



# «Educational company»: Peculiarities of the technology's implementation at different educational levels when forming the economic competencies of future specialists

## «Empresa educativa»: Peculiaridades de la implementación de la tecnología en diferentes niveles educativos al formar las competencias económicas de futuros especialistas

Marina Georgiyevna SERGEEVA [1](#); Elena Petrovna KOMAROVSKAYA [2](#); Lyudmila Borisovna BAKHTIGULOVA [3](#); Elena Valeryevna TABUYEVA [4](#); Pavel Fyodorovich KALASHNIKOV [5](#); Alyona Dmitriyevna GALYUK [6](#)

Received: 16/12/2017 • Approved: 28/12/2017

### Contents

- [1. Introduction](#)
  - [2. Research methods](#)
  - [3. Research results](#)
  - [4. Discussion](#)
  - [5. Conclusion](#)
- [Acknowledgement](#)
- [References](#)

#### ABSTRACT:

*Introduction.* The relevance of the chosen topic is determined by the necessity to train specialists of a new type – constructive, initiative, responsible, full of team spirit, with flexible and economy-oriented mind, able to achieve high results in innovative and business activities and to make independent decisions when faced a choice. Such specialists are crucial for the country's future, its further prosperity. *Research Methods.* The technology of vocational training "Educational Company", developed by Marina Sergeyeva, was tested at each stage of vocational education. The assessment

#### RESUMEN:

*Introducción.* La relevancia del tema elegido está determinada por la necesidad de formar especialistas de un nuevo tipo: constructivo, iniciativa, responsable, lleno de espíritu de equipo, con una mente flexible y orientada a la economía, capaz de lograr altos resultados en actividades innovadoras y comerciales y toma decisiones independientes cuando te enfrentas a una elección. Tales especialistas son cruciales para el futuro del país, su mayor prosperidad. *Métodos de investigación.* La tecnología de la formación profesional "Educational Company", desarrollada por Marina

involved three levels: value-motivational, activity-cognitive and reflexive-transformative. *Research Results.* To define the level of the graduates' economic competencies, three criteria were proposed: cognitive, personality-based and activity-creative. Three levels (low, average and high) were considered, with each of them being disclosed through a system of empirical indicators that reflect the degree of formation of a certain component. For each criterion, seven indicators were singled out, which helped to assess the conformity of graduates of vocational education institutions with economic imperatives. *Discussion.* The students' level of economic competencies was determined according to three criteria: cognitive, motivational-personal and activity-creative. Key, professional and additional economic competencies were also taken into account at different stages, which allowed us to carry out a comparative analysis of the students' economic competencies in experimental and control groups. The testing of the technology "Educational Company" at different educational levels involved 565 vocational students. The study proved the effectiveness of the developed level criteria (including low, average and high levels) and indicators of the students' economic competencies formation when assessing the graduates' conformity to economic imperatives. The materials given in the article can be useful for vocational teachers, parents and methodologists adapting the graduates to rapidly changing socio-economic reality. *Conclusion.* The revealed practical peculiarities of imitation training methods make it possible to use the components of a competitive specialist model in the educational process; to fulfill the teacher's potential in improving his/her pedagogical skills; to implement the system of imitation methods underlying the technology "Educational Company".

**Keywords:** future specialist, educational levels/stages, multilevel criteria and indicators of the formation of graduates' economic competencies.

