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FOREIGN LANGUAGE TEACHER'S PROFESSIONAL COMPETENCE IN FORMING FUTURE AGRARIANS' CREATIVE THINKING

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Summary

The article is devoted to a foreign language teacher's professional competence in forming future agrarian's creative thinking. It reveals the essence and the structure of future agrarians' creative thinking as an integrative unity of cognitive processes and individual intellectual skills, which determine flexibility, originality and productivity of professional task solving, have been elucidated. Its components (motivation-value, cognitive, activity-creative), indicators, levels and pedagogical conditions (development of intrinsic motivation on the basis of a dialogical approach, activation of independent creatively-exploratory educational work by means of problem-oriented teaching, providing creative cooperation among the subjects of a pedagogical process by using methods of interactive teaching), which enable effective forming the creative thinking in the process of professional training, have been defined. The methodology of sequential forming of future agrarians' creative thinking has been developed. The functional-structural model of forming future agrarian's creative thinking has been experimentally verified. The results have been confirmed by statistical changes in the levels of the creative thinking in the experimental group compared to the control one.

Keywords: theory of creativity, pedagogical conditions, interactive methods, dialogical approach, methodology.

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1. Introduction

According to the National Doctrine of Reforming the Education System of Ukraine in the 21st century, training of a comprehensively developed creative personality, a free, independent, initiative student with a high level of intellectual development and capable of non-standard solutions has been determined among the leading directions of updating the educational process. Therefore, creative thinking as a tool for achieving individual growth and professional success of each specialist acquires special importance in this process. After all, it is creative people who achieve significant results in the creation of material and spiritual goods.

The main role in forming the creative personality of a future agrarian belongs to a teacher. In this regard, one of the key tasks of professional training of the future scientific and pedagogical worker is the formation of a competent teacher with his own sovereignty, independent and creative, capable of independent continuous goal-setting and self-determination not only in the field of professional activity, but also in universal values. The professional competence of a foreign language teacher is characterised by linguistic, intercultural, communicative, linguamethodologic content and involves the transformation and interpretation of information, giving it a personal meaning, assessing the importance and efficiency of ideas, skills in discussing, defending one's own beliefs, forming the skills of correct formulation of opinions in a foreign

language. As a result, the definition of pedagogical conditions of forming students' creative thinking in the process of professional training acquires a priority character and is one of the major tasks of the modern paradigm of higher education.

The issues of developing the theory of creativity have been researched by H. Altshuller, M. Bakhtin, N. Berdiaiev, E. Bono, N. Karpenko, V. Moliako, O. Muzyka, O. Turynina, N. Khanetska, Yu. Chernozhuk, and others. In the system of agrarians' professional training the formation of a student's creative personality has been the subject of the researches conducted by O. Bida, O. Voloshyna, O. Dzhedzhula, R. Kravets, O. Kuchai, O. Levchuk, S. Litvinchuk and others. However, the study of scientific researches on the determined problem has shown that the issues of forming future agrarians' creative thinking have not been solved yet, in particular, the indicators, structure and specifics of its formation have not been sufficiently studied; pedagogical conditions that ensure the successful forming future agrarians' creative thinking have not been disclosed. At the same time, the analysis of theoretical-practical professional training of the future agrarians has revealed a number of contradictions, namely: between the need of agrarian higher education institutions in creative teachers capable of forming an initiative, independent, creative personality, the students' abilities in various types of educational activities and the insufficient level of a teacher's professional competence in forming future agrarians' creative thinking; between the traditional content of future agrarians' professional training with its tools (principles of building curricula, programmes, teaching technologies, etc.) and new tasks of reforming the educational sector (an individual approach, a focus on the personality's comprehensive development, addressing the needs its needs, ensuring the demand of society for competitive, creatively active specialists with a high level of adaptation to the rapidly changing requirements of the world labour market); between the need for the individual-creative nature of work and the excessively formalised training of future agrarians for their professional activity.

