Modern Educational Programs for the Training of Preschool Teachers: Experience in the Implementation and Assessment of Educational Results of Students

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Abstract
The article discusses strategies how to change training of preschool educators in Russia because in many countries the importance and relevance of preschool education in the process of child development is recognized. It describes the changes in the approach of training of preschool educators. Authors highlight the specifics in design and implementation of preschool education bachelor's and master's training programs. The upgrade of teachers' training is aimed primarily at training's professionalization. The ways to change programs are the introduction of a modular principle of programs design, increasing students' practice classes, the process of assessing the results of their learning. The methods for assessing the competencies of future teachers of preschool educational organizations are presented. The most suitable method for the presented concept of education is solving pedagogical problems (or cases). Some examples of descriptors and tasks are given. The data of assessing the competencies of students are presented. There is an obvious gap between the results of the formation of various competencies. Some programs offered by the Institute of Childhood of Herzen State Pedagogical University of Russia are presented in the article. It is shown that the conceptual development of educational program's competence-based model plays now a crucial role.
Keywords: pedagogical education, bachelor's and master's training programs in preschool education, educator's professional standard, competence assessment.

Современные образовательные программы подготовки педагогов дошкольного образования: опыт реализации и оценки образовательных результатов

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Аннотация
В статье описаны стратегии изменений подготовки педагогов дошкольного образования в России. Выделены особенности проектирования и реализации образовательных программ подготовки бакалавров и магистров для системы дошкольного образования. В качестве ведущего направления модернизации образовательных программ выделена профессионализация подготовки кадров для системы дошкольного образования. Обсуждаются пути изменение образовательных программ: модульный принцип проектирования программы, увеличение объема практической подготовки студентов, процесс оценки образовательных результатов. Представлены методы оценки профессиональных компетенций будущих педагогов дошкольного образования. Решение педагогических ситуаций (профессиональных кейсов) рассматривается как ведущий метод оценки в рамках представленной концепции. Приводятся примеры заданий и индикаторы оценки компетенций. Представлены данные по результатам оценки сформированности компетенций. Выявлена разница в результатах формирования различных компетенций. В статье описаны программы подготовки педагогов дошкольного образования, реализуемые в институте детства РГПУ им. А.И. Герцена. В качестве основного вывода отмечается ведущая роль создания концептуальной компетентностной модели образовательной программы.
Ключевые слова: педагогическое образование, программы подготовки бакалавров и магистров для работы в сфере дошкольного образования, профессиональный стандарт педагога, оценка компетенций.

Introduction

The process of designing educational programs is rather complicated and requires understanding not only the current situation in education, but also the prospects for its development, understanding the characteristics of modern children and understanding the development trends of the methodology of their education and upbringing. Educational theorists and practitioners are preoccupied with finding effective ways to train future specialists and assess the effectiveness of changes made to programs.

Purpose and objectives of the study

In this article, we tried to describe what are the features of the design and implementation of educational programs focused on the training of such a teacher of preschool education and how to assess the results of the competencies development.

Literature review

Nowadays most countries attach a special importance to early education. International and Russian research has proven that investments into various educational stages certainly bring returns. Moreover, the highest return on investment was demonstrated by preschool education programs (Heckman, 2000). The level of preschool education to a significant degree determines the overall success of the entire education system. In this case a professional profile of preschool educators and how they were trained evidently play a major role. Several studies concluded that teachers' education and the way it was organized indeed impact educators' teaching efficiency and students' learning outcomes (Angrist & Lavy, 2001; Wayne & Youngs, 2003). None of the stages within the education system can be improved unless accompanied by developing and upgrading teachers' education.

Further improvement and development of teacher education shall ultimately start with identifying and resolving a number of existing challenges, namely:

- cohesion between requirements of educational and professional standards;

- the current state of affairs where tertiary education bodies offer teacher training programs that strongly rely on academic subject-based and reproductive type of education;

- induction into practice that is insufficient to prepare future educators to function professionally;

- a non-existing system of independent quality assessment of training received by future educators (Margolis, 2014; Margolis, 2019; Sobkin, 2010).

