

Chapter 11

The Significance of Using Business Simulations in Training of Bachelors and Masters



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11.1 Introduction

In the period of independence of the Kyrgyz Republic, it became necessary to develop a legal framework for functioning of the education system in the new socio-economic and political context. The main importance and the need to reform the system of education were stipulated by the entry of the Kyrgyz Republic into the world educational space. In this regard, the government of the Kyrgyz Republic has developed the legal and regulatory framework: “Law on Education”, program “Cadres of XXI century”, “Bilim”, and others that indicate implementation of a clear state policy in the field of education.

The modern conditions of development of manufacturing techniques and technologies raise high demands to the level of professional qualifications of specialists. Formation of technical and technological knowledge and skills of students of secondary vocational schools to a large degree depends on the quality of training of the teachers of professional education.

An occupation of a teacher of professional education is one of the most significant, requiring both engineering – technical – and also the deep psychological and pedagogical knowledge and skills, certain personal qualities, a large amount of knowledge, and a high degree of technical thinking.

According to the statistics in the system of initial vocational education in the Kyrgyz Republic, only about 6% of teachers have engineering and pedagogical education, and only 11% are qualified masters of industrial training (IT). A third IT masters have a qualification category, which is below the category of school graduates. Many teachers of general technical and special disciplines have only technical education.

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The development of higher education in the world imposes the new increased requirements to the training quality of the personnel that necessitates improving radically the study and educational work in the educational institutions, to enhance its efficiency, to use new methods and teaching aids. In many respects, the solution of this problem depends on the qualification of the teachers of vocational education, their competence, and skills. In the current situation, a vocational training teacher becomes a key figure in providing vocational education.

11.2 The Analysis of the Business Simulations Use in Training of the Teachers of Vocational Education

Any human activity, including a training activity, happens due to influence of the number of factors, the main of which are the needs. The needs cause the reasons of acts and behavior, which the psychology calls motives. The main purely human need is a cognitive need.

A number of errors, sometimes typical and expected ones, often accompany professional formation of a young specialist. How to avoid them?

To answer this question, it is necessary to indicate the main weaknesses in the training of specialists: lack of theoretical and practical training, the duration of the period of adaptation to the professional activity, and inability to solve professional problems in the extreme conditions.

A content area in business simulations is to imitate specific conditions and dynamics of production, as well as the actions and attitudes of people employed there, in other words, to reconstruct or to simulate two realities – the production processes and the structure of the professional activities of specialists.

According to the experts, in a higher educational institution, the game must represent an independent informative activity of a student in the framework of specific “rules and conditions aimed at searching, processing, and mastering educational information to make decisions in a problem-based situation”. Thus, the game becomes a learning environment for intellectual development of students because of providing a dynamic thinking and memory efficiency in the process of mental and cognitive activity (Platov 1991, p. 192).

A business simulation, as a learning method, allows to live a certain situation and to examine it in direct action. The following seven main qualities are formed during a business simulation:

1. The ability to communicate on a formal and informal basis and effectively interact on an equal footing.
2. The ability to exercise leadership qualities.
3. The ability to orient in conflict situations and to resolve them properly.
4. The ability to receive and to process the necessary information, to evaluate, to compare, and to assimilate it.
5. The ability to make decisions in uncertain situations.

6. The ability to manage time, to distribute the work among others, to give them the necessary power, and to take immediate organizational solutions.
7. The ability to show managerial capacities as an entrepreneur: to set long-range objectives and to use beneficial opportunities.
8. The ability to assess critically the likely consequences of the solutions made and to learn from own mistakes.

A business simulation cannot be the basis of a training. It can complement theoretical material and act as a final stage of mastering of the training material.

As one of the most active methods of a training, a business simulation has the following features: activation of thinking and behavior of the participants, a high degree of involvement in the process of the game, and mandatory interaction between the participants and the game materials.

Meanwhile, the advantage of the business simulation consists precisely in the fact that in a short period of time, several conflict situations can be concentrated, which need to be resolved. A student is guided by the rules while fulfilling the game actions. The rules are an essential element of a business simulation. Two types of rules are distinguished – the rules that limit actions of players and the rules-sanctions that punish players for misconduct – but these rules should be set by the game players themselves, and they must comply with them. If the rules are beam down, the game will not work (Shetinina 2013, pp. 15–24).

A lesson with a business game usually consists of the following main parts:

- A teacher's instruction on how to play the game (purpose, content, final result, an indication how to conduct, to form play groups, and to distribute roles)
- Study of the game documentation by players to determine the content of the game (scenario, rules, didactic materials), distribution of roles within the subgroups
- The actual game (study of the situation, discussion, and decision-making, attainment of the goal, arrangement of game materials)
- Determination of the game winners
- Summarizing and analyzing of the game by the teacher (analysis and evaluation of the progress achieved, analysis of the actions and activities of participants, the mistakes made in the game, and their causes, allocation of grades).

