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ОСНОВЫ ПРИМЕНЕНИЯ ТЕХНОЛОГИИ СОТРУДНИЧЕСТВА В ПРОЦЕССЕ ОБУЧЕНИЯ В СИСТЕМЕ СРЕДНЕГО ПРОФЕССИОНАЛЬНОГО ОБРАЗОВАНИЯ

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Аннотация. В современных сложившихся социально-экономических условиях страна переживает дефицит высококвалифицированных и коммуникативных специалистов, которые готовы совместно и плодотворно взаимодействовать, сотрудничать в профессиональной деятельности. Поэтому современное профессиональное образование диктует новые правила в подготовке специалистов среднего звена. В настоящее время среднее профессиональное образование должно содействовать условиям по формированию основных типов набора компетенций по подготовке будущего специалиста в своей профессиональной деятельности, где особую роль играет компетентностный подход, раскрывающий будущего специалиста как творческую, коммуникативную личность, готовую к сотрудничеству в своей профессиональной деятельности. Каждый автор и разработчик привносит в педагогический процесс среднего профессионального образования что-то свое, персональное. Некоторые технологии имеют схожесть по своему содержанию, целям и применяемым методам. Так, например, личностно-ориентированные технологии ставят в центр всей образовательной концепции личность обучающегося, предоставление удобных, неконфликтных и не опасных обстоятельств её формирования, осуществления её потенциалов. Иными словами, в образовательном процессе среднего профессионального заведения обучающийся – это никак не пассивный объект обучения, а субъект, который учится целенаправленно, без помощи других, осознавая себя, свои предрасположенности и возможности и являющийся соавтором и равным партнёром педагогического работника в образовательном процессе. В связи с этим превращению обучающегося в субъект образовательной деятельности содействует введение в академическую процедуру интерактивных технологий при этом одной из таких технологий является обучение в сотрудничестве. Авторы статьи показывают свой практический опыт по внедрению технологии сотрудничества в образовательный процесс в виде методической разработки: рабочей тетради «Экономика организации в сотрудничестве» для обучающихся экономических направлений на примере КГБПОУ «Красноярский аграрный техникум».

Ключевые слова: технология сотрудничества, среднее профессиональное образование, образовательный процесс, техникум, рабочая тетрадь, студент-центрированное обучение, работа в команде, личностно-ориентированные технологии.

FUNDAMENTALS OF USING COLLABORATION TECHNOLOGY IN THE LEARNING PROCESS IN THE SYSTEM OF SECONDARY PROFESSIONAL EDUCATION

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Abstract. In the current socio-economic conditions, the country is experiencing a shortage of highly qualified and communicative specialists who are ready to cooperate together and fruitfully, to cooperate in professional activities. Therefore, modern professional education dictates new rules in the training of middle-level specialists. Currently, secondary vocational education should contribute to the conditions for the formation of the main types of set of competencies for training a future specialist in their professional activities, where a special role is played by the competence approach, revealing the future specialist as a creative, communicative person who is ready to cooperate in their professional activities. Each author and developer brings something personal to the pedagogical process of secondary professional education. Some technologies have similarities in their content, goals, and methods used. For example, personality-oriented technologies put the student's personality at the center of the entire educational concept, providing convenient, non-conflict and non-dangerous circumstances for its formation and implementation of its potentials. In other words, in the educational process of a secondary professional institution, the student is not a passive object of training, but a subject who learns purposefully, without the help of others, aware of himself, his predispositions and opportunities, and is a co-author and equal partner of the teacher in the educational process. In this regard, the introduction of interactive technologies into the academic procedure contributes to the transformation of the student into a subject of educational activity. One of these technologies is training in cooperation. The authors of the article show their practical experience in implementing the collaboration technology in the educational process in the form of a methodological development: a workbook “Organizational economics in collaboration” for students of economic training directions on the example of “Krasnoyarsk agricultural technical college”.

Keywords: cooperation technology, secondary vocational education, educational process, technical school, workbook, student-centered learning, team work, personality-oriented technologies.