The relevance of the problem, its lack of development and certain contradictions have led to the choice of this research topic. The purpose of the research is to substantiate theoretically the pedagogical conditions of forming future agrarians' creative thinking and to reveal the role of a foreign language teacher's professional competence in this process.

In accordance with the purpose, the following research tasks have been defined:

1. Find out the state of development of the research problem, clarify the essence and structure of the concept of "an agrarian's creative thinking" on the basis of theoretical analysis of philosophical and psychological-pedagogical sources and empirical experience.
2. Determine the indicators and levels of future agrarians' creative thinking.
3. Scientifically substantiate and experimentally verify the pedagogical conditions and model which efficiently ensure forming future agrarians' creative thinking.
4. Improve the methodology of forming future agrarians' creative thinking.

To solve the set tasks the following research methods have been used: theoretical – analysis and synthesis, abstraction and concentration, generalisation, comparison, classification, induction and deduction, modelling (in order to determine pedagogical conditions and build a model of forming future agrarians' creative thinking); empirical – study and generalisation of work experience, software and regulatory documents; method of self-reporting, questionnaire, testing, conversation, observation, expert research methods (for clarifying values, needs, levels of knowledge, levels of creative thinking), pedagogical experiment; methods of mathematical processing (for obtaining and processing the results of the pedagogical experiment).

2. Theoretical bases of forming future agrarians' creative thinking

The analysis of the philosophical and psychological-pedagogical literature has illustrated that although there is still no unequivocal understanding of the nature of creative thinking in scientific theory and practice today and the search for its manifestations and new ways of forming it is constantly being carried out, everyone agrees with its substantive characteristics, in particular: speed, originality, flexibility, depth, non-triviality and ability to transform. The above mentioned makes it possible to consider the creative thinking of a future agrarian as an integrative unity of cognitive processes and intellectual abilities, which determines the flexibility, originality and productivity of thinking while mastering foreign language communicative competence and implementation of professional tasks.

The basis for determining the structure of creative thinking is made up by the philosophical views of H. Altshuller, M. Bakhtin, N. Berdiaiev, V. Moliako, E. Bono regarding the triad model of a personality, which is studied in philosophy: gnoseology (cognitive sphere), axiology (value-motivational sphere) and praxeology (behavioural-practical sphere). This has contributed to the determination of the structure of future agrarians' creative thinking according to the following components: motivation-value, cognitive, activity-creative.

At foreign language classes, the essence of the motivation-value component reveals itself in encouraging a personality's creative activity. The following indicators of the motivation-value component: interest in agricultural activity and a foreign language for specific purposes; motivation for self-improvement of communication skills; creative imagination in understanding artistic images; awareness of the self-worth of the human personality and the importance of the agrarian profession; self-assessment of their own educational activity have been singled out (*Altshuller, 2012; Bakhtin, 2013; Berdiaiev, 2013; Moliako 2006; Bono, 2016*).

The cognitive component of creative thinking consists of strategies for cognition of the world and accumulating the experience. Among the indicators of the cognitive component are the following: intellectual-creative initiative in different types of communicative activity; flexibility of thinking in new communicative situations; functioning on new speech materials and transition from one type of educational activity to another; ease of generating ideas in a foreign language; ability to transform phonetic, linguistic, lexical, grammatical and communicative tasks.

The activity-creative component reflects the nature and efficiency of educational activities in mastering foreign language knowledge and skills during the educational process. The indicators of the activity-creative component are the ability to perform vocational activities independently; ability to improvise, to talk about unfamiliar topics in a foreign language; ability to generate ideas in new, non-standard situations; originality of ideas and products of educational-creative activity, novelty of interpretations of English works; supra-situational cognitive activity (*Kravets, 2012*).

According to the defined structural components and indicators of creative thinking, three levels of future agrarians' creative thinking determined. They are imitation-reproductive, partially-creative, system-modelling.

