Initiation of Students' Intention and Creativity in Self-Developing Learning Technologies

Leyla Abduragimova[1][a], Abdulakhad Nyudyurmagomedov[2][b] andMaryam Savzikhanova[2][c]
[1]*North Caucasus Branch, Russian Law Academy of the Ministry of Justice of Makhachkala, Dagestan, Russia*
[2]*Dagestan State University, Makhachkala, Dagestan, Russia*
lisichka-85@list.ru, nudurmagomedov@mail.ru, savzihanova71@gmail.ru

Keywords: Intention, Creativity, Initiation interactive technologies, Meaning-creating technologies.

Abstract: The article describes the features of the organization of interactive educational technologies using meaning-creating educational tasks. Under experimental conditions, it is proved that the productivity of such technologies can be significantly increased if they use meaning-creating tasks that stimulate the intention and creativity of students. Intention is considered as the basic energy potential of any person, and creativity as a property that requires purposeful development in the learning process. The mechanisms of initiation of active cognitive actions are revealed in the conditions of interactive technologies with the use of stimulating meaning-creating tasks and the exchange of the teacher's intention and the meanings of students. The results of the study show that the mechanisms proposed by the author for initiating the intention and creativity of students allow creating an open and dialogical environment at the university, in which students can freely express their thoughts, ideas and meanings of the studied scientific knowledge.

1 INTRODUCTION

In modern conditions, society's requirements for professional education are increasing in the training of specialists with activity, initiative, efficiency and creativity of mental actions, independence and responsibility for the results of their work. However, modern vocational education is focused on introducing students to fundamental scientific knowledge and skills and their practical application in simulated situations of professional activity. Researchers believe that the modern educational process is still not focused on non-linearity, although today the necessary tools and conditions have appeared for this (Grigor'ev, Valeev, Musin, 2021). In this regard, the development of students' initiative as an integral manifestation of such properties as the ability to see a problem, develop solutions and promptly implement them in the process of active activity, offer original ways to solve problems (Tigrova, 2016) becomes a priority task of the educational process in higher education. At the same time, the principle of developing interaction of students with stimulating actions of teachers, with information from different sources, among themselves and the implementation of intentions in project activities becomes the main trend in the development of modern education (Nyudyurmagomedov, Savzihanova, Abduragimova, 2019).

In pedagogical research, different scientific positions can be distinguished regarding the interrelationships between initiative and creativity of students, interactivity of the educational process and intellectual development of students as future mobile and competitive specialists. So in the study A.A.Bechter et al., initiative is associated with a constant level of creativity of students. In this regard, maladaptive, reactive and active students are singled out, adequately to their natural resources and offer individual trainings to increase reactivity, develop reflexivity and predict their cognitive actions (Bekhter, Gagarin, Filatova, 2021). The productivity of the proposed technology is questionable, since the

[a] https://orcid.org/0009-0001-0998-8284
[b] https://orcid.org/0000-0002-0674-6626
[c] https://orcid.org/0000-0003-3641-2819

initiative cannot be created in one place and transferred to the cognitive process, it arises and develops in the educational process in connection with the study of knowledge and methods of their analysis. In this regard, the empirically obtained results of the study of M. Laguna, E. Purk on the relationship between five (extroversion compliance, conscientiousness, openness to experience and neuroticism) personality traits of students and the initiation of learning are of great interest. They found that among the five personality traits of students and young professionals, only greater openness to experience has a stronger effect on the initiative of educational actions, especially at the initial stage of training (Laguna, Purk, 2016). These results are confirmed in other similar studies. So N. N. Mironenkova et al. the role of semantic choice as the first moment of meaning formation, allowing the learner to go beyond his knowledge, to see the alternative properties of the studied phenomena and knowledge to find his personal meaning, was substantiated (Mironenkova, Abakumova, 2021). In the study of V.Ya.Stupakov, it was found that the method of creating contradictory and uncertain learning situations at the beginning of the study of knowledge is a highly productive means of initiating the meaning formation of students (Stupakov, 2007). There is also a position in which it is proposed to include intellectual virtues in education that allow for the interaction of technologies with human consciousness and cognition (SHipovalova, Gallyamov, 2022), which allows students to participate in the scientific knowledge being studied.