Sergeyeva, fue probada en cada etapa de la formación profesional. La evaluación involucró tres niveles: valor-motivacional, actividad-cognitiva y reflexivo-transformador. *Resultados de la investigación.* Para definir el nivel de las competencias económicas de los graduados, se propusieron tres criterios: cognitivo, basado en la personalidad y creativo en la actividad. Se consideraron tres niveles (bajo, promedio y alto), cada uno de los cuales se divulga a través de un sistema de indicadores empíricos que reflejan el grado de formación de un determinado componente. Para cada criterio, se seleccionaron siete indicadores, que ayudaron a evaluar la conformidad de los graduados de las instituciones de educación vocacional con los imperativos económicos. *Discusión.* El nivel de competencias económicas de los estudiantes se determinó según tres criterios: cognitivo, motivacional-personal y actividad-creativo. Competencias económicas clave, profesionales y adicionales también se tuvieron en cuenta en diferentes etapas, lo que nos permitió llevar a cabo un análisis comparativo de las competencias económicas de los estudiantes en grupos experimentales y de control. La prueba de la tecnología "Educational Company" en diferentes niveles educativos involucró a 565 estudiantes vocacionales. El estudio demostró la efectividad de los criterios de nivel desarrollado (incluyendo niveles bajos, promedio y altos) e indicadores de la formación de competencias económicas de los estudiantes al evaluar la conformidad de los graduados con los imperativos económicos. Los materiales dados en el artículo pueden ser útiles para profesores de formación profesional, padres y metodólogos que adaptan a los graduados a la realidad socioeconómica rápidamente cambiante. *Conclusión.* Las peculiaridades prácticas reveladas de los métodos de entrenamiento de imitación hacen posible usar los componentes de un modelo de especialista competitivo en el proceso educativo; para cumplir con el potencial del maestro para mejorar sus habilidades pedagógicas; para implementar el sistema de métodos de imitación que subyace a la tecnología "Empresa educativa".

**Palabras clave:** futuro especialista, niveles / etapas educativas, criterios multinivel e indicadores de la formación de las competencias económicas de los egresados.

## 1. Introduction

Postindustrial society marks an incipient transition to a new type of civilized development, which is connected not only with the technological revolution, but also with the modernization and restructuring of the vocational education system. The influence of such factors as the globalization processes in education, the transition to an innovative training system, the radical changes in vocational courses and the creation of a continuous education system allows regarding economic studies as a component of *global individual education* in the vocational education system. The socio-economic situation in Russian society has revealed processes which prove that the dynamics of economic changes exceed the person's adaptation abilities. The acquired knowledge and economic competences formed during the training period are limited; the learned norms and values do not become reference points in the changing world and are re-evaluated. The changes taking place in Russia have revealed a serious shortage in specialists who know how to make decisions within free-market economy. There is a growing need for such people.

An integral part of the modern education is its economic component, represented by economic knowledge and skills of economic thinking which "mature" in the person's mind throughout

his/her life and allow him/her to interact with the social environment; contribute to the active citizenship development; help to assess an economic situation and manage it in adequate ways. Training specialists who are competent enough to be successful in the free-market economy conditions becomes an urgent task of the modern education (Spaulding, 1978).

According to the Concept of Long-Term Social and Economic Development of the Russian Federation (that is expected to be fulfilled by 2020), the state has to introduce economic reforms and develop the market relying on the younger generation. The society is interested in competitive specialists with ability for creative problem solution, flexible adaptation to the changing life conditions, who know the foundations of market economy, management and marketing. They should also be familiar with innovative methods of enterprise development (Percival & Ellington, 1984).

The need for continuous economic education, both for economic and non-economic specialties, is caused by the necessity to form a correct understanding of economic reality, the fundamental laws of economic life, the global and national trends of economic development. Another important reason is a demand in highly competent specialists in all production areas whose competencies are formed during the training period. Besides, the graduates of vocational education institutions (VEI) should rapidly adapt to dynamically changing social and economic conditions and new labour market requirements which concern the employee's personality: competitiveness, mobility, activity, independence, competence, efficiency, responsibility, and qualities allowing a person to make decisions in riskful situations.