The imitation-reproductive level is typical for students whose creative thinking is not detected or reveals itself at an unstable level. Such students have attitudes of indifference to a foreign language and creativity in professional activities; lack of needs for self-improvement of speech skills; poorly developed creative imagination. Awareness of the self-worth of the human person is characterised by an egocentric orientation. Students do not sufficiently understand the importance of the agrarian profession. Self-assessment of the results of their educational activities is not adequate. There are difficulties in generating ideas in a foreign language. There

is no autonomy in using lexical and grammatical units in new contexts. Professional competence is the reproduction of fundamental agrarian knowledge, skills and abilities. An ability to transfer skills to other activities independently is not developed enough.

The partially-creative level indicates a certain formation of creative thinking at the personal level. Students show positive attitudes to the agrarian profession and a foreign language, their motivational sphere is made up of internal and external factors. Their creative imagination fragmentary reveals, that tends to be compared with already known analogies. Normative-value orientation has been formed. There are also attempts to self-assess their own educational activities. Intellectual-creative initiative and flexibility of thinking in the implementation of educational tasks are partially demonstrated. Students situationally generate original ideas in a foreign language, improve and expand speech patterns, improvise in the communicational process on unfamiliar topics. Sometimes they interpret authentic English works independently.

The system-modelling level is characterised by a creative-value orientation, a stable positively active attitude to the agrarian profession and a foreign language. Students show an interest in foreign language and agricultural activities at a stable high level. At foreign language classes, future agrarians demonstrate the formed motivation for self-improvement of reading, speaking, writing, listening comprehension and speech skills. Their professional-creative imagination and adequate self-assessment of their own educational activities are developed. Students are able to set tasks, analyse and solve them autonomously. The internal structure of the situation is clearly understood and the problem is revealed (without external incentives). The goal is determined personally, the activity is aimed at achieving it and is organized by students independently. There is a high level of divergent thinking that allows considering the problem in a versatile way.

3. Methodology of forming future agrarians' creative thinking

The results obtained during the pedagogical experiment have provided improving the methodology of forming future agrarians' creative thinking and pointed out at the possibility of carrying out a purposeful influence of the determined pedagogical conditions on forming this quality in the process of professional training: development of intrinsic motivation on the basis of a dialogical approach, activation of independent creatively-exploratory educational work by means of problem-oriented teaching, providing creative cooperation among the subjects of a pedagogical process by using interactive teaching methods.

It has been proved that creative intrinsic motivation on the basis of a dialogical approach provides the future agrarians' educational activities with a stable creative orientation. Creatively motivated students work more intensively at classes, learn more thoroughly and are able to improve their professional competencies independently. They are guided by the desire to acquire knowledge, learning becomes more motivated, because it helps future agrarians to self-actualise and assert themselves in the process of professional training (*Turygina, 2007; Khanetska, 2010; Chernozhuk, 2010*).

The dialogical approach in the educational process of a foreign language teaching involves forming foreign-language speech skills, mastering the means of communication (phonetic, lexical, grammatical), nurturing readiness for self-expression and perception of another view, comprehension of it, discussion in a constructive conversation. Development of students' creative motivation, their feelings, thinking, capacities for avoiding conformism and blind imitation of other people's judgments, the lack of an unequivocal unified possible answer,

since each student has the right to his/her own motivated position, is one more positive outcome of implementing the dialogical approach (*Voloshyna, 2022*).

In the research process, it has been found out that activation of future agrarians' independent creatively-exploratory educational work is ensured by using problem-oriented teaching methods, that is the driving force for forming students' creative thinking in the process of cognitive activity, since the assimilation of systematised knowledge and the formation of students' abilities and interests occurs due to the emergence of dialectical contradictions. Problem-oriented teaching has been used to outline topics of the problematic situations preceded the explanation of the material that students should learn; have a high level of complexity, but are available for solving by the student; arouse interest in its content, and, accordingly, the student's need to solve it; contribute to the student's acquisition of new knowledge, moving forward in educational activities. The proposed problematic situations have been accessible to the students, focused on the sufficiency of knowledge and skills, their cognitive capabilities (*Voloshyna, 2021*).

