Best Innovation Practices of Pedagogical Education Enhancement in the Kaliningrad Region

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Abstract. The objective of the article is to describe the practices of pedagogical education enhancement in the Kaliningrad region, Russia. The research method of the designated issue is the method of results analysis and modeling of development prospects, making it possible to transfer the positive experience of the Kaliningrad region to other regions. The article represents the strategies that the Institute of Education of the Immanuel Kant Baltic Federal University (Kaliningrad, Russia) applies to solve the main problems in the field of education: the lack of practical training of graduates of educational programs, the lack of an effective system of professional orientation, the discrepancy between teacher training and labour market needs, the graduates’ problem of joining the profession (low percentage of employment, lack of independent evaluation of the qualification obtained).

1. Introduction

The Kaliningrad region has traditionally become one of the pilot regions where complex measures of addressing the problems discussed in the framework of a working group of the Ministry of Science and Higher Education of the Russian Federation on the modernization of teacher education are introduced to further transfer the positive experience of the region into the practice of other region activity [1, 2, 3, 4, 5, 6, 7]. A new national project “Education” launched by the Ministry of Education bears a mission of the national education enhancement in terms of its content, infrastructure, teacher training, retraining and skills upgrading that inevitably will trigger innovative changes [1]. In the Kaliningrad region the function of a provider of innovations is performed by the Institute of Education of the Immanuel Kant Baltic Federal University (IKBFU). IKBFU is one of the leading educational, scientific, research, and cultural centres of Russia. The Institute of Education at IKBFU implements 36 Bachelor, Master's degree and Post-graduate programs in Linguistics, Pre-school, Primary, Secondary, Higher Education and Psychology. The objective of the Institute of Education is determined by its name—a transregional centre of developing new technologies and new contents of pedagogical education of the global level that forms the philosophy of education as a fundamental activity of the civilization.

Performing the role of one of the key stakeholders in developing a regional educational system, setting educational policy of the region and providing teacher training in the region, the Institute of Education is highly dedicated to solving education greatest challenges in the rapidly changing educational environment through collaboration with leading educational institutions at regional, federal and international level, through modeling training programs, research projects and strengthening strategic partnerships, holding conferences, seminars and workshops with highly qualified educators, representatives of professional community, the Ministry of Education of the Kaliningrad region as well as the Russian Academy of Education of the Russian Federation and the Russian Academy of Sciences of the Russian Federation.
2. The Resource Centres of the Institute of Education: A Scientific and Educational Cluster of the Region

The Institute of Education has developed a wide net of resource centres creating an educational and scientific cluster of the region maintaining the ecosystem balance of developing strategies and best implementation practices in the region. These are 13 leading institutions of pre-school, primary and secondary education of the region: gymnasiums, lyceums, schools, nursery schools, among them one upper secondary school of The Russian Academy of Sciences which received its status in 2019. In 2018 the Cooperation Agreement with The Russian Academy of Education was concluded and a special structural subdivision called the Baltic Scientific Centre was launched at the Institute of Education with the mission to conduct scientific and research activities on top priority problems of education.

The resource centres function as structural subdivisions of the University and in conjunction with structural subdivisions of the Ministry of education of the Kaliningrad region as well as municipal departments of the Kaliningrad system of education (towards the development of teachers and teacher trainers of the region). The resource centres of the Institute of Education implement the development programs of scientific and educational cluster that increase the in-service effectiveness of teacher trainers through improving forms and methods of teaching students, teachers, supervisors, tutors in accordance with professional community needs in the area of education. The priority areas of work of the resource centres of the Institute of Education are the following: joint projects in the area of pedagogical education; students’ projects with a view to improving and upgrading their professional competence abilities; designing and introducing modern methods and educational technologies; providing counseling support on career paths and vocational guidance. The resource centres are widely used as internship centres, in addition to them there are more than a hundred of educational institutions in Kaliningrad and the Kaliningrad region that the Institute of Education has internship contracts with to send students for hands-on training.

The resource centres provide authentic atmosphere of teaching support and multifunctional educational environment when our students work together, hands-on and on real projects under the supervision of experts and mentors from professional community (in-service teaching). The resource centres’ educators being representatives of employers function as providers of real tasks and goals for certain educational institutions. As a result, education is becoming more task-oriented and the Institute prepares specialists ready for future professional life.