INTRODUCTION

The topicality of the research issue is proved by the fact that there exists the insufficient quality level of specialists' training in the field of economics and management with the predominance of traditional training technologies in professional educational institutions. Modern training is

focused on the development of the educational process quality improvement, the cognitive potential of the individual, increasing his/her ability to learn. In the current conditions, it is necessary to find an effective way to improve the training program, and at the same time to identify the best technologies, methods and techniques of training. The

arising contradiction between the modern requirements to the quality of teaching Economics and the lack of use of modern pedagogical technologies in the educational process of the secondary professional education institutions (in our research "Krasnoyarsk agricultural technical college") led to the problem of the present study: development and implementation of pedagogical technologies of teaching economic disciplines in secondary professional education. In the current economic conditions, the country is experiencing a shortage of highly qualified and communicative specialists who are ready to work together and cooperate in professional activities. Therefore, modern professional education dictates new rules in the training of middle-level specialists. At present, secondary professional education should contribute to the formation of the main types of set of competencies for training a future specialist in their professional activities. In the preparation of a future specialist, a special role is played by the competence approach, which reveals the future specialist as a creative, communicative person who is ready to cooperate in his professional activities. In the training of secondary professional education there is a large number of the organization of educational processes. Each author and developer brings something personal to the teaching process. Some technologies have similarities in their content, goals, and methods used. For example, student-centered technologies put the student's personality at the center of the entire educational concept, providing convenient, non-conflict and non-dangerous circumstances for its formation and implementation of its potentials. In other words, in the educational process of a secondary professional institution, the student is not a passive object of training, but a subject who learns purposefully, without the help of others, is aware of himself, his predispositions and opportunities, and is a co-author and an equal partner of the faculty member in the educational process. In this regard, the introduction of interactive technologies into the academic procedure contributes to the transformation of the student into a subject of educational activity. One of these technologies is training in collaboration. This issue is widely discussed in modern pedagogical works: Mospanova G.N. uses innovative collaboration technologies and problem technologies at literature lessons [1]; Sorokin Yu. M. analyzes continuous education of teachers: technology of active cooperation [2]; Baranova N. M., Zmushko A. A. devote much time to the innovative technologies use: training in small groups on the methodology of cooperation and e-learning technologies use for teaching mathematics in small groups based on collaboration [3], [4]; Kalimullina O. A. implements the technology of creative collaboration between the teacher and the student audience through educational and practical classes [5]; Makhmuryan K. S. [6], Marina N.K [7], Akhmetshina A.G. [8], Myakisheva I.A [9], Batueva E.V. [10] successfully use the collaboration methodology in the process of foreign language teaching while Volkova N.M. [11] suggests a lesson-conference to be used as the collaboration technology in the system-activity approach at the lessons of the natural-mathematical cycle; Rakhimov Z.T. applies the technology of cooperation in the process of training the future teacher of professional education [13], and Kozina T. A., Abubekarov M. R. consider the technology of training in collaboration as an effective means of forming communicative competence in the training of specialists of the motor transport complex [14].

Training in collaboration in pedagogical science has been used for a long time. According to the point of view of J.Dewey: "learning in collaboration is an important element of the pragmatic approach to education in philosophy, its project method" [15]. Apparently, the concept of learning in collaboration is reasonable according to its own essence. In the pedagogical literature, attention is focused on the system of teaching co-participants in small training groups, in which they interact together, cooperate, according to the technology; such groups have a small number of students. In the pedagogical context, this technology is widely

understood as a technology of collaboration [16].

METHODOLOGY

The object of the study is the educational process of the "Krasnoyarsk agricultural technical college". The research subject is the introduction of collaboration technology in the study of the discipline "Organizational economics". The aim is to implement the collaboration technologies in the educational process in the form of methodological developments as a means of collaboration training with the help of the workbook "Organizational economics in collaboration" for students of economic training directions. To achieve the research goal, the following tasks were solved: a review of scientific and pedagogical literature on the problem of research of collaboration technology was conducted; the organizational and economic structure and pedagogical process of the college was analyzed; the collaboration technology was introduced into the educational process in the form of methodological development: workbook "Organizational economics in collaboration" for students of the technical college; the experimental study of the collaboration technology use in the pedagogical process of the technical school was conducted.

The research basis was constituted by the following research methods: theoretical analysis of pedagogical and scientific-methodical literature on the topic of research, pedagogical design, comparative analysis, conducting pedagogical measurements (survey, interviewing, analysis of educational products), analysis of the organization of the process of teaching Economics in the system of professional education. The introduction of collaboration technology in the educational process to improve the quality of training in economic disciplines of the technical college will be effective if: the teaching process is based on the activity-oriented, practice-oriented, competence-based, student-centered approaches; it reflects the didactic principles of "connection of theory with professional activity" and "connection with life"; the active technologies, such as collaboration, are widely used in the pedagogical process of the technical college.