This approach has ensured the creative assimilation of knowledge and methods of activity, in particular: independent transfer of speech knowledge and skills to a new communicative situation; perception of new problems in various situations of social, academic and professional communication in a foreign language for specific purposes; vision of the structure of the educational material to be studied; awareness of a new function of a foreign language and its structural units (phonetic, lexical, grammatical); the ability to disclose implicit information, determine an alternative for the solution, the ability to combine previously known methods of solution in a new way; the ability to create an original method of solution with others already known, demonstrating fluency in the techniques of structural construction of the text, means of connectivity and integrity.

Substantiating the pedagogical condition for providing creative cooperation among the subjects of a pedagogical process by using interactive teaching methods, it has been concluded that creative interaction is a mutually productive cooperation and an emotional contact between the teacher and students in the educational process, which enable creating a favourable psychological atmosphere, provide opportunities for the education of a creative comprehensively developed personality. A characteristic peculiarity of creative cooperation is the co-creation of the teacher and students, during which the foreign language teacher shows sincere interest in the results of future agrarians' work aimed at mastering the foreign language and culture of the English-speaking world.

An important role in ensuring creative cooperation is played by interactive teaching methods, based on the principle of constant active interaction of all students and focused on forming communicative, linguistic and sociocultural competencies. They raise the educational process to a qualitatively new level – mutual learning (collective, group learning in cooperation), where the student and the teacher are equal subjects of education. Thus, a foreign language teacher acts as a facilitator of learning, and students freely reflect on how they know the syntactic, semantic, phonetic rules and patterns of a foreign language, demonstrate all types of speech activities (reading, writing, speaking, listening), use sociocultural knowledge and skills in foreign language communication, use cultural information in professional activities, are able to improve their speech training using authentic English materials, show their own experience of mastering foreign language for agrarian purposes. The main methods of interactive learning in the process of establishing creative interaction are relationships between students, their cooperation and co-creation (*Bida, 2021; Litvinchuk, 2020*). Students take mutual responsibility for learning outcomes, and learning becomes interesting and at the same time effective, since

it occurs in a microclimate favourable for creativity. Work in small groups, work in pairs, simulation and role-playing games, creative projects, modelling, brainstorming, “microphone”, “aquarium”, “circle of ideas”, talk shows, debates and other types of discussions have been organised as key tools of implementing this pedagogical condition.

4. Experimental work on forming future agrarians’ creative thinking

A low level of future agrarians’ creative thinking has stimulated us to organise proper pedagogical conditions at foreign language for specific purposes and business foreign language classes. These pedagogical conditions have made possible developing the special course “Bases of forming future agrarian’s creative thinking in the process of professional training”. Its introduction involves a number of sequential stages: motivational-organisational, cognitive-active, autonomous-creative. The assimilation of educational material by future agrarians has taken place consistently, moving from a lower level to a higher one. Schematically, the process of forming future agrarians’ creative thinking is presented in Fig. 1.

The purpose of the motivational-organisational stage is the development of intrinsic creative motivation and value orientations of training; forming future agrarians’ clear ideas about the essence of creative thinking; awakening of their intellectual-creative initiative in various types of communicative activity; ensuring the emotional sustainability and awareness of the importance of creative thinking for achieving their professional excellence. At this stage as optimal teaching methods we have chosen discussions, didactic business, simulation and role-playing games, interactive lectures, CFI “On the Creative Wave” (Club of the Funny and Inventive). To present the theoretical part of the special course we have used lectures, which include such varieties as: problem-solving lecture, lecture-dialogue, lecture-visualisation, lecture-discussion, lecture-demonstration, binary lecture, lecture-consultation, and lecture with pre-planned mistakes (*Karpenko, 2016*). In order to ensure the sustainability of independent creative-search activities during the educational process, creative interaction, approval and creative activity at practical classes we have used interactive tasks and a set of exercises which are conducted on the “round table” principle, namely “Greetings”, “What is there in my name?”, “Let me introduce myself”, “Share your experienced with a friend”, “Vision of a future perspective”, “Find a pair”, “Transformation”, “Anti-criticism”, etc.