Another factor influencing a person's initiative is considered creativity as the ability to mental transformations based on sensitive perception, originality, adaptability and flexibility of thought (Surovceva, 2011). Thus, after analyzing the problem of creativity in foreign scientific research, O.G.Zakharova comes to the conclusion that scientists consider creativity as artistic skill, as a sign of giftedness, as a creative potential that is inherent in every person, including cognitive need, thresholds for responding to novelty and non-standard situations (Zaharova, O. G., 2017). At the same time, it should be borne in mind that creativity is considered both as the natural potential of some people and as a result of the long-term development of these manifestations in cognitive activity. And since education is a massive process for all people, they mainly consider creativity as a property that is possible for everyone to develop by stimulating the mobility of the thoughts of the trainees. In V.A.Kurina's research, creativity differs from imagination by linking it to the technology of the cognition process. She believes that creativity consists in the ability to create new properties from existing elements, it is not always an innate property or a formed ability, but needs purposeful development with the help of specially organized educational technologies (Kurina, 2015).

Another significant factor in initiating students is intention. Due to the uncertainty of the role of intention in initiating students to active cognitive actions, an intent analysis of more than two hundred publications on the Internet on interactivity of learning was carried out. The analysis showed that only 7% of them mention personal intention as an initiating factor of activity. Intention [lat. Intentio - aspiration] in philosophical and psychological research is considered as "a predisposition of consciousness specific to each person to a cognitive action or object" (Intenciya). The specificity of intention as a personality property is considered to be its existence as an internal potential inherent in any person at birth, which does not require special efforts from him to acquire (). In this regard, intention is associated with a person's ability to make a choice based on his inner existence (Brentano, F., 1874). However, intention is not only an actual internal state of the personality, but also manifests itself in the form of spontaneous thoughts and bodily elements (Laguna, Purk, 2016), which cause unexpected, unpredictable and specific behavior and openness of students to everything new. The theoretical analysis shows that the initiation of active thoughts and actions of students in the educational process in modern conditions of knowledge education becomes an urgent problem of the transformation of the educational process in higher education. However, initiative and creativity are not always naturally given properties, qualities, abilities of individual students, and with stimulation, support and targeted training in interactive and meaning-creating pedagogical technologies, each student can be developed. In this regard, the purpose of the article is to identify the mechanisms of initiation of intention and creativity, leading to the openness of students' own thoughts and meanings to the studied phenomena and knowledge about them.

2 MATERIALS AND METHODS

A set of analytical and empirical methods was used in the course of the study. The theoretical analysis of the results of previous studies allowed us to develop a

model for initiating students' openness to perception and understanding of the phenomena of the world through stimulating educational tasks. The content analysis of well-known studies allowed us to determine the relevance of the problem of initiating the intention and creativity of students for modern higher education. Testing of more than 150 teachers and 300 students at five universities of the Republic of Dagestan revealed the state of response of educational practice to the problem of transforming the educational process into open interactive and meaning-creating pedagogical technologies. The development and experimental substantiation of interactive and meaning-creating technologies that allow creating an open debatable educational space through stimulating tasks and the exchange of knowledge and meanings allowed to identify the mechanisms of initiating the intention and creativity of students. The development and implementation of master classes and the "Best University Teacher" competition in the educational process revealed the great developing potential of technologies for initiating the openness of students' own thoughts, ideas and meanings in the knowledge studied, affecting the mobility of specialists.

3 RESULTS AND DISCUSSION

The study was conducted at the Center for Modern Educational Technologies of Dagestan State University. In the initial position, we assumed that the initiation of educational cognition can begin with stimulating and supporting the intention and creativity of students through special tasks with contradictions, variations, and uncertainty of the situation.