The position of a teacher in the course of the game is multifaceted: Prior to playing the game, he/she is an instructor who explains the content, procedures, and rules of the game; during the game, he/she is a consultant; when summing, he/she is the chief justice and head of the debate.

The experience shows that adaptation of the experts in business simulations is more effective than in the actual practice, as there is an opportunity to intensify professional relations, to pay attention to certain aspects of the professional activities, for example, to show typical errors in performing certain actions (Abramova and Stepanovich 1999, p. 192).

The skills and knowledge, which are acquired during several months in practice, can be acquired during several lessons in a higher educational institution. In this

case, the adaptation has more creative nature, because a student have almost no psychological barriers and fear for making mistakes, and that is important; all the student's activities are subject to a deep, qualified, and friendly analysis.

The contents of the subject matters "Methods of professional training", "Methods of teaching special subjects", and "Basics of pedagogical excellence" were analyzed in order to find an effective system for training of the teachers of vocational education.

To form educational, social, and organizational competencies, we have developed the business simulations "Lecture", "Analysis of a lesson", "Meeting with employers", and "Protection of teaching materials" and introduced them in the educational process among students in the field of vocational education of the technical higher educational institutions.

The experiments on the use of the business simulations resulted in enhancing the independent cognitive activity and form the professional competence of students provided that:

- Business simulations reflect the essence of their future profession.
- They practice skills in the conditions that are most closely approximate the reality.
- The contents of the business simulations are aimed at forming professional competencies of future masters and mastering of pedagogical skills by them.

The self-analysis of the results of the business simulation was carried out based on the outcomes of the survey. After processing the outcomes of the questionnaires, we found that:

1. The business simulation helped 80% of the students to understand better the theoretical material. They pointed to the lack of literature study, insufficient use of information sources, the novelty of the learning method, and failure to comply with labor discipline.
2. Sixty-eight percent of the students were able to implement their game plans for consolidation of the theoretical material.
3. Thirty-two percent of the students have not realized their plans because of insufficient preparation to fulfill their roles and functions, ill-preparedness to solve both standard and nonstandard tasks, and difficulties in making decisions by the game team.
4. Eighteen percent of the students liked the collective decision-making, productive communication with colleagues, opportunity to discuss and to correct decisions, and mutual help and mutual learning in the course of the game.
5. Thirty-two percent of the students believe that their main mistakes were inability to communicate kindly and to interact with colleagues, insufficient competence in formulating additions and questions, as well as comparing competently data carriers.
6. 72% of the students expressed the preference for the execution of the role of a leader; 60%, the role of a man of action; 68%, the role of a man of ideas; and 48%, the role of a man of contacts.

7. Twenty percent of the students believe that in case of the collective decision-making, it is difficult to assess the contribution of each participant in decision-making fairly and objectively; they feel injustice in putting down one common score for the whole group.

The purpose of the instructional techniques for forming a game team is to make an individual activity inappropriate and to approve the necessity of collective and group work in the eyes of the players.

A game team formation is closely linked with the problem of involving players in the game: no problems occur when the objectives of the game originally attract interest of the players and when the game players are genuinely interested in being acquainted with a new method of learning.

The main problems encountered during the game were:

- The creation of creative and competitive environment in the lesson, where criticism and self-criticism are becoming the norm and appropriate behavior
- Introduction of the participants in play activities, abidance of personal interests of participants to the collective decision-making
- Education of the correct attitude to the background information and the ability to use it while solving practical tasks
- Development of skills to work in the team and with the team
- Development of skills to express thoughts technically and literary competently and to give arguments for own decisions.

While conducting the business simulation, we have identified a number of pedagogical effects:

- The students showed interest in introduction of simulation games to the educational process.
- The students have been intensively developing their skills: creative, system technical, cooperation, and communication.
- The students were trying to develop a proactive stance, to participate in the competition, contributed to the socialization as individuals.
- Evaluation of the instructional work has character that is more objective.
- The things, which seemed boring, uninteresting, and hard in ordinary situation, became easy and interesting in the game.

11.3 Conclusions

Eventually, the use of business simulations in the educational process of the technical higher educational institution contributes to the advancement of training of bachelors and masters in the field of vocational education.

The proactive attitude of the students in the business simulations becomes apparent, bears so much long character, but not sporadic one, that the very atmosphere of the business simulation makes its participants to be active. First and utmost, while

designing a game, it is necessary to create a model of the real socioeconomic system in the structure of which managers or specialists will elaborate managerial decisions and acquire the necessary skills.

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