

Continuity in the Formation of Design and Research Competence in Bachelor Students of Preschool Education in the Process of Studying Pedagogical and Methodical Disciplines

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Keywords: continuity, design and research competence, pedagogical and methodological disciplines

Abstract: The article considers the problem of the formation of design and research competence in bachelor students of preschool education. The purpose of the study is to justify the continuity in the formation of design and research competence of bachelors of preschool education in the process of teaching pedagogical and methodological disciplines. The authors rely on the following methodology to obtain reliable research results: methods of analyzing domestic and foreign literature, synthesis, modeling, generalization, pedagogical observation, questionnaires, analysis of students' creative activity. The results of the study confirm the assumption that the formation of the design and research competence of bachelor students could be successful if the continuity in its formation would be observed in the process of teaching pedagogical and methodological disciplines, as well as in the process of preparing for an integrated final state exam. The authors substantiate the continuity in the formation of the design and research competence in bachelor students and provide relevant recommendations for an integrated final state exam.

1. Introduction

Currently, in Russia, preschool education is a recognized stage in general education. This provision is confirmed by the release of the standard for preschool education on October 17, 2013, No. 1155. In this regard, the preparation of bachelor in preschool education is of particular value and relevance. Its uniqueness lies in the fact that students are preparing for professional activities today, will carry out it in the near future, and the results of their activities are aimed at creating a society of the Future. I. A. Kolesnikova defines, in strategic terms, the project as a step-by-step implementation of the image of the future [2]; and pedagogical design in Russia is interpreted as an independent multifunctional activity, one of the main functions of which is research. For the formation of design and research competence in the process of training bachelors of preschool education, psychological, pedagogical, and methodological disciplines are fundamental. However, in modern educational theory and practice, the experience of the successive formation of design and research competence in future teachers is not represented. In this regard, the proposed study is relevant.

The aim of the study is to substantiate the continuity of the formation of design and research competence of bachelors of preschool education in the process of teaching pedagogical and methodological disciplines.

2. Materials and Methods

The basis of the study are the competency-based (A. A. Verbitsky, O. M. Kolomiets, O. G. Rogovaya, and others), system-activity (V. A. Karakovsky, L. I. Novikova, A. N. Leontyev, S. L. Rubinstein, Yu. V. Senko, G. K. Selevko) and integrative (E. O. Galitskikh, L. Yu. Kruglova, V. V. Levchenko, etc.) approaches. O. G. Rogovaya and others note that the competency-based approach provides for the controlled formation of the professional and personal qualities of a specialist in the field of education, adequate to modern conditions, and allowing to effectively realize oneself in the professional field [3; 9; 10; 11]. Studies by E. O. Galitskikh, L. Yu. Kruglova, V. V. Levchenko actualize the idea of the integral essence of man and activity [1; 4; 5]. V.

V. Levchenko considers integration as a pedagogical category, manifested in education through many interconnected structural components of the pedagogical system [5].

To identify the continuity in the formation of design and research competence in the process of teaching psychological, pedagogical and methodological disciplines to bachelors, we used the methods of analysis of scientific and scientific-methodical literature on the topic of research, synthesis, modeling, practical pedagogical activity, generalization. Also, we conducted an ascertaining study by the method of questioning students of Bachelors of the direction "Pedagogical Education" ("Preschool education").

A. K. Oreshkina represents the continuity of the educational process as a process and the result of a consistent and systemic subordination of a student mastering educational programs [7]. In our case, the continuity process is the realization of the goals and content of the programs of pedagogical and methodological courses, taking into account the focus on the specifics of the professional activity of the kindergarten teacher, and the successive organization of design and research activities in the process of studying these disciplines.

According to the requirements of the federal state standard, the teacher must carry out activities for the design and implementation of the educational process at various levels of education. The study of pedagogical disciplines takes place at the first stages of professional training of bachelors of preschool education. The study is aimed at the the formation of general professional competencies, the development of ideas about the nature of pedagogical phenomena, the disclosure of the concepts of "pedagogical activity," "educational process," and other related pedagogical categories.

The formation of design and research competence in the early stages of the study of pedagogical disciplines is phased in nature. Its components can be various analytical, research, and reflective activities in the process of independent preparation and conduct of seminars, the implementation of specific educational and research tasks. Analysis of scientific literature, periodicals, and Internet resources, compiling supporting abstracts and presenting them at seminars, drawing up questions, organizing and conducting discussions, preparing presentations, and other creative assignments are a prerequisite for the formation of design and research competence at the initial stage of education. The development of ideas about pedagogy as a science of education and the methodology for conducting scientific research serves as the basis for the formation of the research competence of students, which will be further consolidated in the process of teaching practice.

