Elena V. Kondratenko[1], Marina N. Kurdyumova[2]
Mari State University, Yoshkar-Ola, Russia

Methods of Faculty Training in the System of Extended Education

Abstract: The system of tertiary education in Russia is going through serious reformation processes which require a new kind of university faculty to be trained. The article refers to the experience of Mari State University of initiating the faculty training program "Teaching in Higher Education" which is aimed at young teachers and those requiring refresher training in terms of teaching in the system of tertiary education. The curricular of the course is constantly revised based on pre- and post-course feedback from the participants. The article focuses upon interactive methods of teacher training among which are case studies, project work, cooperative and collaborative learning, and game activities. It also defines the main challenges the participants face and sets prospects for further improvement.

Key words: faculty training, extended education, higher education, active learning.

Introduction

Quality education in any country of the world is the key factor of successful economy and society development as well as guarantee of improvement in all areas of human activity. Current social and economic situation in Russia, reformation processes affecting all levels of education and especially tertiary education require continuous and refresher training of personnel.

Sometimes refresher training is required in subject area of the discipline taught but more often faculty engaged in Russian tertiary education are lacking educational training because very often the faculty staff have a degree in the subject they teach but not in teaching. Therefore they become subject to pedagogical inertia and practice teaching based on their own learning experience, replicating their own teachers without using any new methods and techniques aimed at op-

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[1] Elena V. Kondratenko, PhD is a professor at the Department of Pedagogics, Mari State University, Russia.

[2] Marina N. Kurdyumova is a postgraduate student at Mari State University.

timizing the process of education and increase students' motivation to learning. This is especially true for higher technical educational institutions since its curricular don't include pedagogical disciplines, and very often graduates of these institutions continue their education as post-graduate students and simultaneously start teaching technical disciplines without any teacher training experience. Thus in Yoshkar-Ola there is a great demand in extended training program "Teaching in Higher Education" which was launched by Mari State University (Yoshkar-Ola, Russia).

Young professionals' training model

The purpose of this paper is to present the model of young professionals' training to work in the sphere of higher education. The target participants of the program are post-graduate students and young teachers who have degree in technical or natural sciences and plan to continue their work in the system of tertiary education, as well as experienced teachers willing to improve their qualification in the field of pedagogy and psychology of tertiary education. The participants join the program having very diverse entry levels in terms of both their career education and employment teaching and scientific terms. Most of them have little to none teaching experience as faculty staff. Result of research showed that 78.9% have less than 3 years teaching experience.

Thus the program curriculum includes two blocks of disciplines: General Professional and Special disciplines blocks.

The block of General Professional disciplines (Psychology of human; Pedagogics; History, Philosophy and Methodology of Science; IT in Science and Education) is mainly aimed at refresher training while the block of Special disciplines (Theory of Professional Teaching, Technology of Vocationally Oriented Learning, Basics of Higher Education Management, Training of Vocationally Oriented Rhetoric, Discussion and Communication) focuses on psychological and pedagogical disciplines which reveal the specifics of working in a higher education institution. In compliance with the curriculum course participants have to undergo 100 hours of pedagogical training which involves both classes conducted under the guidance of experienced tertiary education teachers and discussion sessions providing analysis of the conducted classes.

Apart from vital for higher education disciplines taught and highly competent specialists involved in the course implementation, the co-financing scheme of the program is also considered an advantage. "Teaching in higher education" is included into post-graduate course training. So half of the training program is

financed by Mari State University (the source of finance is the Ministry of Education in Mari EL), another half is covered by the participant, which makes the course quite affordable and still keeps the participant from dropping out.

All educational and pedagogic support is aimed at defining and satisfying the participant's needs, i.e. exercising his/her right on professional and general life-long development. Before beginning of the course all the potential participants complete a survey aimed at identifying their educational needs. The analysis the most recent survey (October, 2011) allows to conclude that most participants are willing to "improve their professional competence as a higher education teacher" (65.7%), "learn and practice new educational technologies" (60.5%), "learn psychological features of teaching adults" (47.4%), "deepen their knowledge about the management of an educational process in a higher education institution" (39.5%).