At the cognitive-active stage of the formative experiment, further improvement of the indicators of the motivation-value of creative thinking (interest in agricultural activities, the English language and educational process, creative motivation, improvement of communication skills, the personality’s value orientations, creative imagination in solving problems, sensitivity in the search for problems) and expanding the boundaries of the efficiency of the cognitive component (intellectual-creative initiative in various types of educational activities, flexibility of thinking, ease of generating ideas, ability to transform, speed of speech, divergent and originality of thinking) take place. Although at this stage, special methods of training succeed in intensifying future agrarians’ independent creative-search activities, but still the teacher partially acts as the head and consultant of students who are already complicit in the educational process, that is, subjects of educational activities, showing much activity in research activities. The efficiency of the use of such teaching methods as: talk shows, “round tables”, training “Painting pictures”, training “Bases of creative writing”, “literary-artistic creativity”, “brainstorming”, “uncompleted sentences”, language portfolio has been proved (*Dzhedzhula, Levchuk, Kravets, 2021; Bono, 2016*).

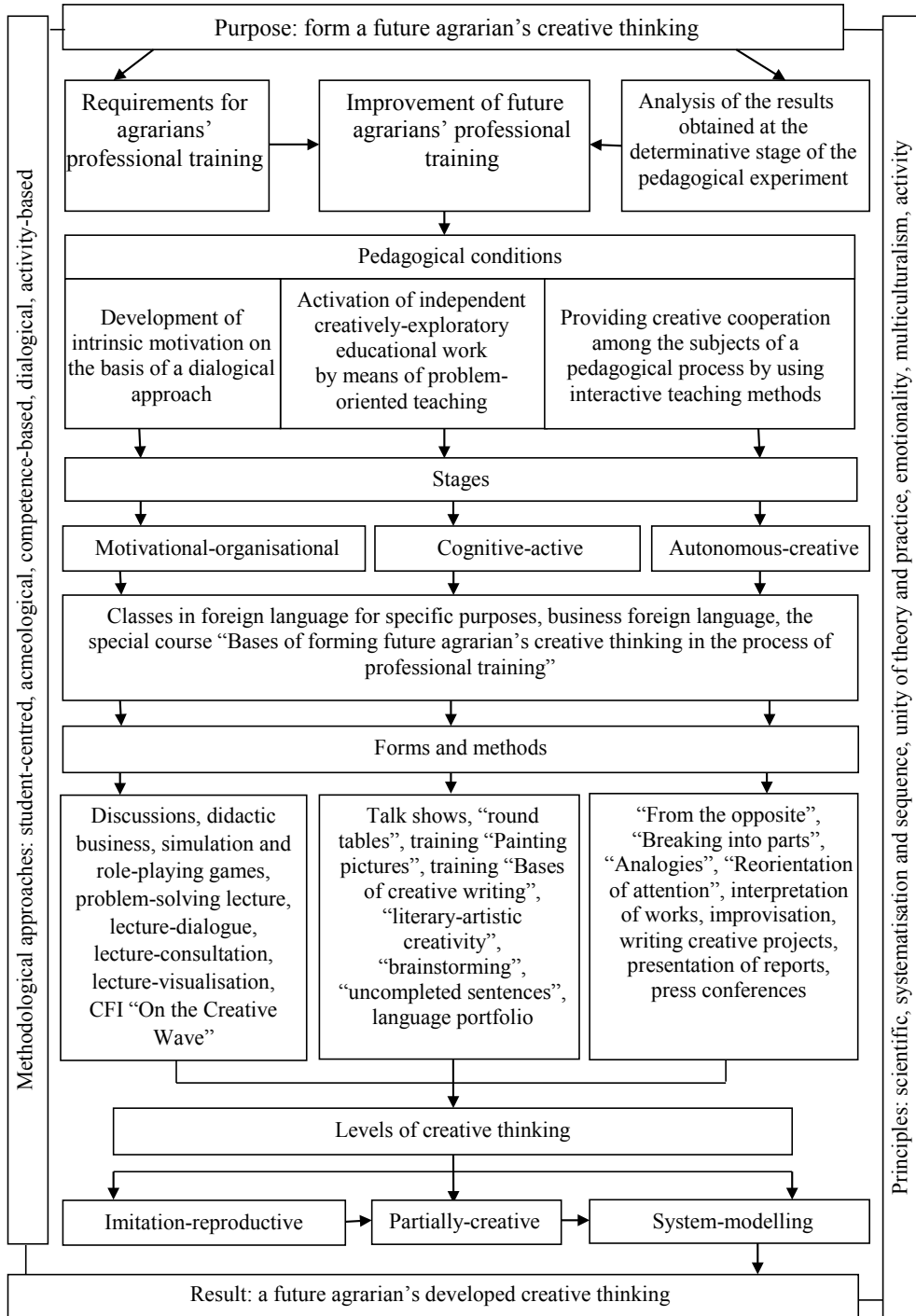


Fig. 1. Model of forming future agrarians' creative thinking

The priority tasks of the autonomous-creative stage are the formation of students' ability to apply the acquired range of knowledge, skills and abilities in practical activities. It has provided for training future agrarians to demonstrate complete independence in formulating creative problems, identifying problems and finding effective ways to solve them. Thus, future agrarians have to show the highest levels of motivation-value and cognitive components of creative thinking. It has been determined that the following methods of intensification of educational-cognitive activities contributed to the implementation of this task: joint discussion of the content, lingua-cultural conversations, modelling of situations, design of creative projects, participation in presentations of their own literary-artistic creativity, speeches and abstracts at conferences. Students have been involved in professional creativity, which is close to their future agricultural activities.