The specific orientation of the training of future preschool teachers implies acquaintance at the first stages of the study of pedagogical disciplines with the concepts of "pedagogical task" and "pedagogical situation," as well as the contents of which must be disclosed based on specific examples from the practice of preschool education. Forms of project activities for disclosing the content of such situations, designing their solutions can be different. Among them, we would like to distinguish a few: individual projects on self-creation of examples of pedagogical situations, work in micro-groups to create, analyze and design solutions to the pedagogical situation with further protection of the results. In the pedagogy section "Theory of Education," preschool students can be offered the implementation of pedagogical projects related to their future professional activities.

The topics of such projects may be the development of scenarios for the holidays and other educational events for preschool children at different age stages. In the section "Learning Theory," future teachers get acquainted with the basics of organizing the learning process, its laws and principles, content, forms, methods, means and technologies of training. Students of preschool education, taking into account the specifics of their future activities, can be introduced to the features of the use of various educational technologies in a preschool educational institution (technology for problem-based learning, developmental learning, game technology, quest technology, etc.). In the pedagogy section "History of Education and Pedagogical Thought," students get acquainted with leading ideas, concepts and pedagogical systems in the main historical periods. The specifics of studying this course by students of preschool education can be reflected in an in-depth study of concepts and systems related to the upbringing of preschool children (for example, the concepts of M. Montessori, R. Steiner, K. N. Wentzel, etc.). Students' project activities can be represented by the creative work of applying the concepts of these authors in modern educational practice.

The study of methodological disciplines is aimed at the development of professional competencies and methodological knowledge and skills. Design and research activity is offered to students after studying

theoretical-methodological materials and allows us to switch from individual tasks on designing fragments of pedagogical activity to group projects that are more complex in terms of content and methodology. For example, as topics for individual projects, the following may be proposed: "Methods of organizing children's experimentation," "Methods of organizing and conducting outdoor games for a walk," etc. As topics for group projects, we offer projects for the organization and conduct of excursions, holidays, entertainment, or educational activities. Performing group projects (5-6 people), students discuss the problem, search for different aspects of the necessary information through individual mini-projects. Then, through an interactive discussion, they use it to design educational situations with children and perform a creative product, namely an abstract, excursions, and prepare to defend it.

Comparing results of project activities in the protection of creative work, students enrich each other with additional methodological information, methods of working with children, organizational ideas, and value orientations. To form a holistic view of students on professional-pedagogical activity and its different directions, one should organize collective and integrated projects. For example, a project on the topic "A system for monitoring the quality of environmental (or any other) education in kindergarten" covers the activities of the kindergarten to create organizational and pedagogical conditions for working with children. In this project, the entire student team discusses the problem and identifies areas of activity. The team is divided into micro-groups and distributes functions between individual groups, taking into account the practice-oriented content of the project. The following problematic questions are offered to help students: (1) What should be in the developing subject-spatial environment of a given age group (age for students to choose)? (2) Does the developing subject-spatial environment comply with the requirements of the standard and the program of preschool education? (3) Is there a dynamic throughout the year in the organization of the developing environment?

To implement the project, students actively use network interaction as a modern form of operational communication with each other. Such an organization of the project activities of bachelors contributes not only to the development of professional knowledge and skills but also to the development of the team as a subject of educational and professional activities. Moreover, such an organization of project activities creates motivation and prepares students to be implemented in a team of educators in a cohesive and creative manner, based on the individual characteristics of each.

The continuation of the formation and assessment of the level of development of design and research competence may be the preparation and conduct of the final state exam, which is integrated with nature. As project tasks for defense in the exam, we recommend the following project topics: "Organization of the spatial environment in kindergarten," "Model of a modern graduate of kindergarten," "My program for the development of the personality of a preschool child," "Program for the development of a collective of children in kindergarten," "Model of the modern kindergarten teacher," "My pedagogical credo," "The program of spiritual and moral education in kindergarten (and other areas of education)," "Inclusive education in kindergarten," "Solving the problem of psychological safety of preschool children in kindergarten," etc.