RESULTS

Understanding of "collaboration" in the educational and professional activities means to work, function together, and assist in a common cause while engaging in interaction and participating in collective work that is taught in a communicative discourse. The collaboration technology makes it possible to interact, with the help of which students contribute to the satisfaction of each other's interests, while maintaining approximate equality in the interaction of the parties. As a result, cooperation means providing partners with mutual assistance to solve a problem in educational and professional activities to achieve a specific goal. At the same time, the interests of all participants in this process are respected. Therefore, considering learning in collaboration, we can say that this technology has an understanding as a collective learning, due to which students interact with each other, jointly developing, producing the latest knowledge, and not getting it ready-made. The goal of the collaboration training is not limited to developing the knowledge, skills and abilities of each student at the appropriate level. The main idea of training in collaboration is learn together, not just do something together. Traditional lectures remain informative in many ways, and not problematic in any way. They lack feedback, discussion, and joint activities. Thus, the collaboration technology of cooperation, or "personal-oriented technology of activation of students' educational activities", helps to eliminate the numerous disadvantages of the classical informative lecture.

Collaborative learning technology has emerged as an alternative to the classical learning system. The activity of students in a team of two to five people on a joint task, the activity of students in the background, united by one idea, is considered to be much more productive than explanatory-illustrative and reproductive methods. The collaboration technology combines three ideas: learning in a team

(learning together with other students of a small group); mutual assessment (evaluating the chances of other students of the group); and learning in small groups (dividing the students of the group into small subgroups). Therefore, the collaboration technology solves according to Radugina A.A. the following problems: “the student is much better trained if he is able to speak out and establish contacts with other members of the group; how well the student can correctly and logically express their speech depends on the ability of students to correctly and logically build written and oral speech; in the course of social contacts between students, an educational community of people who possess certain knowledge and are ready to receive new knowledge in the course of communication among themselves, in collective thought activity is formed” [17].

According to Zuckerman G.A.: “the collaboration technology belongs to the so-called humanistic approach in pedagogy and psychology, the main characteristic of which is considered to be: special attention to the individual, to his individuality; precise focus on the conscious formation of independent critical thinking, and not in the assimilation of ready-made knowledge and their reproduction; ensuring a friendly attitude to the teacher and to each other within and outside of a small group; forming skills of communicative interaction in communication; creating an atmosphere of partnership and equality” [18]. Zuckerman G.A. emphasizes: “in general, the collaboration technology has the following advantages: 1. Not every student is ready to ask a question to the teacher if he doesn’t not understand the new or previously passed material. When working together, as well as when working in small groups, students find out all the questions that concern them from each other. If the need arises, they can resort to a teacher for help. 2. Each of the group members understands that the result of the group depends not only on the information given in the textbook, but also on the opportunity to learn something new and use the knowledge gained in solving specific tasks. 3. Students develop their own point of view; they are trained to defend their own position. 4. Students learn to communicate with each other, with teachers, and acquire communication skills. 5. Students develop a sense of camaraderie and mutual assistance” [18].

Thus, the technology of cooperation allows the student to improve their own level of performance, and not only the ability to work in a team, since the result of the entire group depends directly on each of the group members. Therefore, the other team members are also interested in ensuring that students who fall behind the team improve their own results.

Collaboration technology should be applied if the task is to solve a problem that is not easy to cope with on their own, at a time when students have the necessary information, skill, tools for mutual exchange, when one of the expected learning outcomes is the skill of working in a team. When using the “learning collaboration” technology, teams of students interact with each other during a single session or several weeks in order to learn something new or complete a specific learning task.

The following steps are highlighted in the application of collaboration technology in the classroom: 1. Motivation, the main goal of which is the formation of an internal readiness to fulfill the normative requirements of the educational process at a personally important level. In order to achieve the goal, it is necessary to create conditions for the purpose of emergence of internal necessity of introduction in activity (“I want”); to update the requirements for the student from the educational process (“it is necessary”); to determine the subject boundaries of educational activities (“I can”). The main techniques used at this stage are ‘Motivation’; ‘Psychological training’; ‘Fantastic addition’; ‘Surprise’; ‘Attractive goal’; ‘Delayed guess’; ‘Problem situation’; ‘Epigraph for the lesson’; ‘Speaker’; ‘Dreamer’; ‘Inductor’. 2. Announcement of predicted results. The purpose of this stage is to ensure that students (participants) perceive the value of their activities, i.e. what they are

required to achieve as a result of the training (event) and what the teacher (mentor) expects from them. 3. Providing the necessary information. The third stage is to provide students (participants) with enough information to carry out practical tasks based on it. Here you can use a mini-lecture, reading a handout, or doing homework. In order to save time in the classroom and for the best learning result, it is desirable to provide tasks in writing for preliminary (home) study (advanced task). 4. Interactive exercise or exercises. The goal of the stage is the practical development of the material, achieving the set goals of the lesson. 5. Reflection. As a rule, the result of the organizer’s activity is considered to be a reflexive registration of the work done, i.e., emphasizing the completed method of activity and the acquired, even if not the final, but the intermediate result.