The current Russian model for training a preschool educator has come a long way. It started at the end of the 19th century when Fröbelian courses trained kindergarten teachers and family governesses. Now it has reached the format of continuous bachelor's to master's preschool education training.

Social, economic, informational, political and cross-cultural processes in Russia and worldwide dictate the need to update the model of preschool teacher training and to synchronize it with the values and goals of contemporary education (an objective to raise a proactive, independent, mobile, creative and tolerant individual) and its developmental trends (humanization, humanities, human-centered, activity-based, multivariance, continuity).

The overall upgrading of Russian general education – wherein preschool education is a part – also makes a sizable impact on changing the approaches to preschool educator training.

For the first time ever Russian Federal Act *On Education in the Russian Federation* defined the status of preschool education as a stage in the general education system. The status necessitates a new quality of preschool education and requires designing preschool education programs in accordance with the Federal State Educational Standard to support childhood diversity, to preserve its uniqueness and its intrinsic value, to ensure conditions promoting personal growth and humanistic adult-child interaction in special forms of childhood activities and child cultural practices.

The contemporary goal is to design a model of how to train an active, self-motivated, responsible and skilled preschool educator. The one who accepts, understands and helps children of early and preschool age to live through the intrinsically valuable period of childhood. Educators must be able:

• to continuously self-develop and to self-explore; to build one's own educational path and professional track;

• to interact and to communicate with children and members of their families;

• to study, understand and help children to live through specific children's activity types that have an intrinsic value;

• to provide psychological and pedagogical support that will ensure successful socialization of and person-centered approach to early age and preschool children;

• to create environment that would stimulate child's self-initiative;

• to design elements within educational programs and of early education settings;

• to construct space with objects that will stimulate child's development;

• to make arrangements for delivering child's education;

• to assist children with special educational needs.

Methodology

1. The Russian Federation adopted a professional standard for educators in 2013. This required implementing a set of measures to improve teachers' training quality by aligning parameters of their training with the educators' professional standard. Several studies have confirmed a positive and significant link between accredited educational programs (i.e. built on the assessment of their graduates against professional standard's requirements) and professional activity of these programs' graduates as well as with their learning outcomes (Margolis, 2015; Kleinhenz, 2007).

The Russian Federation Professional Standard for Educators established a system of general job functions to be executed by an educator at any level of the national general education (therein including preschool). These general job functions encompass job functions and job actions needed to deliver the above-mentioned functions along with the required knowledge and skills. The Standard also details specific job functions related to specific job actions of educators at different levels within the education system.

Under these circumstances the upgrade of teachers' training is aimed primarily at training's professionalization. It means building a model of practice-driven education where the key educational deliverable is teacher's ability to perform professionally as required by the norms developed by the professional community (Margolis, 2019). The scope of professional competences developed during tertiary studies must be aligned with the content of the professional standard and may be tested via an independent assessment of graduates' professional skills. The switch to the level-based standard for educators and a compatible model of job positions becomes the foundation to design relevant programs for bachelor, master and postgraduate studies.

2. This objective can be reached only if higher educational establishments change both the programs' content and their educational approaches. It requires changing the structure of the educational program. From now on programs shall be based on modules rather than subjects. Module is a holistic element of an educational program that offers students theory, practice and research. A training module is a relatively independent unit of an educational program focused at shaping a set of certain competences (i.e. learning outcomes). Modules are essentially characterized by an integration of theoretical and applied (practical) components of the educational content and are geared to match with current educational/professional activity of students as well as with future occupational duties of graduates (Gogoberidze, Ezopova, & Kalabina, 2018).

To illustrate the above we cite the content of the *Psychological and Pedagogical Expert Assessment of the Preschool Education Quality* module within master's program.

