Profession-oriented Educational Technologies in Teacher Training at Pedagogical University in Russia

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Abstract

The article deals with the problems of profession-oriented training at Pedagogical University. The authors show the major perspectives on more profession-oriented training of future teachers that are opening in cooperation between Pedagogical University and educational institutions of different types within the framework of university-supervised chairs. The experience of Omsk State Pedagogical University in such cooperation is studied[4] to find out what profession-oriented educational technologies are mostly wide-spread in the work of university-supervised chairs and what their contribution to practice-oriented training is. The authors analyze the reports given by the university-supervised chairs at the end of the year, narratives and interviews with school teachers and university lecturers. The problems and perspectives of using profession-oriented educational technologies are also discussed in the article. To conclude with, innovative profession-oriented educational technologies (project seminar, clinical supervision, action research) are recommended for further work within the framework of university-supervised chairs.

***Key Words*:** Teacher Training, Pedagogical University, University-Supervised Chair, Profession-Oriented Educational Technologies, University-School Cooperation

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Introduction

Professional activities of a modern teacher acquire features such as nonlinearity, variability, contextual conditioning, mosaic, and uniqueness. In every day practice teachers should be ready to deal with a variety of complex issues. Teaching is becoming very person-oriented, context-conditioned meaning that there are no unique methods that can be used by teachers to educate and develop the rising generation. Modernization of pedagogical education in Russia is aimed at making teacher training more practice-oriented (Bolotov, 2014). Pedagogical Universities are trying to find new forms and technologies to prepare future teachers for schooling in the conditions of the 21st century. One of the major perspectives on more practice-oriented training opens in the establishment of University-supervised chairs at Institutions of General Education (schools, gymnasiums, lyceums). University-supervised chairs are called basic chairs of Pedagogical University at Institutions of General Education and they have already become the proper places where practice-oriented training is provided. Practice-oriented teacher training at University can be realized through internship and long-term traineeship at schools, competence-oriented design of learning materials, and profession-oriented educational technologies. At the moment, Omsk State Pedagogical University carries out a project initiated by the Ministry of Education and Science of the Russian Federation and it is expected that one of the main outcomes will be a conception about university-supervised chairs functioning within which different profession-oriented educational technologies will be used for future teachers training.

Theoretical Ramework

The questions of what profession-oriented educational technologies are supposed to be effective and how they can contribute to improvements in teacher training at university have been extensively discussed in the professional community. Many researchers claim that to strengthen practice-oriented aspects of teacher training at Pedagogical University the scope of profession-oriented educational technologies should be expanded (Ahtarieva, Mokshina & Rakhmanova, 2015; Berlina, 1999; Burlakova, 2009;). Apart from traditional profession-oriented educational technologies such as instructional training, workshops, master-classes, etc. new technologies should be found. V. Guruzhapov and A. Margolis (2014) emphasize that innovative profession-oriented educational technologies should relate training to actual classroom experiences and daily activities of teachers. Suchlike technologies have a great practice-oriented potential and allow future teachers to adapt to a certain workplace and certain conditions. E. Vasilevskaya (2007) underlines the integrative basis (theory and practice) of profession-oriented educational technologies and believes that the most suitable

places for using such technologies are schools but not university lecture rooms. In Zhukov and Sopegina's views (2015), university-supervised chairs, where communication of scientists of the university with practicing teachers takes place, can be considered as the right places for projecting profession-oriented educational technologies. While projecting profession-oriented educational technologies, scientists and school teachers exchange information about different theoretical and practical novelties that enrich both scientists and practitioners' teaching experience on the basis of value-oriented approach to teacher training.

Unfortunately, university-supervised chairs in pedagogical education in Russia are not widely practiced perhaps because of the "gap" between theoretical and practical training of graduates of pedagogical universities, which is often the subject of serious criticism on the part of employers, i.e., heads of educational institutions. Modern challenges and changing requirements for teacher training urge pedagogical universities to create university-supervised chairs in educational institutions as a key component of interaction between the theory and practice of education. Thus, analyzing educational practice in Russia we distinguish the following types of University-supervised chairs*:*

1) University-supervised chair of one-way collaboration. There are university-supervised chairs located in a university (set up at the university's discretion) and university-supervised chairs located at the enterprise (set up at the enterprise's discretion).

a) A university-supervised chair established at the initiative of the university supporting the establishment of the institution and implementing a network of training programs (undergraduate, graduate, postgraduate). Such a chair is established with the purpose of integrating research and educational centers. Students can choose their major and minor, do research, use research results at their workplace or in their studying (Muratova & Fedorov, 2009). These chairs focus on the following:

- strengthening practical orientation of the educational process by attracting to qualified practitioners from a partner organization;
- development of student research skills in areas that such chair is focused on, solving urgent problems of science, education, economics and management;
- organizing in-service training at a partner enterprise;
- internships of faculty members at a partner organization;
- Professional development courses for practitioners at the university.