It is rather evident that implementation of the educational program "Teaching in higher education" has its own specific character as some of the program participants are teachers who have well defined and conscious educational needs, formed due to their teaching experience and the vision of the "efficient" educational process. The program of faculty training at Mari State University is based on the principle of developing participants' personality and making them feel active learners when actualizing their learning needs which is the driving force of the whole process.

The process of adult teaching has certain challenges, which are characteristic of the adult education in general. For example, Kolesnikova (2003) identified the following difficulties that adults face in the process of education:

- social and psychological (fear of finding themselves in the state of a student, unwillingness to become the object of pedagogical impact);
- psychological and pedagogic (undeveloped mental set for continuing education, lack of information about possible forms of adult education);
- psychophysiological (internal barrier when it comes to personal learning abilities, lack of knowledge about the nature of personal perception and mastering the learning material);
- social (lack of need for further development on behalf of the society).

The participants of the program "Teaching in higher education" have confirmed the presence of all the above mentioned difficulties. Altogether 38 participants of the program took part in research.

They were offered to identify one or more difficulties arising in the process of education. Irrespective of their career employment term most of them (63.2%)

ticked as the main challenge, unwillingness to become an object of pedagogical impact, they experienced fear of finding themselves in a state of a student. The other difficulties proved to be less challenging. For example, internal barrier when it comes to personal learning abilities was ticked as a difficulty by 39.5% of respondents, undeveloped mental set for continuing education – by 31.6% and 26.3% of respondents ticked lack of knowledge about the nature of personal perception and mastering of learning material as a difficulty hindering their education.

To overcome the identified challenges the program developers tried to rely on general principles of andragogical education which form the basis of adult learning theory (Zmeev, 2002) that is:

1. Prioritizing learner independence which is the key element of adult education. Under independent educational activity we imply self-inclusive education when participants take active part in planning the contents and form of material to study. When implementing the program a lot of attention is paid to harmonizing goals and tasks of education with the participants' interests, which allows their interiorization and makes it possible to rely on the principle of independence in education.

2. Principle of using adult person's expertise as a source of education. The value of this principle can't be underestimated in teaching. Relying on this principle when designing the program allows building participants' capacity through job-related experience exchange.

3. Individualization of education. In compliance with this principle every program participant develops his/her own educational program aimed at certain educational needs and goals and taking into account his/her experience, attainment level, psychic and physiological and cognitive features. Individualization principle is achieved due to small group work and individual tailor made tasks which altogether make the process flexible and variable.

4. Consistency of education. This principle stipulates compliance between goals, contents, forms, methods, means of teaching and outcome evaluation of education. The disciplines learnt in the program represent a set of mutually complementary parts of pedagogics and psychology of tertiary education.

5. Context in education (Verbitsky, 2010). In compliance with this principle education on the one hand pursues vocational and personally significant goals and is aimed at participant's fulfilling certain social

roles and pursue personal development, on the other hand is based on participant's professional activity and his/her spatial, time, vocational and everyday factors. Implementing the principle of context is achieved by overlapping theoretical knowledge that participants gain taking part in the program on their professional activity.

6. Principle of learning outcome actualization which implies immediate implementation of the acquired knowledge and skills. The program runs during evening hours which allows to combine learning with participants' professional activity as well as test the theoretical knowledge in a real class setting.

7. Principle of electivity of education which implies giving participants freedom of choice in terms of goals, contents, forms, methods, sources, techniques of learning outcome evaluation, etc. A lot of time is devoted to independent work and research. The program lasts for 2 years. At the end of the first year the participants have to prepare a theoretical paper which is meant to represent the basis for their future qualification work. After completing the second year the participants are to defend graduate qualification work generalizing the results of the research performed.

8. The next principle is educational needs development, which helps to evaluate educational results by proficiency examination program and highlighting those which are a must for achieving the desired goal. Besides the process of education stimulates new educational needs defined after the previously set goals are achieved.

9. Principle of reflectivity which assumes that both teachers and program participants reflect on all parameters of the educational process and are able to reflect on and analyze their activities in terms of process organization during classes and face-to-face interactions.