Module: Design and Psychological/Pedagogical Expert Assessment of the Learning Environment in a Preschool Educational Institution

Subjects	Elective Courses	Research	Practical Training
1. Psychology of pedagogical interaction 2. Design and expert assessment of psychologically comfortable and safe learning environment at a preschool institution 3. Expert assessment of psychological and pedagogical support to preschoolers' families	Psychological and pedagogical expert assessment of games and toys / Psychological and pedagogical expert assessment of media products for preschoolers	How to design mechanisms of psychological and pedagogical expert assessment of learning environment at a preschool	Expert assessment of arrangements that ensure child's comfort and safety at a preschool

Module-based program has a range of advantages. For instance, it allows to set up a library of modules (that becomes a foundation for designing new educational and professional improvement programs); to arrange a nonlinear teaching and learning process; to raise the bar for the faculty and to focus on team play; to be able to offer integrated final assignments that correspond to students' future job functions (Gogoberidze, 2017).

3. Ultimately the use of activity approach in educational programs becomes an essential feature of training future teachers. Practical training is among key tools to deliver learning outcomes. Several types of practical training (introductory, apprentice, internship) pursue a variety of objectives. They "ignite" student's interest in and appreciation of theoretical studies. They provide students with their first professional experience. They offer a way to accumulate practical experience by performing separate professional activities. They become a space for professional and social interaction between educational partner organizations. A significant portion of the program (25% and above) is delivered as practical training and research in an educational institution and supervised by an experienced mentoring teacher. Standards require that at least 10% of the faculty who implements the program shall be practicing preschool teachers.

4. Educational outcomes are defined as students' abilities and skills demonstrated once the module or the entire educational program are complete. Students perform assignments (products of their activity), demonstrate learning outcomes during training practice at preschool and execute case studies. The above tools are used to assess the maturity of their learning outcomes.

Results

Learning outcomes are benchmarked against objectives of professional activity and take into consideration a true level that students may reach in mastering an educational module. Module learning outcomes are aligned with learning outcomes of the entire program. The assessment of learning outcomes always involves preschool teachers. Russia does not have a licensing procedure for professional educators. Having a professional degree will be sufficient to work as a teacher. Therefore, the board of examiners who administer a graduation exam and preside over the defense of graduation thesis will include qualified representatives of preschool system who will judge the professional aptitude of graduates.

The process of mastering the programs involves the gradual formation of general, general professional (defined by the standard) and professional (defined by an exemplary educational program) competencies.

To assess the process of their formation and, ultimately, the readiness to implement professional actions in accordance with the formed competencies, it is important to understand what are their descriptors. Here is an example of a "decomposition" of one of the general professional competencies "Able to organize joint and individual educational and educational activities of students, including those with special educational needs, in accordance with the requirements of federal state educational standards":

• The "knowledge" descriptor assumes knowledge of the basics of the use of educational technologies (including in the conditions of an inclusive educational process), necessary for targeted work with various categories of students, including those with special educational needs; basic techniques and typology of technologies for individualization of education;

• The "skill" descriptor includes the ability to interact with other specialists within the framework of a psychological, medical and pedagogical council; correlate types of targeted assistance with the individual educational needs of students;

• The "capacity" descriptor presupposes the capacity to apply methods of identification of children with special educational needs (autists, children with attention deficit hyperactivity disorder, etc.); commitment to provide targeted assistance to students, the skills of organizing joint and individual educational and educational activities of students, including those with special educational needs, in accordance with the requirements of the Federal State Educational Standard).

According to the principle of practice-oriented education test assignments, united by a common pedagogical task, can act as a method of assessment. Possible types of assignments: assignments with multiple choice with different levels of difficulty, assignments for correspondence, assignments for establishing a sequence, assignments with a short text answer (word or number).

Let us give an example of such a task and one of the tasks aimed at assessing a capacity descriptor.

"Designing the organization of educational activities for a student with special needs, the teacher relied on the methods of educational technologies for the individualization of learning. At the same time, one of the main pedagogical conditions, which was observed by the teacher, was the formation of the student's adequate forms of interaction with peers with inclusion in the team. However, compliance with this condition did not give the desired result."

Choose the correct answers: The teacher's possession of certain skills to organize the individual learning activities of a student with special educational needs also influenced the success of his/her interaction with peers in the study group. Highlight the techniques that the teacher used:....