Within the framework of collaboration “school—higher educational institution” the resource centres and the Institute of Education hold joint interactive educational events, lectures, practical classes, seminars for students and young teachers. Last year one of the joint launched projects was a career guidance project ‘The Atlas of Emerging Jobs’ developed by the Agency for Strategic Initiatives [8]. The Atlas, as it is called by experts of Moscow School of Management Skolkovo and Agency for Strategic Initiatives, is a vision of changes that may happen in the job market in the coming decades” [8, 9], “a kind of a beacon for young people mapping their career paths, helping them find a good way to invest their potential” [9]. The Institute of Education uses ‘The Atlas of Emerging Jobs’ as an educational simulator for teaching students of pedagogical areas to build and forecast the future professional world, aimed at professional competencies development in the area of vocational orientation. Its implementation gives our students a notion that a profession has ceased to be a set of fixed qualifications, but it has become a flexible set of competencies or a personal profile of competencies that provides professional mobility and professional reflection.

Students of the Institute of Education act as tutors while implementing career guidance games with 8, 9, 10-year pupils aged 15-17. Thus, students develop skills of psychological and pedagogical support for pupils as well as future profession counseling support.
‘The Atlas of Emerging Jobs’ is integrated into the system of vocational guidance work with secondary school children throughout the whole academic year. The implementation of the project serves to achieve the following goals:

- generating positive attitudes towards students’ own professional self-determination;
- understanding the aging process of a series of professional activities, or “endangered jobs” [9];
- developing a conception of designing educational, professional and career trajectories;
- developing the notion of constituent elements of students’ future career;
- developing the notion of the pace of changes in every sphere of the modern world, integration of new technologies into our life [10, 11];
- the necessity of developing reflective practitioner skills, necessary for the future, for example to see and understand key scientific, social, technological and economic processes, transforming the reality, preparing students for the demands of the future;
- developing a conception of such significant phenomenon for the generation of the future as “cross-professional skills” (working with people, working in a context of uncertainty, multilanguaging, multiculturalism). These skills are versatile and important for specialists in all spheres [9];
- motivating for “life-long education” [9, 12, 13]. This is the quality that a teacher should teach the students as this quality determines the teachers’ readiness for changes and mobility as well as creativity and responsibility to take decisions.
- evaluation and charting one’s own educational and professional trajectory in the context of potential risks and unforeseen circumstances.

There is a 5-year Roadmap for the period of 2019-2024 with the specialists of ‘The Atlas of Emerging Jobs’ expertise: joint projects on charting a professional and career trajectory and their presentation at the student conferences; students’ qualification papers presenting the results of implementing “Atlas of Emerging Jobs” project at schools in the Kaliningrad region; launching a joint project of vocation guidance games with parents as parents have a direct influence on their children’s professional choice, being active participants of a contemporary educational process and an integrative part of decision-making education community worldwide; integrating schools of the region into the project can set the stage for developing a regional career guidance system.

Thus, the cooperation of the Institute of Education and its resource centres is mutually beneficial as the cooperation provides active educational, scientific and research as well as practical collaboration of all participants of the educational process that increases the efficiency of the combined resources while pursuing the goal of development and professional teacher training updating in accordance with the society needs.

3. The Development of Optional Pedagogical Modules for Students of Non-Pedagogical Training Fields

At IKBFU not only students of pedagogical areas have an opportunity to acquire basic pedagogical competencies. Each curriculum in humanities and natural science cluster implements a pedagogical optional module. It is specially designed for students of non-pedagogical straining fields to be opted in order to raise the awareness of the significance of the profession of a teacher, to get acquainted with peculiarities of psychological and pedagogical interaction within educational contexts as well as with inclusive education in a modern world and practical aspects of teaching different subjects (depending on students’ training field: Maths, Physics, IT, Economics, Law, Foreign languages, National languages, Literature). Students are taught to apply modern techniques and educational technologies, evaluate students’ success, design lesson plans, analyze, design a subject syllabus, adapt and apply
experience of the leading educators, reflect on their own pedagogical experience in class under the supervision of teachers of the Institute of Education and its Resource Centres.

Getting acquainted with the teaching profession and acquiring skills of the future benefit in terms of professional and personal development and provides professional mobility throughout the career path.

4. The Unique Program of the Regional Project “A Teacher of the Future”

Another project aimed at attracting children to the profession of a teacher is a project “A Teacher of the Future” launched in the Kaliningrad region in 2018. The duration of the program is 2 years. The general objective is to provide a vocational guidance program for secondary school children and raise awareness of the teacher profession value as well as integrate secondary school children into professional culture via engaging them into university life. The unique program of the project “A Teacher of the Future” is implemented by university teachers at the Institute of Education together with the resource centres of the Institute and its partners. On successful completion of the program secondary school children get targeted training opportunities for entering pedagogical fields at IKBFU, contracts on hold with potential employers and acquire such modern world competencies as interpersonal communication, personal development, critical thinking, leadership, creativity and teamwork abilities. The completion of the program implies research work on the chosen topics which is carried out and presented together with university students (performing a role of a research advisor) at the conference. First experience of scientific work as well as further research as a student is aimed at developing life-long learning skills of teachers who are supposed not to be restricted by the subject area they teach but can provide students’ progress in fundamental sciences in accordance with the students’ needs and interests.