If you rely on this structure of collaboration, then, as a rule, this technology is used largely in the fourth stage and usually takes about 60% of the time and involves: instruction by teacher trainees about the purpose of the task and the sequence of its execution; distribution into groups and the distribution of roles between learners; completing tasks, where the teacher acts as the organizer; displaying the executed results.

Thus, we believe that training in collaboration can solve different tasks in training such as: training in a team; mutual evaluation, training in small groups, and others. Various technologies, including pedagogical ones, are not a guarantee of success in conducting training sessions, since in cooperation the student is represented as the subject of his / her educational activity. Therefore, the two subjects of the same process must act together; neither of them must stand above the other.

As for using the technology of cooperation in the secondary professional education, we should say that at present, the Federal state educational standards of secondary professional education imply the purposeful introduction of new technologies in the educational process that implement a competence-based approach, as the social need for non-standard thinking creative individuals who can be mobile in situations of uncertainty and ready to cooperate is increasing. In the framework of the competence approach, we pay attention to the subject of the analysis of competencies, the FSEF of SPE and identify the following competencies for the collaboration technology in the training direction 38.02.02 “Insurance business (in branches)”: to work in the team; to communicate effectively with colleagues, management, customers; to take responsibility for the work of team members (subordinates), the result of assignments. Thus, the relevance of the collaboration technology use in the system of secondary professional education is substantiated.

When this technology is applied in practice, it acquires a new, important role for the educational process as an organizer of independent cognitive, research, and creative activities of students. Its task is no longer to transfer the sum of knowledge and experience accumulated by mankind. It should help students independently obtain the necessary knowledge, critically comprehend the information received, be able to draw conclusions, argue them, having the necessary facts, and solve problems that arise. As part of this technology application, students in groups of 3-4 people study theoretical material on one of the issues of the topic, then graphically depict the main provisions of this issue in the form of diagrams, tables, drawings, formulas, etc. on a sheet of paper in the Krasnoyarsk agar technical school on the topic “Efficiency and profitability in the enterprise”. In this way, during the presentation, the other participants of the training group working on other issues could, based on their work, briefly and structured outline the material of the lesson. In the future, group forms of work were used to consolidate and control the acquired knowledge. For example, students in pairs or in groups of 4 people perform collages on the topic “Profitability in the enterprise”.

Thus, group work creates favorable conditions for the inclusion of all students in active work in the classroom.

When organizing work in groups, each student thinks and expresses his or her opinion. In groups, discussions are born, different solutions are discussed, and mutual learning takes place in the process of educational discussion and educational dialogue. It is especially important that the group form of work allows you to implement an individual approach in the conditions of mass education, to organize the interaction of students to identify their individual capabilities and needs, thereby improving the quality of modern education. Therefore, in contrast to traditional learning technologies, where the immediate goal of the lesson is to acquire knowledge, develop skills based on memorization, that is, on the mechanism of suggestion of knowledge, skills and abilities. In teaching based on pedagogy, the direct goal is to develop intellectual, spiritual, and physical abilities, interests, and motives, and to develop a scientific and materialistic worldview.

We applied the collaboration technology in the process of teaching economic disciplines. Using the collaboration technology in teaching students an economic profile makes it possible to improve the ability to carry out collective work, to realize their own importance in the role of a business partner. This technology is designed to develop certain high-class business qualities of the future collective employee. So, to achieve the goal, we worked out the methodological development of the workbook "Economics in collaboration" in the study of economic discipline in the training direction 38.02.02 "Insurance business (in branches)" at the "Krasnoyarsk agricultural technical college". The workbook is a kind of textbook that has a special didactic apparatus that promotes independent, team, creative, mental activity of the student on the development of educational material. The use of a workbook in the study of material improves the quality of learning by students, increases the efficiency of the entire educational process by not only individualization, but also by working together in groups. The relevance of using a workbook in the study of economic disciplines lies in the optimal combination of the information content of the workbook with the ability to identify the mental activity of students when they work with the notebook. The textbook in the form of a workbook, has a special didactic apparatus that contributes to the independent work of the student on the development of a discipline, professional module or interdisciplinary course, and is designed to solve a number of the following tasks: formation of concepts; acquisition of practical skills and abilities; formation of students' skills and self-control skills; development of students' thinking; control of the learning process.