Verifying the efficiency of the proposed methodology during the experimental test, it was has been determined that ensuring certain pedagogical conditions allows to have a positive impact on the level of future agrarians' creative thinking. This has been confirmed by the results of the diagnostics at the beginning of the formative stage of the pedagogical experiment and at its end.

At the beginning of the experiment, 9 (8.8%) students had the system-modelling level of creative thinking, 37 (36.3%) – the partially-creative level, 56 (54.9%) – the imitation-reproductive level, and at the end of the experiment 42 (41.2%) students demonstrated the system- modelling level, 46 (45.1%) – the partially-creative level, 14 (13.7%) – the imitation-reproductive level. Such results give grounds for concluding that the proposed working hypothesis was confirmed with a statistically significant difference (Student's t-criterion, Fisher's F-criterion). Table 1 shows the general dynamics of statistical characteristics of future agrarians' creative thinking at the beginning and at the end of the experiment.

Table 1

Dynamics of forming future agrarians' creative thinking

Level	Control group		Experimental group	
	At the beginning of the experiment	At the end of the experiment	At the beginning of the experiment	At the end of the experiment
System-modelling	10 (9.2%)	15 (13.8)	9 (8.8%)	42 (41.2%)
Partially-creative	39 (35.8%)	46 (42.2)	37 (36.3%)	46 (45.1%)
Imitation-reproductive	60 (55%)	48 (44%)	56 (54.9%)	14 (13.7%)

At the end of the experiment, almost all participants of the experimental group increased the level of their knowledge, mastered the practical skills of organising creative activity, realised the importance of foreign language classes in the training creative, comprehensively developed youth, understood the importance of creative thinking for a future agrarian's professional formation.

On the whole, the conducted research confirmed the offered work hypothesis about the positive impact of the organised pedagogical conditions and the developed model of pedagogical support on the process of forming future agrarians' creative thinking.