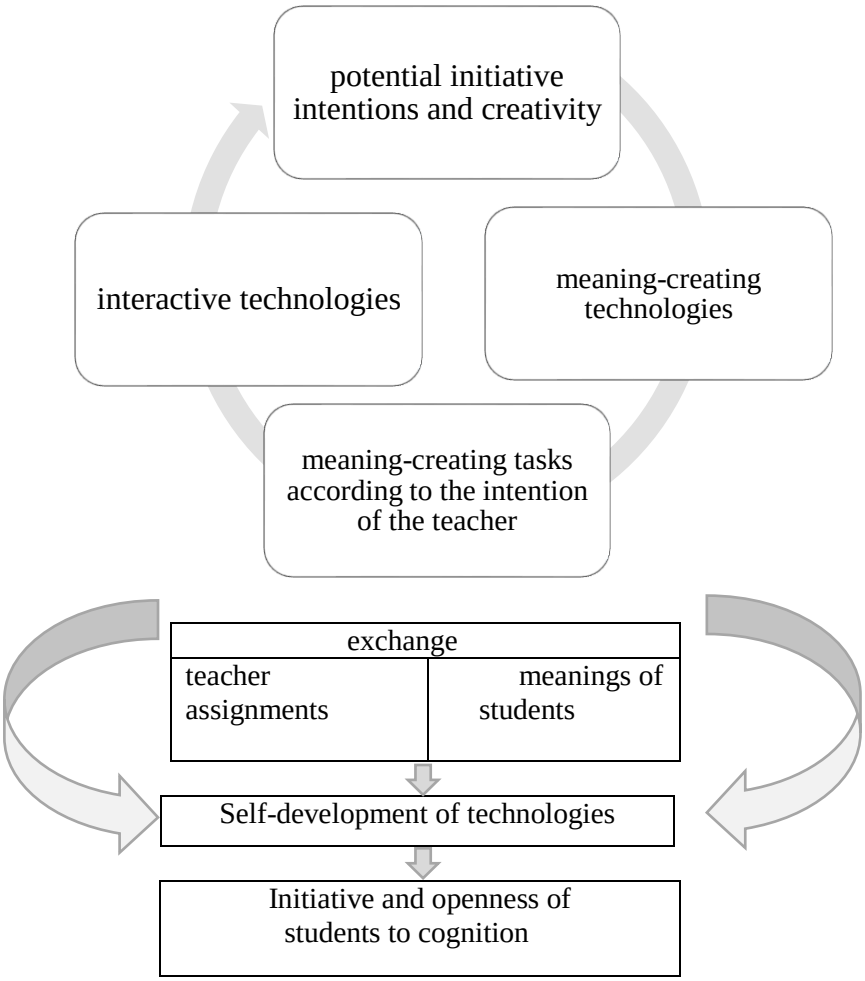

Figure 1: Model of initiation of students' openness to perception and understanding of the phenomena of the world through meaning-creating educational tasks.

These tasks, included in interactive and meaning-creating technologies, were supposed to create an open discussion educational environment in which students would create their own thoughts, ideas, meanings and projects. The theoretical analysis of well-known pedagogical research and the hypothesis put forward by us led to the following model of initiating the openness of students' thoughts and meanings to perception and understanding of the phenomena of the world through stimulating educational tasks (Fig.1).

The basis of the model is the potential of students' intention and creativity. At the same time, intention is considered as the basic potential of any person, and creativity as a property that requires purposeful development in the learning process. This development potential is included in interactive and meaning-creating technologies that allow students to stimulate active cognitive actions. However, educational practice shows that even in these technologies, the initiative of students is not always updated. To do this, it is necessary to expand the range of these technologies with special educational tasks with contradictions, variability of understanding, uncertainty of situations that should cause students to have doubts, objections, their own ideas and meanings. At the same time, there is not only the exchange of knowledge as in the traditional practice, but the teacher's intentions included in the tasks, and the students' initiative thoughts and meanings. The emerging flow of thoughts and their dialogue ensures both the development of the technologies themselves, as well as the initiative and openness of students to the perception, understanding and evaluation of the significance of the studied knowledge in their development.

These ideas required justification in experimental conditions for the development of appropriate educational technologies. To this end, we have developed an author's version of interactive technologies, taking into account the nature of interaction between the activities of the teacher and students, students with information from different sources, students among themselves and students' initiatives in creating their own projects. Organizational and stimulating technologies were tested in lecture classes using different ways of presenting knowledge, structuring knowledge, interaction of basic and auxiliary knowledge, presentation of teaching methods. Adequate choice of information, structuring of information, use of information to comment on knowledge are used in the technologies of supporting students' work with information by means of interaction. In the technologies of group interaction, attention was paid to the adequate distribution of roles, the joint creation of a new product, the competitiveness and criticism of opinions, mutual support and pressure on the negligent. In interactive project technologies, the skills of putting forward new ideas, self-organization, knowledge verification, presentation and protection of a new product were practiced. Taking into account these characteristics, during the research, more than two hundred new interactive technologies were developed and introduced into the educational process for various training courses. Videos of these technologies with methodological support are posted on the university's website and on the Youtube channel [csot.dgu].