5. The Worldskills Movement As One of the Means of Improving the Quality of Teacher Training

In spring of 2019 the Kaliningrad region became a pilot region to launch a demonstration exam in accordance with WorldSkills Russia standards for students of higher education programs. The first experimental exam covered two competencies: competencies in ‘Pre-school education’ and ‘Primary school teaching’. The exam was conducted as an extra evaluation of the knowledge and practical skills of 3rd and 4th year Bachelor students of the Institute of Education. According to the WorldSkills Russia standard, the format of the exam assumed modeling and conditioning professional environment when students were to demonstrate their practical skills performing practical tasks that determine professional competence abilities of a pre-school teacher or a primary school teacher respectively. It implied the use of a system of methods that focused on the independent mastery of the students' knowledge and skills in the process of active mental and practical activity.

Participants were evaluated by independent regional, national and international experts, including the region’s key employers. In preparation for the exam the faculty of the Institute and professional community were trained under the Demonstration Exam Expert Program. The advantages of the WorldSkills exam have been pointed out by all participants of the exam. For educational institutions—it is an opportunity to evaluate the quality of educational programs, to assess the level of students' skills, to improve the content of education, to enhance the quality of training of pedagogical personnel; for graduates it is a chance to understand their mistakes and weaknesses, share experience with other participants, analyze and generalize theoretical material, enrich and systematize knowledge on the issues of teaching, raising children and organizing their development in a nursery school or school.

The Faculty of the Institute of Education who were involved in preparation for the exam underline the fact that holding the WorldSkills exam for the preparation of future teachers has become a motivating factor in the learning process as a whole as students felt the responsibility that has been
placed on them which stimulated studying the disciplines, increased interest in self-study and self-assessment of acquired knowledge and skills, self-improvement and professional self-development.

Close cooperation with professional community throughout the preparation period for the exam ensures conditioning the necessary competencies that satisfy the needs of employers in terms of mastering basic and additional types of professional activity and the national professional standards of teachers [14].

To sum up, trilateral cooperation can facilitate working out a mechanism to narrow a gap between theory and practice and ultimately preparing graduates that possess universal and professional competencies necessary for pedagogical activity, specialists who are ready to perform without on-site training, who show flexibility in changing conditions of the modern labour market.

6. Educational and Scientific Collaboration Through Educational Conferences and Scientific Events

Throughout the year the Institute of Education holds conferences providing an opportunity for academicians and professionals to share their theoretical knowledge, research findings and educational practices with their colleagues and academic community on such issues as life-long learning (domestic and foreign experience), strategic tasks of providing competitive quality of education, strategies of development of young qualified professionals, challenges of further development and improvement of the supplementary education for children and other pressing issues. Such conferences and discussions provide a framework for organizing creative laboratories, work-shops, round-table seminars both for students and teachers as well as in-service teacher training for updating theoretical and practical knowledge in the sphere of pedagogical education, enhancing professional skills in the light of scientific and practical innovative achievements.

7. Summary

In the 21st century teacher education is in need for radical changes. Close cooperation with professional community, consideration of labor market requirements, strengthening of school—university partnership, educational and scientific collaborations in the framework of “higher educational institution—region—country—international community” enables to respond flexibly to emerging changes. The implemented strategy is bearing its fruit. It has been proved by the increased grade point average of students entering the pedagogical training fields of the Institute of Education. It provides an opportunity to choose the best applicants who are motivated to become teachers. Initial high motivation increases the rate of employment of graduates in the education system. To ensure the competitive selection of applicants the Institute of Education annually launches new educational programs (estimating the teaching staff requirements). Last year innovation is that a bachelor’ degree program enables to get a degree in two specializations that attracted applicants even from the remotest parts of the Russian Federation. Launching new educational programs enables to update the contents of the teacher training programs and reconsider educational technologies, educational resources, forms of practical training, students’ research work and a teacher—student cooperation format.

Thus, the problem of enhancing the level of professional training of pedagogical staff and adjusting a system of pedagogical education to the requirements of the modern society can gradually be solved and the experience of the Kaliningrad region as a pilot region where the introduced innovations yield positive results is one of the possible strategies to be adopted.
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