The university can use resources of a partner organization to include the best practices of leading institutions and companies in the educational process and take account of the requirements of the regional labor market. As noted above, the establishment of such

chairs is initiated by the university, but partner enterprises also benefit from them. They get an opportunity to select highly skilled personnel and find talented young people as well as to meet with a prospective employee in advance and let him or her choose such type of activity that fits best with his or her desires and abilities. It is a real opportunity of in-service professional training. (Sigov & Petrov, 2010) It prompts mutual exchange of ideas between the youth and the experienced employees.

b) University-supervised chair is created on the initiative of a partner organization to advance cooperation with the university of a particular company or research institute. The scope of cooperation is defined individually in each case. Such chair is organized in order to prepare students to work in a partner establishment during their studying at the university and to help students learn specific technologies. This chair may bring the training of future specialists closer to the actual production process. Part of the training of seniors and graduates is carried out at the chair, where they are able to bridge the gap between theoretical learning and practical skills (Torkunova, 2014).

Since 2014 pedagogical universities can also conduct educational activities directly in schools through the university-supervised chairs. According to Deputy Minister of Education and Science of the Russian Federation, A.A. Klimov, these chairs are particularly important for bachelor degree programs in applied science (Manushin, 2013). Students can build individual learning paths with according to their interests and future employment opportunities. It is assumed that university-supervised chairs are organized in close co-operation between educational institutions of different levels. Training will be realized with the use of infrastructure and methodology of partner institutions. Pedagogical universities make partners with schools, vocational colleges and various social centers. University-supervised chairs that work with non-industrial sector can be separated into a third type of chairs (Simonova, Minyurova & Rubina, 2014).

2) University-supervised chair of bilateral cooperation. This type of chairs is created in order to organize cooperation between the University and a partner educational institution, which involves the following main areas:

- research and methodology support of the partner educational institution (O'Hanlon, 1996);
- practical orientation of educational process of the university at a partner educational institution;
- research and methodology and project based learning at the university and partner educational institution.

An educational institution (school, vocational college, social center) will be able to use research potential of the partner university and develop a new joint development program (Makashina, 2015). It will also be able to

summarize the experience of the institution and disseminate it in the scientific community and start up innovative projects. Representatives of the academic community might also make changes in the educational process in these institutions. (Gaufarova & Kozel', 2014) Students will have an opportunity to participate in master classes and lectures of leading experts of the pedagogical university. Employees of the university-supervised chairs develop joint educational programs that involve partners in the educational process. Students of the university access lectures, (seminars, master classes, workshops) led by practitioners who have extensive experience in the professional field of teaching. Pedagogical internship, in such conditions, is becoming more centralized. Partner educational institution becomes a research and methodology laboratory that makes it possible to systematically analyze lessons of the teachers who work for the partner educational institution and other practitioners. Teachers provide research and methodology support to the partner educational institution, lead Olympiads, student and school conferences, etc.

Based on what was mentioned, it is advisable to identify two variations of university-supervised chairs specific for Pedagogical universities: basic subject chair and interdisciplinary chairs. The first one is focused on a basic subject which is often similar to that of the relevant department of the university. The second type of chairs works in different directions or assists in the development of interdisciplinary studies.

Methodology

The study aims at discovering effective profession-oriented technologies which can be used within the framework of university-supervised chairs providing training of pedagogical university students during their school internship.

The authors used the following set of qualitative methods to fulfill the aim of the study: interpretation and evaluation of the final reports given by university-supervised chairs at the end of the year as well as narratives and interviews with school teachers and University lecturers about university supervised chairs functioning. The interviewees were school teachers and university lecturers who were involved in the University-school cooperation.

Interpretation and evaluation of the final reports given by university-supervised chairs at the end of the year show which profession-oriented educational technologies are expected to be used most often in future teachers training.

Narratives and interviews with school teachers and University lecturers serve the basis for understanding teachers and lecturers' attitude towards the whole practice of cooperation between schools and Pedagogical University within the framework of university-supervised chairs.

Profession-Orented Technologies in the Work of University-Supervised Chairs of Omsk State Pedagogical University

Analysis of the reports on activities of 19 basic subject chairs reveals the main directions of their work. Schools of the city and the region make up to around 80% of partner educational institutions. Colleges (15%) and urban community centers (5%) are also considered partner educational organizations.

