

Innovative Training Forms of Pre-Service Teachers of Technology for the Teaching the Basics of Entrepreneurship

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Abstract: In the article we consider the main issues related to the problems in the training of pre-service teachers of technology for teaching the basics of entrepreneurship in the modern context. The authors offer the innovative forms of teaching students which best provide the training of students in the field of Entrepreneurship and the Economics Fundamentals. Examples of such forms are the meetings with the business representatives, the entrepreneurs working day shadowing, the communication with them, as well as the preparation, organization and holding of business games with pupils and students.

Key words: Entrepreneurial training of pupils • Professional competence • Training of pre-service teachers of Technology • Innovative teaching forms

INTRODUCTION

One of the major tasks of the modern society is the move to the new reference points and technologies in the education, which today have the clearly defined innovative nature. First and foremost the innovations in the education system are related with the informatization of society life and the information educational space development.

The life itself, with its constantly increasing pace, dictates us the need for changes in the education system. The knowledge that students receive today are aged out within 2-3 years and this process due course will be escalate. The economic and social living conditions are changing so fast that today there is no need to memorize the large amounts of information [1].

Nowadays, as the practice shows, the students, who were seen as the best in the school and for whom the teachers have the high expectations, not often surge the success in life. Moreover, the results of studies conducted by the scientists in different years show that the majority of those, who on the generally accepted standards can be considered as the fulfilled and successful people, have never been the honors. In the XIX century Darwin argued: "Not the strongest and nor the smartest species can survive, but the ones, which are best adapted to the changes."

In the modern conditions the person shall have the ability to see the opportunities and use them optimally; he shall be self-reliant, independent in his judgments, capable of participating actively, make the informed decisions and take the responsibility for their consequences. In addition, he needs a good understanding of changes occurring in the Russian society, related to the transition towards a market economy [2].

The clearest manifestation of market relations in the society is the competition. The competition determines the ways of companies and organizations development, forms a certain culture of relations between the business partners, makes people flexibly respond to the changing situations [3-5]. According to A.Y. Flier, the term "social competitiveness" includes a professional stability, an ability to raise the qualification, a social mobility of personality: its ability to learn, receptivity to innovation, the ability to change the scope of professional activity, improving the social status, level of education, its ability to learn, receptivity to innovation, the ability to change the scope of professional activity, improving the social status, level of education. The formal criterion of social competitiveness is the professional recognition and respect by colleagues [6].

In the modern school the economic knowledge to the learners are mostly given by the teachers of

humanitarian cycle, while the practical entrepreneurial training of pupils is given by teachers of Technology. Namely the educational area "Technology" lays a solid foundation for students to give the core competencies in the field of entrepreneurship and economics.

The preparation of students in the entrepreneurship shall be based on the deep knowledge and practical skills to develop the specific conversion processes and to use the materials, energy, information and the objects of natural and social environment. Provided that they shall get acquainted with such terms and categories as: commodity, use value of the product of labor, functional and cost characteristics of the product, production cost, saving of raw materials, energy, labor; learn to take into account the impact of technological processes on the environment and human health. In addition, during studying the subject "Technology" the students shall master the ability to relate with the personal needs and characteristics of requirements imposed today by different professions to the personal qualities of the person. That is why the main task of the teacher of Technology in the modern conditions is to teach a child the certain multi-professional knowledge and based on them to form the appropriate practical skills that will later form the basis for the self-realization in the professional activity [7].

There is no doubt that in order to a pre-service teacher could educate the active, socially responsible, enterprising people, he shall himself have a wide range of knowledge and skills in the entrepreneurial activity, as well as have the individual professional qualities [8]. Hence it follows the objective necessity of innovative training of teachers of Technology in the field of Entrepreneurial activities and the Economics Fundamentals according to the requirements of the present stage of social development.

The experience, gained in the labor and professional training, forms the basis for the expansion and deepening of students training in the field of entrepreneurship, which has a practical orientation. Considering the above the higher education institutions that train the pre-service teachers of Technology, face with the task of improving the practical entrepreneurial preparation of their graduates focused on the efficient and productive activities that meet the modern requirements of the society and the prospects for the country development.

MATERIALS AND METHODS

The university training of pre-service teachers of Technology and entrepreneurship assumes studying

by them during the 4th year the course "Fundamentals of Entrepreneurship", the objectives of mastering of which are:

- Introduction to the theory and practice of entrepreneurship;
- Study of the fundamentals of creating your own business;
- Acquisition of adaptation skills for the theoretical knowledge to the Russian practice of entrepreneurship;
- Familiarization with the entrepreneurial activity, entrepreneurial project implementation, business planning, mobilization of resources.

As a result of studying the Fundamentals of Entrepreneurship the students acquire the practical skills in opening their own business, in problems solving for the current entrepreneurial activity, in search for new ideas and resources for business development.

The methodological basis of training of the teacher of Technology is the training and entrepreneurial activities, which permit to simulate and play any situation, related to the organization of the new activity, including the business and really imagine all possible consequences of their undertakings. Such activity is productive, as allows to combine the theoretical and practical trainings, forms and develops the students' entrepreneurial culture.

