-creation is realized when a person becomes a real subject. At the same time, self-improvement acts as a mechanism for the process of self-creation. The driving forces of personal development localized in the personality itself, and external factors lose their programming role (Serdyuk, Yablonska, Danyliuk ta in., 2015).

I. Zyazyun notes that the process of developing the creative potential of the individual in educational activities will become effective in implementing such mutually agreed psychological and pedagogical conditions as: stimulating activity, independence, inner freedom; the use of reflection in the process of personal and professional formation and development; designing and organizing the educational process based on personal and professional values; defining a humanistic and creative paradigm; widespread use of a creative approach in educational practice; filling with creativity the subjects' educational space in educational activity (Zyazyun, 2008).

Recently, a certain «breakthrough» in the development of self-training (autonomy) of the individual has taken place in the professional education of future aviation specialists. Ukrainian post-psychological autodidactic shows that personal self-improvement as a complex education can be determined by numerous factors. The full coverage and transformation of these factors ensure the formation of a creative person capable of independent and responsible choice (Kurinsky, 2006).

In view of the above, there is reason to consider the educational activities of future aviation specialists as a space of self-creation, which provides the development of self-learning skills and creative adaptation to various organizational forms, such as: training sessions, independent work, amateur training, and autodidactic skills. This is the main way of emergence in the mind of the cadet of the goal of personal and professional improvement as a tool for transforming his own personality into the subject of self-creation. The power of authorship in personal and professional growth ultimately depends on the autodidactic skills of the cadet's personality. There is no and cannot be authorship outside of his creative constructive abilities, outside of interaction with the educational space.

It is known that autodidactic skills are as the state as the quality of the personality, which are aimed at effective constructing the educational space. To some extent autodidactic skills can be considered as the self-realization of creative abilities both in learning and in creating own authorship (Kurinsky, 2006). The cadet's autodidactic skills can be identified as «action is acceptance, action is dependence, action is possession and action are authorship». Educational activity is a space for the
manifestation of universal character in subjective abilities. It is a space for manifestation of an independent active operation of autodidactic knowledge aimed at achieving a specific goal. It is a space of awareness of the instrumental support for the creative, professional and personal self-improvement of the cadet. It creates a new indirect thought about himself, about his inner space, on the one hand, and on the other – about interaction with other subjects of educational activity, etc.

This representation at a qualitatively new level creates conditions for self-movement in educational activities, for personal and professional self-improvement. The movement of the cadet beyond his own space, beyond his own «I» and the acceptance of others as subjects capable of creative self-development contributes to the formation of a qualitatively new meta-individual position of the individual – creative interaction. Here subjects continuously share with each other the experience of «self-cultivation», and the experience of «amateur performance».

This contributes to the awareness of almost the only way to concretize somebody's own limitations, plausible ways to overcome it and create only the inherent individual (original) algorithm of self-transcendence. The meta-individual position of the cadet in educational activities is a dynamic process of interaction and design of individual capabilities and internal conditions – resources for professional and personal growth. Its essence revealed through the ability of the cadet as a subject of educational activity to provide a «golden proportion» (according to V. Petrovsky) between the internal aspirations of the individual and the external conditions for their implementation. It is possible provided a high level of development in cadets' independence (subjectivity) and competence (Piven, 2014).

Actually, the experience of cadet’s self-study is a long-term, dynamic, flexible and multi-vector process of creating a personal didactic arsenal for self-creation in educational activities. The results of the first stage of Scientific and Research Work No.012UK112109 indicate that the experience of self-creation gained by the cadet forms a certain «channel» of the most effective autodidactic techniques. These techniques stabilize the content of self-movement in educational activities, provide psychological unity of the internal state of the individual, correlates the individual capabilities and state of the cadet with the tasks facing him. V. Kurinsky notes in this regard: «Each development of approaches to a new exercise in material should become a school for improving autodidactic skill» (Kurinsky, 2006, s. 191).

The close relationship of the cadet's autonomous educational activity with all manifestations of his activity as an autodidact arises through the corresponding algorithm with particular expressiveness. The creation of algorithms and their application as a tool for the formation of self-learning skills contributes to the manufacturability of self-creation (Kurinsky, 2006). It is the algorithm of autonomous educational activity of the cadet that provides self-regulation of amateur activity and internal processes. Thanks to the algorithm, the cadet feels power over his abilities and features of the psyche, his own competence in self-organization of educational activity and self-creation. It is expedient and convincing to use the technology of Ukrainian post-psychological autodidactic in creating an algorithm of self-creation for the training activities of future aviation specialists according to the following scheme:

- morphologization of attempts in activity and self-creation;
- actualization of interests to self-movement in activity and sulfurization, self-motivation;
- concentration of autodidactic potential, construction of the image (model) of self-movement in activity and self-creation;
- objectification of self-movement in activity and self-creation, implementation and improvement of the self-movement model;
- self-management of activity and self-creation.

**Conclusions.** The ability of pilot cadets to self-creation depends on the established self-learning skills. The core of educational activities to form these skills for cadets should be the idea that can radically change their own lives, change themselves through competence. The key point is the ability of the individual to self-movement in this activity, potentially ready to design external capabilities and internal conditions – resources for professional and personal growth. Actually, the success of the cadet in professional training directly depends on his internal career as a person. This is the moment of his professional reliability formation. Therefore, declaring the ability to self-study, the cadet begins the process of identification with what he does, shows the ability to see himself as the bearer of what he can. We are talking about the ability of the cadet to be the subject in educational activities, to be the subject of self-improvement and self-creation, to be the one who constantly encourages development in himself. Actually, to be a competent in self-creation means to carry the phenomenon of development. Also, it means to be the subject of self-creation in educational activities, to develop the skill of fixing, reflecting and turning self-change into an arsenal of new experience of professional and personal self-development and self-leadership in the form of an «internal leader» (according to V. Kurinsky). At the same time, the autonomy of the cadet in educational activities is an important condition that provides a transformative effect on the individual and makes the process of professional and personal self-improvement meaningful, constructive and holistic.

**Prospects for further research.** As an urgent pedagogical problem, the formation of the self-creation competence of the pilot cadet’s personality requires additional empirical research, the development of a strategy for its phased formation, the creation of a model of the self-educational activity space in the conditions of distance learning in aviation educational establishments. After all, the competence of self-creation is not only the result, but also the prerequisite for creative amateur activity.

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