Content analysis of the reports given by the university-supervised chairs at the end of the year helped to identify profession-oriented educational technologies that are most often used. These include: instructive training (40%), workshops and seminars (23%) master classes (17%), professional contests (10%), innovative professional oriented technologies (coaching, narratives, projects clinical supervision) (10%). These results are shown on the diagram:

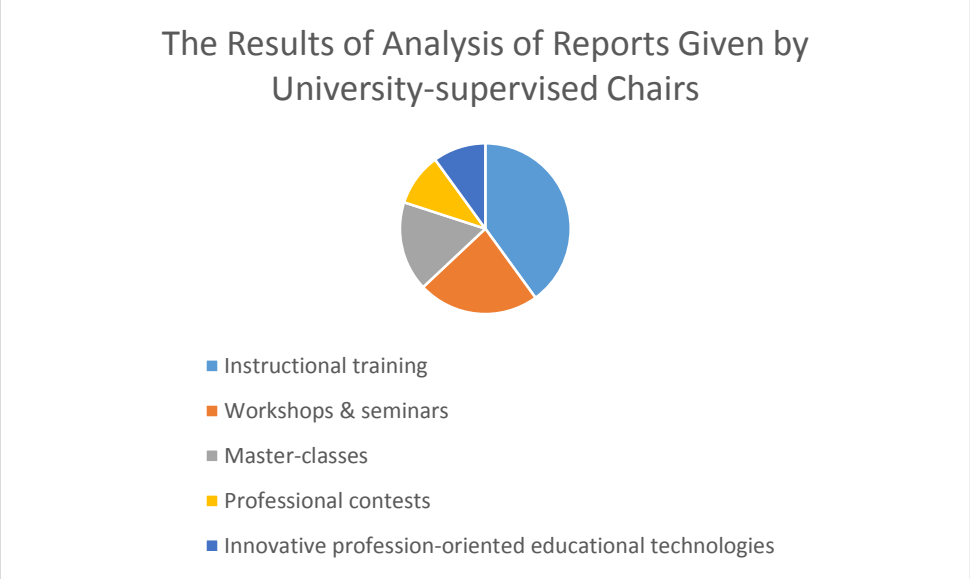

Fig.1 The Results of Analysis of Reports Given by University-supervised Chairs

Instructional trainings are prioritized to profession-oriented educational technologies because they do not demand any extra competence of teachers to realize them and they provide a good venue for sharing experience and developing professional competencies of students (future teachers). Innovative profession-oriented educational technologies (coaching, narratives, projects, clinical supervision) are still not often used because it requires extra efforts of school teachers and University scientists to project such technologies and cooperate in realizing them. It is a rather time and energy consuming, complex work. But with all workload and paper circulation that teachers and scientists experience nowadays it is

quite problematic to project and realize new technologies. Though, there are some good examples of such cooperation between Omsk State Pedagogical University and municipal schools № 19 and № 115. University scientists and school teachers have developed a programme that includes coaching, projects and narratives for students who have internship or traineeship at these schools. In close cooperation a lot of problems were solved at place – school teachers, University scientists and students were as one community of learners equipped with theoretical and practical knowledge. University scientists led this learning community to the goals of professional competence acquiring and development. School teachers were giving practical recommendations on different aspects of classroom problems management. Students were trying to arrive at decisions of the situations they experienced in classroom. As a result, all together came to the conclusion which skills of students need further improvement and which have been excellently demonstrated and applied in classroom.

In talking about other things found by the researchers during reports analysis, it is necessary to mention about the problems appeared during profession-oriented educational technologies realization. In their reports and narratives school teachers mentioned about: the lack of a clear understanding between traditional and profession-oriented educational technologies; uncertainty about the role of school teachers in such technologies realization; not enough knowledge about the conditions of such technologies realization. Some school administrators who were interviewed later complained that the main problem had been with those University professors who are not ready to share duties with school teachers and underestimated teachers' practical experience and mastery.

University scientists also pointed out some problems in their narratives and reports: partial overlap of cooperation tasks of regular university chairs and university-supervised chairs; some difficulties in projecting technologies because school teachers are not fully ready for such work (not enough theoretical knowledge, skills to project, etc.).

Some personal interviews with school teachers also revealed the problem of students' low motivation towards coaching sessions and projects. Some students formally took part in those events but not all demonstrated enough interest in obtaining certain skills. The situation can be explained in the way that not all students are planning to work at schools and even in the sphere of education. They study at Pedagogical University just to get a good pedagogical education which in the future will help them to find a prestigious work in big companies which are looking for human resources managers.

Based on that, it is advisable to identify two variations of university-supervised chairs which

are specific for pedagogical universities: basic subject chair and interdisciplinary chairs. The first one is focused on a basic subject which is often similar to that of the relevant department of the university. The second type of chairs works in different directions or assists in the development of interdisciplinary studies.