In our understanding, the workbook is designed to involve students in cooperation, teamwork, mutual evaluation, to perform tasks together in small groups, to find solutions together while working together in finding new cognitive information. Note that there are types of workbooks such as informative, controlling, and mixed. According to the logic of our research, as a methodological development, we chose such type as a mixed workbook, since we believe it is more appropriate to use workbooks in the educational process. This type of workbook includes two blocks: information and control. The information block includes a new training material, where students cooperate in solving a set of tasks in the course of team work, and the control block includes tasks for independent work of students where students organize team interaction in solving economic tasks, cases, economic dictates, as well as test tasks for checking and consolidating knowledge and skills. The workbook is intended for practical work and border control during the semester in accordance with the requirements of the Federal state insurance service (FSIS), which determines the important place of competencies in the training of specialists in the agricultural sector in the insurance business. According to the structure of the workbook, all tasks are developed for training in cooperation, according to the work program of the professional module "Organizational economics". The workbook contains the following sections: enterprise in

the market economic system (organization-legal entity, enterprise as the main link of the economy); enterprise resources and efficiency of their use (financial results of the enterprise, fixed, working capital of the enterprise and labor resources); results of the company's activity (main technical and economic indicators (TEI) of the company's activity, planning at the enterprise). The workbook is intended for the development of communication skills in the mandatory professional module "Organizational economics". The material of the workbook does not duplicate the content of lectures, but complements and expands the theoretical and practical aspects of professional training in professional competencies during classroom practical sessions and independent work of students. The material of the workbook, by taking into account the set of competencies, meets the requirements of the Federal state educational institution for the field of training: 38.02.02 "Insurance business (in branches)". Using the workbook for the professional module "Organizational economics" will help students not only to learn the material of a particular topic, but also to develop economic thinking, the ability to analyze the phenomena of the surrounding reality and make competent conclusions, as well as to cooperate with other students in the course of solving tasks.

CONCLUSION

In conclusion, we present the implementation and analysis of the results of methodological development in the study of economic discipline for students of economic orientation. According to the logic of our research, as a methodological development, we have developed and implemented the workbook "Organizational economics in collaboration", since we believe it is more appropriate to use this kind of workbook in the educational process to introduce students to the collaboration technology. Analysis of the workbook implementation into the process of training in the professional module "Organizational economics" shows the level of students' strong assimilation of the theoretical foundations and the acquisition of practical skills for solving typical, developing, creative tasks of economic orientation; saving time of the student by performing work directly in the workbook itself and, as a result, the ability to perform a larger number of tasks; using a systematic approach to gradually becoming more complex tasks; forming students' skills and self-control skills; operational control over the formation of students' thought processes; improving the conditions for implementing inter-subject relationships; ensuring regular accounting of students' knowledge and skills, providing an opportunity for operational control and correction; improving the quality of training; the presence of a favorable business atmosphere of interaction between the teacher and students who are studying with each other. During the approbation of the workbook "Organizational economics in collaboration" students were divided into small groups of 5 people, where they performed tasks presented in the methodological development in the form of the workbook "Organizational economics in collaboration". Accordingly, in the course of the studying was focused on the cooperation with each other to perform tasks. 52 students were involved in training in the technology of cooperation.

During these sessions, students are organized into groups of 4 to 6 people to work on the training material, which is divided into sections, topics and tasks. Each student group finds material in its own part. Then the students who are studying the same question, problem, case, but are in different groups, meet and exchange information as experts on this issue. This method is called a "meeting of experts" in collaboration. Then they return to their groups and teach other members of the group everything they have learned. Those, in turn, report on their part of the task. Students are interested in their comrades performing their task in good faith, as this may affect their final assessment. Reports are given on the entire topic individually and the entire team as a whole. At the final stage, the teacher can ask any student of the team to answer any question on this topic. At the end of the section,

all students pass a control test, which is evaluated. Students' results are summarized. The team that manages to reach the highest score is awarded positive points.

At the end of the experimental work we received the following figures:

- the level of mastering economic disciplines increased by 42,5%;
- students' academic performance increased from 35,7% to 46,5%;
- the rate of interaction between students increased by 45%.

Thus, it can be concluded that the use of cooperation technology in the study of economic disciplines is an effective technology for students of economic specialties. The formation of common cultural and professional competences of students required to use in the classroom collaboration technology is proved.

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