3. Results

1. The continuity of the design and research competence of bachelors in preschool education was tested in the process of teaching pedagogical disciplines and methodological discipline "Theories and technologies of environmental education of preschool children" in the 2016-2017 and 2017-2018 academic years. The testing was done by 23 full-time students and 136 students of the correspondence department of the direction "Pedagogical education" ("Preschool education"). The creative results of design and research activities of students were evaluated according to the criteria proposed by I. A. Kolesnikova and M. P. Gorchakova-Sibirskaya [2].

The analysis of students' creative work and the results of the rating assessment of their design and research activities showed that students successfully cope with the implementation of design tasks. Creative design and research activities contribute to the development of professional personal qualities of future teachers, as evidenced by their final grades in the disciplines, as well as answers to questions from the survey.

2. The effectiveness of the continuity of the formation of design and research competence was revealed by the method of questioning students after studying the discipline “Theories and technologies of environmental education of preschool children,” in which 158 students participated. Questions for the questionnaire are formulated by the authors of the article. As a result, the following results were obtained. 114 students (72%) answered affirmatively to the following question: "Have you had any experience in participating in educational projects before entering university?" Another question (“Do you think that the projects in pedagogical and methodological disciplines in which you participated were consistent in terms of content and organization?”) showed the following difference of opinion: 109 respondents (69%) answered affirmatively, 24 (15%) found it difficult to answer, and 25 (16%) expressed a negative opinion. The question "Do you consider your participation in projects for environmental education of preschool children successful, and if not, why?" showed the following results: 126 respondents (80%) answered affirmatively, 32 respondents (20%) expressed partial satisfaction, indicating personal reasons.

The answers to another question were diverse ("In your opinion, the development of what professional qualities and skills contributed to the organization of design and research activities in practical classes?"). In total, 63% of respondents indicated that they learned to design the educational process; 55% saw its different sides; 74% learned to design an educational developing subject-spatial environment for children; 58% saw the place and role of parents of children in the educational process and their involvement in solving joint problems; 83% noted the development of communication and team skills, 72% focused on the ability to discuss and discuss the issue under study, 95% selected and analyzed reliable information on the problem, 67% noted an ability to present the results of creativity, 78% noted the skills to evaluate the results of their and others' activities have developed.

3. The integrated model of the final state exam recommended by the authors has not been tested in preschool students. But over the course of 3 years, its successful implementation was carried out by the author of the article for students of the direction “Pedagogical Education” in the profiles "Foreign Languages” and “Education in the Field of a Foreign Language” [6]. Students preliminarily test the results of individual design and research activities in the process of undergraduate teaching practice and present at scientific and practical conferences. An integrated model of the final state exam can be used for students of other pedagogical profiles, taking into account the specifics of their future activities.

4. Discussion

As a result of the study, it became apparent that the motivation and quality of creative activity improve when the content of the taught disciplines reflects the specifics of the future activities of teachers in kindergarten. Continuous formation of experience in design and research activities allows bachelors to get involved in work faster, independently organize information retrieval and communication within the creative group, help each other in mastering the forms and methods of organizing project activities, independently coordinate their activities, see ways and directions of professional activity. Nevertheless, it should be noted that despite the pre-established criteria, the scientific nature of information retrieval has not always been up to standard. And at the intermediate stages of project implementation, we had to adjust the results of the information search, show the value of reliable results, teach the search for reliable scientific sources in Internet resources. This aspect of the activity requires the search for additional mechanisms in organizing the activities of bachelors.

Reflective analysis of the results of the survey allows us to draw some conclusions. First, despite the experience of participation in design and research activities and generally positive results, the students did not all respond positively to the question of succession, and this is an indicator that not all students were obvious about this aspect. Second, a positive assessment of the results of participation in projects proves a positive attitude of students to this successive form of organization of training. Third, the scatter of students' opinions on the formation of professional skills may be due to the fact that in the process of completing the questionnaire, it was difficult for some students to concentrate and see the versatility and integrity in the activities of the teacher.

5. Conclusion

The continuity of the goals and content of the programs of pedagogical and methodological courses, taking into account the focus on the specifics of the professional activity of the kindergarten teacher, increases motivation among bachelors. In the process of studying these disciplines, the continuous organization of design and research activities can increase the effectiveness of training sessions, accustom students to self-search and take the initiative, save study time, thereby allowing not only to master the content deeper but also practically simulate future pedagogical activity.

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