10. Principle of cooperative learning means that participants work in small groups with the trainer and colleagues on planning, implementation, evaluation and improvement of the process of education.

11. Each of the above mentioned principles is fulfilled in methods and techniques of teaching used in educational program "Teaching in Higher Education", thus some of them allow realizing more than one principle simultaneously. Special attention when implementing this program is paid to such technologies as case-study, project work, methods of cooperative learning and role-playing games.

Training methodology

The main goal of the *case-study* technology within "Teaching in Higher Education" program is development of participants' communicative skills, stirring up their reflective and analytical activity when searching for the optimal solution to the real-life situation or event which under the conditions of resources shortage can't have an unambiguous solution.

The case-study technology allows to solve a number of tasks and develop participants' meta-competencies: master skills and techniques of thorough analysis of professional situations, make decisions immediately (here and now), practice the skill of requesting the additional information necessary for clarifying the background situation, i.e. ask correct questions aimed at development or understanding, visualize specific features of decision making in the situations of uncertainty and propose different approaches to roadmap building aimed at desired outcomes, master verbalization skills, i.e. clear and exact statement of personal opinion in oral and written form, practice presentation skills implying convincing and well grounded delivery of the personal viewpoint, train constructive critical evaluation of the other viewpoints, develop the skills of making independent decisions based on group analysis of the situation, master practical experience and benefit from one's own and other people's mistakes via feedback.

The cases realized in the program were developed on the basis of principles ensuring their efficient application. First of all their compliance with the goals of education. Besides their maximum possible approximation to the real professional activity of participants (real or virtual but always with a dilemma). There should be a number of possible solution options. The cases are typically different depending on the level of their generalization, amount of the given information and/or complexity of the problem. The cases are constantly actualized to reflect constantly changing real-life setting.

The participants are offered a specific case (casus) for analysis and searching solution, i.e. real-life practical situation containing information on some event (or sequence of events) with some unsolved problems. Most often the cases center round some real people on the moment of important decision making procedure when they are to take certain actions and bear responsibility for the consequences. The cases usually represent a brief description to be read and analyzed. For example, a case may contain a gist of the dilemma or a problem with a sketchy circumstances description (something happened or occurred). The information may be presented in a documentary form (e.g. message) or delivered via verbal or visual means (e.g. video or/and slides). After the situation presentation the group gets some data to be examined and thus the process of their analysis

and further detail elaboration begins. All cases for the program are taken from real life higher education experience.

The key distinction of case-study technology from other intensive technologies of stirring up the learning process is that working with cases and trying to find the most effective solution always requires professional and managerial competency of participants. Most situations require special knowledge (i.e. cases of labour legislation violation require profound knowledge of employment law, cases which deal with analysis of students' low motivation can't be solved without social and psychological competence, etc). Such specific knowledge comes rather with acquiring teaching skill than general life experience.

When analyzing the situation the participants often offer more than one solution and rather often many of these solutions are reasonable since the desired goal can be achieved by a number of ways. Under such circumstances we can talk about the most effective approach of applying this technology which can be used when dealing with any topic and at any stage of the educational process: before, during or after the practical class or lecture. Situations may be offered independently or embedded into the topic of a seminar or practical class. Application of micro-situations akin to "What would you do in this situation?" allows the teacher to add elements of creativity into the educational process and requires new conclusions and generalizations from participants, focuses learners' attention on the material under study.

The advantage of the case-study method provides unique opportunity for the participants who have no or little pedagogic experience to try and challenge complex or emotionally sensitive issues in the safe environment of a classroom together with colleagues without taking risks of real life situations. This method allows participants to learn without being worried of unpleasant consequence that may occur as a result of the incorrect decision. Embedding the case-study method into the curriculum allows complementing many theoretical aspects of the program with practical tasks that the group has to solve. The cases prepared for the program "Teaching in Higher Education" include such as "Factors of students' cognitive activity motivation", "Structure of student portfolio", "I'm a tutor", "Project work and organization of the training course education process", etc.