Generalization of the results of the first stage of the experiment showed that interactive technologies are aimed at initiating and supporting active interaction of students with scientific knowledge offered in the content of education, but in reality students do not have a need to express their opinion and attitude to this knowledge, since they are considered truths that do not require doubt transformation and change. The initiative was stimulated in the field of knowledge variability or in the field of auxiliary knowledge and information to basic knowledge.

Cause-and-effect relationships between the verification of knowledge and the students' lack of confidence in the ability to express their attitude, thoughts and understanding of scientific knowledge were revealed during the testing of students who participated in the first series of the experiment. The test included such indicators as the presence of the author's intention in knowledge, the variability of knowledge, the possibility of developing knowledge, knowledge and their understanding, the meanings of students in knowledge, the interpretation of knowledge, knowledge and reflection. The test was developed in the form of forty statements, the answers were required in the form of "disagree", "agree" and "sure about it". This test was conducted at the beginning and after the experiment in the same random sample of students who participated in the experiment. The sampling rate was 1/3 in the volume of 136 people. For the convenience of comparison, the indicators at the beginning and end of the experiment are given in one table. Processing of the obtained materials led to the following results (Table 1).

Table 1: Dynamics of development of students' initiative in meaning-creating technologies.

Indicators	At the beginning of the experiment						After the experiment					
	I don't agree		I agree		Sure		I don't agree		I agree		Sure	
	Coeff.	%	Coeff.	%	Coeff.	%	Coeff.	%	Coeff.	%	Coeff.	%
the author's intention	66	48.5	46	33.8	24	17.6	36	26.5	58	42.6	42	30.9
variability	46	33.8	58	42.6	32	23.5	28	20.6	66	48.5	42	30.9
development	62	45.6	48	35.3	26	19.1	31	22.8	61	44.9	44	32.4
understanding	36	26.5	66	48.5	34	25	24	17.6	58	42.6	54	39.7
reflections	52	38.2	48	35.3	36	26.5	26	19.1	42	30.9	68	50.0
interpretations	58	42.6	54	39.7	24	17.6	24	17.6	54	39.7	58	42.6
meanings of	86	63.2	32	23.5	18	13.2	26	19.1	32	23.5	78	57.4
Average indicators	58	42.6	50	36.8	28	20.6	28	20.6	53	39.0	55	40.4

A comparative analysis of the data in the table at the beginning of the experiment shows that more than 40% of respondents do not see for themselves the possibility of changing knowledge in their own understanding. In particular, 63.2% of students do not allow the possibility of creating their own meanings in the studied scientific knowledge. The development of knowledge in the educational process is considered impossible by 45.6% of students.

In this regard, meaning-creating technologies have been developed and tested, in which conditions are purposefully created to stimulate and support students' and teachers' own meanings, thoughts and ideas in the same knowledge and ways of studying them, set out in the content of education (Nyudyurmagomedov, Isaev, Savzihanova, Abduragimova, 2021). The meaning-creating tasks according to the teacher's intention included: identification of the essence of concepts, comprehension of scientific collisions, justification of contractual knowledge, resolution of scientific and dialectical contradictions, semantic association of the text, different ways of understanding the world, search and comparison of variable knowledge, keyword method, supplement tasks, brainstorming, methodological and functional roles, individual and group projects. In the content of the tasks, the following were used: knowledge-acquaintance, implicit knowledge, knowledge-meaning, personal knowledge, knowledge-collision, knowledge-contradiction, integrative knowledge, knowledge-assumption, contractual knowledge, knowledge symbol, coded knowledge, knowledge-idea, knowledge-thought, etc. (Nyudyurmagomedov, Isaev, Savzihanova, Abduragimova, 2021). Each of these tasks contributed to the creation of such situations in which students showed their intention in the form of a desire to create their own thoughts, ideas and meanings in the knowledge being studied and understanding their significance in their own development. These technologies have contributed to a significant increase in the initiative of students, their involvement in the knowledge being studied and the openness of their thoughts and ideas.