Results

Profession-oriented educational technologies have a great practice-oriented potential and can be successfully projected and realized only in close and permanent collaboration of University scientists and school teachers. University-supervised chairs are appropriate places for such collaboration. University-supervised chairs are still not wide-spread in educational practice of Russia and it appears that not all educational institutions and people involved in this activity are ready for such work. But, it is already a growing tendency when Universities are organizing such chairs in different types of educational institutions. There are some valuable achievements obtained by Omsk State Pedagogical University that are connected with profession-oriented technologies realization during University scientists and school teachers' collaboration within the framework of university-supervised chairs (Makarova & Drobotenko, 2015). First of all, these achievements reveal themselves in reliable links established between Pedagogical University and schools; then, in benefits gained from collaboration between scientists and practitioners; also in practical findings that can be disseminated. It is the first step of Omsk State Pedagogical University on this way and the next one is going to be undertaken next year and the plan is to create a conception of profession-oriented educational technologies application in teacher training within the framework of university-supervised chairs.

There is also a suggestion from University scientists and school teachers to set up a network between one-type university-supervised chairs (e.g. Chemistry chairs) that will unite all suchlike chairs from different educational institutions. In this case, it will be easier to exchange information on various occasions of profession-oriented educational technologies realization and share best practices as well as to discuss the issues of practice and questions of professional development.

According to the opinion of University scientists and school teachers, the most promising profession-oriented technologies for such a type of collaboration are *project seminars, action research and clinical supervision*.

Project seminar is executed as a group discussion based on actualization of knowledge and experience of every participant. Project seminar includes the development of a project (purpose, plan, prognosis, results) as a group way of solving a problem. First of all, it is important to emphasize that the technology of organizing project seminars is a way to

arrange collective creative activity which is aimed to solve problems. During project seminars the participants analyze classroom situations, state problems, search the ways of their resolution. Collective work, in its way, makes it easier to do. This makes project seminars different from other types of profession-oriented educational technologies such as instructional training, active forms of teaching, seminars, role-plays etc. The second distinctive feature of a project seminar is the position of the moderator. The moderator of the seminar is the organization of communication among the participants of the seminar. The moderator organizes the process of collective work on the problem. The participants of a basic chair may as well be the moderators of a project seminar or regular participants of it. A project seminar is devoted to the search of original ways of work, which allow to find solutions for various problems under consideration. Thus, project in this context is understood as a mental activity due to which it becomes possible to find a solution for the problem under consideration. The stages of organizing a project seminar are the following: 1) self-determination of the participants; 2) analysis of the situation, conditions and circumstances; 3) problem stating; 4) description of the ways of the problem solution; 5) estimation of human, time, financial, technical and other resources; 6) determination of possible effects of the project.

Action research - is a process of investigation, reflection and action which deliberately aims to improve, or make an impact on the quality of the real situation which forms the focus of the investigation. It is a form of inquiry which involves self-evaluation, critical awareness and contributes to the existing knowledge of the educational community" (O'Hanlon, 1996). Three reasons explain why action research can be an effective innovative profession-oriented technology: it is inquiry-based, and allows future teachers to investigate their own worlds and it leads to deliberate and planned action to improve conditions for teaching and learning.

The next technology that can be used during the sessions of university-supervised chair is *clinical supervision*. It was originally conceived as a means of fostering teacher development through discussion, observation and analysis of teaching. Today, clinical supervision is perceived as an effective profession-oriented technology. It has a positive effect on teachers' performance and attitudes. In addition, this kind of supervision requires a collaborative perspective between supervisor and teacher, which is a rare occurrence (Villegas-Reimers, 2003).

All these technologies have a reflective, research-based, sense-making ground and promote critical thinking that puts students (future teachers) in the active position towards the issues they face in classroom. Acquiring such an experience, students are

becoming more emphatic to their pupils' needs and more sensitive to their own inner motives, intentions and ambitions. For University scientists and school teachers such collaboration on profession-oriented technologies realization is a tremendous possibility to become more professionally mature and knowledgeable in their field of expertise.

Conclusions

Thus, it can be concluded that practice-oriented training at Pedagogical University will be strengthened if they continue taking initiatives in organizing university-supervised chairs in different types of educational institutions as the places where profession-oriented educational technologies will be applied. It will give the following advantages:

- integration of theory and practice in University teacher training through collaborative reflective practices of University scientists, school teachers and student;
- research and methodology support for school teachers and for educational institutions in general because such a collaboration create conditions for the professional development of school teachers and opportunity for educational institutions to develop social and research projects;
- the results of work within the framework of university-supervised chairs are in demand by university faculty members who teach courses in methodology of teaching specific subjects or courses in other pedagogical sciences (educational technologies, classroom management, etc.);
- development of city and regional teaching community where norms and values of teaching are produced and profoundly accepted through collaborative work of University scientists, school teachers and student;
- targeted work with educational institutions of different types helps to understand their needs and take into account their requirements for teacher training at University.

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