The content of entrepreneurial training for the pre-service teachers of Technology in the university can be divided into two blocks. First block-technical and technological, it includes the knowledge on such subjects as Materials science, Engineering mechanics, Theory of strength of materials, Electrical Radio-Engineering, Fundamentals of modern production, Hydraulics, Thermal engineering, etc. Second block-economic, integrates knowledge from such subjects as Economic theory, Management, Accounting and Taxation, Fundamentals of Entrepreneurship, etc. Thus, it shall include a wide set of professional knowledge and practical skills and certain personal qualities. Thereby, the entrepreneurial training of pre-service teachers is an integrative term that includes the formation of professional knowledge and skills on key technical, technological and economic disciplines, as well such personal qualities as resourcefulness, initiative, responsibility, self-discipline, economical habits, sociability, etc. [9].

Main Body: To provide the training in the university the teacher shall have the knowledge and the skillful use of

various forms of organization of the pedagogical process. The education form represents itself a purposeful, meaningful and saturated and methodically equipped system of educational and cognitive communication, interaction, relationships between the teacher and the student.

The following traditional educational forms are mainly used in the University: lectures, workshops and seminar lessons, laboratory works. However, in recent decades there are some changes in the nature of education, namely the creation and use of innovative educational forms. About innovations in the Russian educational system began to talk since 80s of the XX century. Right during this time the problem of innovation and, accordingly, the conceptual provision in Pedagogics became the subject of special studies, the authors of the most famous of which are K. Angelovski, M.V. Klarin, V.Ya. Liaudis, L.S. Podimova, M.M. Potashnik, V.A. Slastenin, A. V. Khutorskoy, N.R. Yusufbekova, E.A. Yamburg and others.

Pedagogical innovation is a change adoption in the pedagogical activities, a change in the content and technology of education and training, aimed at the improving of their efficiency. Thus, the innovative process consists in formation and development of the content and organization of new things.

As the leading functions of innovative training we may assume:

- Intensive personal development of student and teacher;
- Democratization their collaborative activity and communication;
- Focus on the creative teaching and active learning and student initiative in shaping himself as a future professional;
- Modernization of means, methods, technologies and material resources of education, which encourage the formation of innovative thinking of the student [10].

We offer the use of several innovative forms of students training the Fundamentals of Entrepreneurship in the University, which we practice for several years now on the Engineering and Technology faculty in the Elabuga Institute of Kazan Federal University.

One of those forms is the students work with the representatives of business that consists of organizing and conducting meetings with businessmen and entrepreneurs, shadowing of their working day and its analysis, communicating and interacting with them.

Such a form of training for the pre-service teachers of Technology assumes the direct communication with businessmen who are the professionals in their field, which allows students to learn more about the rules of effective business dealing, adequately to assess the financial situation of the company, to consider the specific examples from the experience of entrepreneurs, to reveal the features and capabilities of different types of entrepreneurial activities, to evaluate the entrepreneurs actions and to determine their future activities prospects.

The knowledge obtained by students during such activities, allow them to determine by their own the criteria for running a successful business, to work out their own algorithms of doing business in the modern conditions. Moreover, the personal contacts with the entrepreneurs and businessmen enrich the experience of business communication of students and allow them to develop their communication and organizational skills.

Another form of innovative training for the pre-service teachers of Technology is the organization and holding of lessons and training sessions on the Fundamentals of entrepreneurship and economics by the students themselves in the schools, lyceums and colleges. During the semester, before the pedagogical practice the students shall prepare the lecture notes, plans of seminars, scenarios and methodical development of games, extra-curricular activities on Entrepreneurship. The teaching activities skills the pre-service teachers shall work out in front of their fellow students and undergraduate students. Then, during the passage of pedagogical practice they give lessons in the schools and provide training classes in colleges and lyceums.

To organize and conduct games and gaming exercises on Entrepreneurship and Economics, the developers of whom are mainly students themselves, you need a large number of visual aids and materials, electronic presentations and information databases. All those are also made by students. So, at the Engineering and Technology Faculty there are such copyrighted business games as "The path of a millionaire", "Steps for Success", "How to write a business plan", "My resume", etc. These games are successfully carried out both in schools among the senior pupils and in the educational institutions of primary and secondary professional education among the students.

Acting as the moderators, the pre-service teachers shape all the necessary competencies that allow them to prepare students for the entrepreneurial activities.

Our many years experience of training the pre-service teachers to teach the Foundations of Entrepreneurship allows us to state that the use of innovative forms and teaching methods in the educational process changes their motivation to learn in a better way. Moreover, the students demonstrate the high cognitive activity, which is expressed in the increased interest to the subject and the involvement in the independent creative work on developing the business games and gaming exercises on Entrepreneurship.

The hold by us survey of graduates from the Engineering and Technology Faculty in 2011 and 2012 showed that 37% of former students work in the educational system and 26% went to work in field of business and entrepreneurship. These data indicate a fairly high interest of students from the Engineering and Technology Faculty both to the entrepreneurial and pedagogical activities.

CONCLUSIONS

Thus, the innovative forms of teaching students the Fundamentals of Entrepreneurship used by us provide:

- Professional competence formation of teachers of Technology based on a combination of theoretical and practical orientation of the course;
- Development of students' personal and professional qualities of their teacher and the entrepreneur.

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