This conclusion is based on the analysis of tabular data expressing the opinions of students after the experiment. So 79.4% of students expressed satisfaction with the conditions of the experiment,

which gave them the opportunity to freely express their initiative in the manifestation of their own thoughts, ideas and meanings in the studied scientific knowledge. The number of students who disagree with the possibility of showing their initiative in the study of scientific knowledge has halved (from 42.6% to 20.6%). The number of students who are confident in the need to show their initiative has doubled. The number of students who believed in the possibility of creating their own thoughts, meanings and assessments increased 4.3 times. These indicators corresponded to the qualitative analysis of the meaning-creating tasks performed by the students and the assessments by independent experts of the teachers' master classes at the "Best University Teacher" competition.

4 CONCLUSIONS

Thus, it can be concluded that the revealed natural connections of initiative, intention and creativity of students in meaning-creating technologies allow creating an open educational environment at the university in which students can freely express their thoughts, create their own meanings in the studied knowledge and can become mobile specialists.

REFERENCES

Grigor'ev, E., Valeev, A., Musin, S.H., 2021. Nelinejnyj obrazovatel'nyj process Tom 295. Mezhdunarodnyj nauchnyj forum po ustojchivomu razvitiyu i innovaciyam (WFSDI 2021).

Tigrova, I. V., 2016. Principy formirovaniya iniciativnosti studentov sredstvami proektnoj deyatel'nosti. Simvol nauki, №7-1

Nyudyurmagomedov, A.N., Savzihanova, M.A, Abduragimova, L.A., 2019. Mekhanizmy pedagogicheskogo vzaimodejstviya v interaktivnyh tekhnologiyah v vysshej shkole. Prepodavatel' 21 vek, № 4, chast' 1. pages 101-109

Bekhter, A.A., Gagarin, A.V., Filatova, O.A., 2021. Reaktivnoe i proaktivnoe sovladayushchee povedenie u rossijskih studentov pervogo goda obucheniya: diagnostika i vozmozhnosti razvitiya. *Vestnik Rossijskogo universiteta druzhby narodov*. Seriya: Psihologiya i pedagogika, T. 18. №1. pages 85-103.

Laguna, M., Purk, E., 2016. Lichnostnye kachestva i process iniciacii obucheniya: namerenie, planirovanie i nachalo dejstvij. *Organizacionnaya psihologiya* Tom 7.

Mironenkova, N. N., Abakumova, I. V., 2021. Refrejming kak didakticheskaya tekhnologiya iniciacii smyslovogo vybora. *Vestnik NGPU*, №3.

Stupakov, V.YA., 2007. situacii kak metod iniciacii smysloobrazovaniya v uchebnom processe: Avtoref. diss. … kand. psihol. nauk. Rostov-na-Donu: YUFU, 20 pages.

SHipovalova, L.V., Gallyamov, R.I., 2022. Intellektual'nye dobrodeteli v obrazovanii: vyzovy cifrovyh tekhnologij. *Vysshee obrazovanie v Rossii*, Tom 31, № 10.

Surovceva, N. A., 2011. Kreativnost' kak komponent uchebno-poznavatel'noj kompetencii shkol'nikov. *Nauchnye issledovaniya v obrazovanii*, №2.

Zaharova, O. G., 2017. Opredelenie ponyatiya «kreativnost'» v nauchnoj literature. Aspekty i tendencii pedagogicheskoj nauki: materialy II Mezhdunar. nauch. konf. Sankt-Peterburg: Svoe izdatel'stvo. pages15-17.

Kurina, V.A., 2015. Kreativnost' obuchayushchegosya kak universal'naya poznavatel'naya tvorcheskaya sposobnost'. *Vestn. Sam. gos. tekhn. un-ta. Ser. Psihologo-pedagogicheskie nauki*, №3 (27).

Intenciya. URL: https://obu4ayka.ru/obshhenie/__trashed-446.html.

Geneticheskaya pamyat' cheloveka: mif ili real'nost'. URL: https://donpi.ru/samorazvitie/geneticheskaya-pamyat-cheloveka-mif-ili-realnost.html.

Brentano, F., 1874. Psychology from an Empirical Standpoint, London: Routledge and Kegan Paul.

Mej, R., 1969. Intencional'nost'. URL: http://rumagic.com/ru_ zar/sci_ psychology/mey/3/j17.html

Nyudyurmagomedov, A.N., Isaev, Z.I., Savzihanova, M.A. Abduragimova, L.A., 2021. Smyslosozidayushchih obrazovanie: Monografiya. Pod.red. professora A.N. Nyudyurmagomedov Mahachkala: ALEF, 176 pages.