1. evaluation of the readiness of the study group for the student's transition to individual training;

2. choice, together with the student, and in accordance with his/her educational guidelines, an individual educational route;

3. correction of the educational route;

4. systematic notification of parents about learning outcomes;

5. demonstrative registration of the student's certification results;

6. regular meetings with the student, discussion of issues on the individual educational route.

A similar approach is used when assessing the formation of professional competencies. At the same time, it is important to offer students the situations that are closest to their future professional activities, therefore, video fragments are often used in such tasks. For example,

"Watch the video. What ways did the educator use to motivate children?

List these methods according to the groups:

1. Motivation by communication with an adult.

2. Motivation by the content and conditions of the organization of activities.

3. Motivation by the game.

4. Motivation by emotions and feelings.

What motivation methods were not involved in the lesson, why?"

Unlike the previous problem, when doing this task, the student must independently formulate the answer, justifying it.

In April 2021, at the Herzen State Pedagogical University of Russia a procedure for assessing the process of forming competencies was carried out. It should be noted that this approach was applied not only to future specialists in preschool education, but also to students planning pedagogical activities in other educational programs. Testing of the development of the general professional competence was carried out among the 2nd year students, and the professional competence among the 4th year students.

The average score of the development of the general professional competence is 72, and the professional competence - 92. This can be explained by a rather long competence developing process and some generalization of its formulation. In the 2nd year, the process of formation and awareness by the student of its display is still underway. Therefore, the descriptors (even for different competencies) are lower. Whereas the indicators of the development of professional competence and higher due to their purposeful development among students-future graduates, reliance on the former general and general professional competencies, the experience of professional tests among students, their higher readiness and awareness of their future activities.

In assessing of professional competence (as well as in general professional) the greatest (but not critical) difficulty was caused by the tasks to determine the descriptor "capacity". Nevertheless, students demonstrate the ability to analyze the context of the pedagogical situation, establish connections, draw conclusions, and propose alternative solutions.

A systematic assessment of the process of developing competencies allows not only to organize properly the educational process for teachers and university administration, but also to increase the awareness of students' learning and expand the possibilities of building an individual educational route.

Discussion

Programs offered by the Institute of Childhood of Herzen State Pedagogical University of Russia for training preschool teachers follow the above described design principles and implementation mechanisms. Bachelor's programs offer the content aimed at basic training that enables educators to achieve a variety of objectives pursued by the preschool education system. For instance, such programs as *Preschool Education, Child Psychology, and Preschool Education of Children with Special Educational Needs* to name a few.

Development and delivery of master programs is among priorities of the Institute of Childhood in its mission of training skilled preschool professionals. The design philosophy of master programs is determined by the multitude of professional tasks and activity types in the system of preschool education. As of today, the Institute has developed, successfully approved and now offers the following master programs for preschool educators' training:

- *Methodological Support in Preschool Education.* The program aims at training competent professionals with a competitive edge who will realize their professional potential in arranging the service of methodological support in preschool education.

- *Psychological and Pedagogical Expert Assessment of Preschool Education Quality.* The program aims at training quality assessment experts in early education. Initially the program was jointly developed and offered together with partner universities - Trnava University (Slovakia) and Maksim Tank Belorussian State Pedagogical University — as a master program named *Quality Assessment of Preschool Education.*

- *Management of Innovative Development of Preschool Educational Institutions.* The program aims at training competent professionals with a competitive edge who will realize their professional potential in promoting innovative development of preschool institutions. Similarly, the program was jointly developed with the faculty of Novosibirsk State Pedagogical University (Gogoberidze, Kalabina, Pogosian, & Savinova, 2018).

Conclusion

The article describes key avenues in upgrading educational programs as stimulated by professionalization of staff training for the preschool education system. This explains why conceptual development of educational program's competence-based model plays now a crucial role. Previously, curricula for educational programs could be reduced to set of subjects. These days the list of subjects for educational programs is secondary to the goal-setting for the learning process. Educational program design means to define graduates' vocational field and specifics and to determine skills, abilities and competences required of them. Only then it is appropriate to design necessary and sufficient training modules along with teaching technologies; the latter carries an equal importance.

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