Besides case-study method described above project work is also widely used in the program which implies setting a socially significant goal and achieve it. In the course of such work learners master the skills of creative professional work through individual contributions and group work. Project work in the educational context means activity, initiated by a problem and including strictly ordered sequence of actions eventuating in certain desired results. Thus the project work is grounded on the idea that educational and cognitive activity of learners

is aimed at some outcome obtained when solving a practically or theoretically important issue. The external result of the project work is some kind of product that can be seen, comprehended, implemented in real-life practical activity. The internal result – experience, becomes an inherent asset of the learner, his/her "possession" representing a merge of knowledge, skills, competencies and values.

Before setting a project task for program participants teachers and trainers of the program test it using the rule of 5Ps introduced by Tarasova (2004) which includes problem, planning, information search (in Russian search also starts with "p"), product and presentation:

1. First comes socially important issue (problem) which can involve research, information or practical activity. Finding a quality problem is one of the most challenging organizational tasks for a teacher because the rest of the project work will be centered round finding a solution to this problem.
2. Implementing any project starts with careful planning of actions aimed at this problem solution. In other words on this stage the type of product and form of its presentation are defined.
3. Every product necessarily requires some research work, i.e. information search that will be processed, comprehended and presented to the members of the project team.
4. Product is the result of the project work. It can be a method developed by the members of the project team meant for problem solution. The product may be represented by a draft, model, multimedia product, recommendations, scenario, video, collection, analysis of survey, article, illustration series, report, etc. The key product requirement is its tangibility: a theoretical problem must be solved as a result of project implementation, a practical issue should result in a concrete outcome.
5. The final stage of the project requires its presentation. It may be a scientific conference, role playing or business game, advertisement, exhibition, press conference, etc.

We will refer to a generalized algorithm of educational project work implemented in "Teaching in Higher education" course.

- 1st stage – problem finding or defining. A specific task of improving the educational process may act as a source of the problem (for example, developing methodological and didactic aid, reference books or text books, guidelines, videos and multimedia presentations on certain issues and topics of the program). Teacher's primary objective on this stage is to help participants realize the problem and motivate them to

look for a possible solution and come to a certain result – product of educational project work.

- 2nd stage – establishing creative teams to work on the project. On this stage members of the group work in pairs and small groups. The groups are usually heterogeneous.

- 3rd stage – careful planning of the project work. On this stage the possible sources of information are defined, means of collecting and analyzing information are identified, ways of results presentations are agreed upon, criteria for product evaluation are specified and the roles between the members of the creative team are distributed.

- The 4th stage starts with collection and analysis of situation. It is the time when research activity is organized. The key requirement here is using diverse sources of information and various means of this information obtaining (literature review, questionnaires, interviews, surveys, observation, Mass Media analysis, experiment).

- The 5th stage is information analysis. On this stage the base materials are discussed and the projects are developed.

- On the 6th stage the obtained product is presented. The way the results of the product are delivered depends on its type and may vary significantly. A product may also be presented in different forms. For example, it may be a presentation of the project in front of members of administration and teaching staff of a higher education institution.

- On the 7th stage the results of the project are analyzed and assessed. Within the program "Teaching in Higher Education" the participants do the following projects: "Using differential training in second language teaching", "Developing an e-learning educational resource in IT", "Using museum pedagogics when training journalists-to-be", "Students' subculture", "Development of students' creative thinking in the process of physics learning", "Using Web-Quest technology for students' independent work", etc.

Any project activity including the one implemented within the program "Teaching in Higher Education" implies well organized learners' team work and may be realized using cooperative or collaborative learning techniques which in fact is an umbrella term embracing a range of methods and techniques aimed at gaining synergy from cooperative and collaborative educational activity. Cooperative learning is a type of interaction when all the participants are working towards a common goal, are oriented on mutual help and mutual support and put every effort to build the atmosphere of partnership, amicability, optimism,

trust which results in quality educational results. Using cooperative and collaborative learning techniques in "Teaching in Higher Education" program allows to develop learners' communicative competency and critical thinking skills, but what is more important, cooperative learning promotes spiritual bond between the participants of the educational process who are linked together by interest in a common cause.