5. Conclusions

A foreign language teacher's professional competence plays a significant role in forming future agrarians' creative thinking, which is a unity of theoretical and practical readiness to perform pedagogical activities aimed at developing the student's creative personality. Professional competence involves knowledge of methodological principles and categories of creative pedagogy; patterns of socialisation and development of the creative personality: essence, goals and innovative pedagogical technologies; laws of age-related anatomy-physiological and mental development of students. Psychological, pedagogical and special knowledge is a necessary but insufficient condition for a foreign language teacher's professional competence. Forming future agrarians' creative thinking is provided by skills and abilities, the prerequisite of which is knowledge of theoretical, practical and methodological support for the development of the creative personality.

In the current conditions, future agrarians are required not only to acquire thoroughly professional knowledge about the principles of functioning of agricultural machinery and modern production, the basics of work in the laboratory, awareness of soil species, stages of plant growth and development, but also a high level of creative thinking, which we consider as an integrative unity of cognitive processes and intellectual abilities, which determines flexibility, originality and productivity of thinking during implementation of professional tasks and mastering foreign-language communicative competence.

The work of a modern agronomist is quite interesting, and creative, since each season is not similar to the previous one and always involves experiments with the soil processing system and the choice of varieties, etc. The formation of creative thinking is the basis for a future agrarian's successful development. Creative thinking is the main structural unit of professional activity, a tool and a way to solve original and complex problems. The agrarian's creative thinking reveals itself in an innovative approach to agricultural activities.

Taking into consideration to the results obtained at the determinative stage of the pedagogical experiment, the imitation-reproductive level was diagnosed in most of the students. It showed that the generally accepted traditional content of higher education is not fully aimed at training highly creative personalities, and therefore creative thinking cannot be formed spontaneously. Consequently, there was a need to develop and use special methods, techniques, forms and tools of training which would contribute to improving the characteristics of creative thinking.

The outcomes of the analysis of scientific literature and the practice of professional training of future agrarians made it possible to substantiate the pedagogical conditions of forming future agrarians' creative thinking: development of intrinsic motivation on the basis of a dialogical approach, activation of independent creatively-exploratory educational work by means of problem-oriented teaching, providing creative cooperation among the subjects of a pedagogical process by using methods of interactive teaching. It was proved that their implementation increased the level of future agrarians' creative thinking. In the course of experimental work, the model of forming future agrarians' creative thinking was developed and verified.

Experimental verification of the efficiency of the proposed model of forming future agrarians' creative thinking confirms that the realisation of the selected pedagogical conditions makes a positive impact on the level of future agrarians' creative thinking. That was evidenced by diagnostic data before the formative stage of the pedagogical experiment and after it. At the control stage of the formative experiment, according to the results of experimental work, it

was found out that the number of the EG students who reached the system-modelling level increased by 32.4% (from 8.8% to 41.2%), and in the control group – only by 4,6% (from 9.2% to 13.6%); the number of students with the partially-creative level of the creative thinking increased by 8.8% (from 36.3% to 45,1%) in the EG and by 6.4% (from 35,8% to 42,2%) in the CG; the number of students with the imitation-reproductive level decreased by 41,2% (from 54,9% to 13,7%) in the EG and in the control group there was a slight decrease in such students – by 11% (from 55% to 44%)). Thus, the hypothesis is true. The validity of the results has been confirmed by Student's t-distribution test (*Zhluktenko, Nakonechnyi, & Savina, 2007; Barkovskiy, Barkovska, & Lopatin, 2010*).

The results of the pedagogical experiment prove that the goal has been achieved, the tasks have been implemented, and the developed methodology is effective in forming future agrarians' creative thinking.

Prospects for further research. The study we conducted does not cover all aspects of the problem of forming future agrarians' creative thinking. Promising areas of further research can be: clarifying the possibilities of applying innovative technologies in forming students' creative thinking, development of a methodology for pedagogical support of future agrarians' self-education in order to form their creative qualities.

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