Cooperative learning is based on small group work as the most widely used form of cooperation. The main difference between cooperative work and other forms of group work is that cooperative work is based on certain rules of cooperation which imply:

- positive interdependence between the group members along with each group member's individual accountability for his/her own success and for the success of other members of his/her group;
- special attention is paid to social aspects of education, to the ways of interpersonal communication between the group members;
- there should be a common evaluation of the group work which includes both evaluation of academic results and efficiency of communication between group members (Barkley, 2005).

Small cooperative groups favor reflection, cognition and self-actualization, represent good environment for observing the activity of other group members and self-study. Interaction between learners and their dealing with learning material is carried out in successive steps when the external actions are actualized and become personally important. According to Slavin and Kuper (1999) cooperative learning "improves academic achievement as well as intergroup relations" and "can foster positive social relationships among students of different racial and ethnic backgrounds.

Cooperative learning is characterized by problem definition of educational context, creativity and social intercourse. In the process of interpersonal communication, expressed assumptions and thoughts sharing the participants of the program gain new knowledge and master their social skills. Cooperative learning develops team spirit which is essential for further pedagogical activity of program participants.

Such collaborative learning techniques as Buzz Groups, Critical Debate, Jigsaw, Group Investigation (Barkley, 2005) were most effective when covering such topics as "Conceptual Framework of Higher Education Organization", "Variety of Educational Techniques in a Higher Education Institution", "Methods of Pedagogical Research in Teaching", etc.

The forth technology that acquired the reputation of effective is the game activity, defined by Vygotsky (1933) as "sensible, reasonable, appropriate, systematic, socially coordinated the psychological nature of which is identical with a psychology of labour". Since didactic game reflects subject and social contents of the professional activity, its collective nature, it also encourages conditions for modeling subject, social, and psychological contents of current professional activity, develops professional competence of young teachers and masters the skills of independent activity and adequate decisions in different pedagogical situations.

The principles of organizing and conducting role-playing games imply: emergence of game players into the modeled system or situation, gradual entry into the game situation, equality of game load on every participant, competition of the game playing groups, credibility of the modeled situation.

As a rule the participants of the program "Teaching in Higher Education" find themselves in a situation when they have to act on behalf of different stakeholders. Any real-life process can be played as a role-playing game. For example, before the roles distribution learners are given the task to motivate students to attend classes at the University to reduce dropout rate. This problem situation has a number of stakeholders: university administration, who are interested to have high attendance rates for future enrollment champagne, teachers who are also interested in high attendance rates because otherwise they have to work individually with absentees at the expense of their research work, students who miss classes for some objective reasons (overlapping class hours and part-time jobs, loss of interest to studies, active personal life leaving no time for studies, etc), students' parents covering their children educational expenses and therefore willing their children to get education they paid for and finally students' employers who find it beneficial to hire students because they don't ask for high wages or social security therefore they are ready to do anything to keep students even at the expense of their studies.

Thus role-playing game is a means to widen the participants' experience by placing them in a professionally oriented situation in which they are asked to take a certain position (play a certain role) and then through communication with other participants reach a decent agreement.

Role-play specialists mention that role-playing game allows every participant to reveal and demonstrate his/her identity, creativity, to develop skills of "trying other person's shoes", thus better understand their convictions and feelings and create conditions for a better reflection on norms and rules of behavior and communication. In its turn it favors realizing the importance of social and psychological factors when dealing with other people. Besides game players get

the experience of objective analysis of their own behavior as well as behavior of others, develop metacompetence.

Role playing game allows learners look at him/herself and the role he/she acts from the sideline. This is very important for perceptive education, development skills of adequate partners' perception and achieving mutual understanding when choosing the most efficient behavior scenario. Implementing role-playing game is risky but only in terms of group reaction but not in terms of the impact of the game itself. Role playing game gives the players a chance to master or reinforce different behavioral patterns. Communicative environment of the training is an advantage because again it is free from dangers and risks of real life situations. Players would certainly benefit a lot from skillful organization of a role playing game.

Conclusions

Summarizing the above said we should admit that introducing such methods and techniques of active and interactive education into the program "Teaching in Higher Education" as case-study, project work, collaborative learning and role-playing games proved to increase participants' satisfaction with the program which is evident from feedback research. After introducing these techniques satisfaction rose from 60,5% to 89,5%.

The results of the participants' feedback obtained after completion of the course allow to conclude that 73.7% of respondents were completely satisfied by the course, 15.5% were satisfied in general and 10.5% consider that the course didn't meet their educational needs. While completing the feedback report the participants defined the lack of time required for individual tasks set by the course curriculum as quite often the participants had to combine their job and studies.

Comparing surveys also revealed that introducing interactive methods and techniques (case study, project work, cooperative and collaborative learning, and role playing games) increased participants' satisfaction with the program (from 60.5% when the program started to 89.5% in 2011). Participants were also asked to choose the most effective educational methods and technique from their point of view. Some 36.8% ticked case-study method as their absolute priority, 31.6% gave preference to project activity, 28.9 % found collaborative learning effective and 2.7% marked role-playing game as an effective technique.

Along with this the participants of the program found certain challenges when these techniques were used in the educational process. So, 26,3% of respondents believe that interactive techniques require much more time to be

implemented efficiently and it will inevitably result in the time losses needed for program material coverage, 21.0% found it difficult to manage conflict situations arising due to contrary opinions of the situation, 36.6 found it difficult to play a certain role and defined the role playing situation as ambiguous and too conditional. Some 15.8% of those participants whose employment term was less than 3 years felt discomfort when asked to work independently, taking individual accountability for the result of their learning not regulated by the teacher.

Coming to conclusion it is worth mentioning that continuous feedback helps improve the program "Teaching in Higher Education" and bring it in compliance with the needs of target group: young teachers willing to improve their proficiency level in their educational activity. There are still some improvements to be made in the program: first and foremost is the increase of practical orientation of the disciplines taking into account specific character of teaching at a university and competency based approach. Participants' feedback also revealed some strong and weak points of the curriculum. Among the strong points the participants mentioned high level of professional competency of teachers involved in the curriculum implementation, interactive forms used in class, small groups and individual approach to every group participant, implementing the principles of andragogical education. The participants consider that some changes are to be made in the program, among which they mention the redistribution of classroom hours in favour of professionally oriented disciplines (Rhetoric, Professional Education Technologies, etc), reordering modules taking into account the educational needs of participants and possibility to build individual educational trajectory.

Thus although there are some improvements to be introduced in the course curriculum, generally speaking due to all the efforts made in this respect and the constant feedback obtained the experience of Mari State University is considered positive, well appreciated and highly demanded in the region.

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Elena V. Kondratenko[3], Marina N. Kurdyumova[4]
Mari Stejt univerzitet, Rusija

Metode obuke nastavnog kadra u sistemu visokog obrazovanja

Apstrakt: Sistem tercijalnog obrazovanja u Rusiji prolazi kroz ozbiljne reformske procese koji zahtevaju novu vrstu obuke za univerzitetsko osoblje. Ovaj rad se bavi iskustvom sa Univerziteta Mari Stejt u pokretanju programa obuke za univerzitetsko osoblje „Podučavanje u sistemu visokog obrazovanja" koji je namenjen mladim nastavnicima, kao i onima koji imaju potrebu za osvežavanjem znanja za rad u nastavi u tercijalnom obrazovanju. Nastavni plan ovog kursa stalno se unapređuje na osnovu informacija koje se dobijaju od polaznika pre i posle kursa. Ovaj članak usmeren je na istraživanje interaktivnih metoda obuka za nastavnike, kao što su studije slučaja, rad na projektima, kooperativno i kolaborativno učenje i igre. Rad takođe definiše glavne izazove sa kojima se učesnici suočavaju i otvara mogućnosti za dalji razvoj.

Ključne reči: univerzitetska nastava, nastavak obrazovanja, visoko obrazovanje, aktivno učenje.

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[3] Dr Elena V. Kondratenko je profesor na Odeljenju za pedagogiju, Mari Stejt univerzitet, Rusija.

[4] Marina N.Kurdyumova je student postdiplomskih studija na Mari Stejt univerzitet.