In the modern socio-economic context, the continuous economic education becomes more and more important for the formation and development of postindustrial society. Innovative trends of world development cause changes in the continuous economic education, which can be presented in the following way (Sergeyeva, 2015):

- the need to prepare people for the rapidly changing life within accelerated economic development;
- the formation of economic thinking and economic skills contributing to rational behaviour, the creation of prerequisites for further professional economic training and practical economic activities;
- the need to improve the level of citizens' readiness to make the right "market economy" choice;
- the development of communication and tolerance factors within more and more active economic cooperation.

In the vocational education system, a creative approach must be expressed more clearly, involving an increased emphasis on the imitation of future professional activity in the learning process. Therefore, it becomes **relevant** to study and master imitation methods of teaching. The new requirements imposed by employers stimulate the younger generation to generate an innovative motivation, work behaviour and modern way of thinking. This presupposes a new quality of the vocational education system and sets new priorities, which are to provide the economy with the skilled personnel and to bring up tolerant and educated young people aimed at self-development and self-realization.

The historical prerequisites for the emergence of economic education were studied by L.I. Abalkin, M.I. Voeykov, N.D. Kondratyev, D.S. Lvov, M.V. Manevich, I.T. Pososhkov, J.A. Schumpeter and others.

P.P. Blonsky, V.P. Vakhterov, P.F. Kapterev, S.A. Levitin believed that economic knowledge, as well as socio-economic one, is necessary for every educated person.

Various issues concerning the economic education of schoolchildren and students of vocational education institutions are considered in the works by S.G. Strumilina, A.F. Amenda, N.P. Ryabinina, S.Ya. Batysheva, N.A. Tomina, etc.

Certain aspects of the organization of school economic education are analyzed by V.S.

Avtonomov, O. Yu. Baraeva, L.S. Grebnev, E.V. Kozlova, A.A. Mickiewicz, R.M. Nureyev, B.A. Raizberg, A.S. Prutchenkov, E.N. Travin, B.P. Shemyakin, and others.

Such scholars as Yu. K. Vasilyeva, V.A. Polyakova, L.N. Ponomareva, V.D. Simonenko, B.A. Raizberg and A.S. Prutchenkova consider the theory and practice of economic education in comprehensive schools.

The methods of economic education are described and enriched by V.P. Maksimov, O.I. Menshikova, V.V. Nikitin, N.M. Pliskevich, B.A. Raizberg, A.S. Prutchenkov, I.E. Rudakova, A.M. Smolkin, etc.

V.A. Adolf, D.M. Zakharkin, Yu. Ya. Olsevich, I.G. Ryabova, I.A. Sasova and T.S. Teryukova are among those who study the issues of training and professional development of teachers within the economic education.

Theoretical and methodological issues concerning the provision of economic training for young people are explored by L.S. Blyakhman, V.D. Popova and K.A. Ulybin. They note that these aspects need to be considered since comprehensive school.

V.I. Eroshina, E.D. Novozhilova, I.A. Sasovoi and O.N. Tomina emphasize the dialectical relationship and unity of labour and economic education.

In the works by A.F. Amenda, N.P. Ryabinina and V.K. Rozov the economic education is regarded as one of the most important characteristics of a person's readiness for independent activity in the modern world.

The scientific interest to the problem is intense, and the results are considerable. However, the analysis of literature has shown that most researchers do not pay due attention to the *development of continuous economic education at different levels of vocational education*. So far, the structure and content of continuous economic education have not been determined with regard to the levels of vocational education; the opportunities of innovative technologies and vocational training tools have not been adequately implemented for the purposeful formation of students' economic competencies; the effective model of their formation has not been developed with regard to the specialty and the educational level. The **aim** of this article is to reveal the features of the technology "Educational Company" at different stages of vocational education in the free-market reality. The **materials** of this article can be useful for teachers working in vocational education system and using the technology "Educational Company", which is designed to train an economically competent specialist needed on the labour market.

---

## 2. Research methods.

Mass development and use of teaching technologies began in Europe and the USA in the 1960s – 1970s. It happened mostly due to the works of American education psychologist Benjamin Bloom (Bedenko & Sergeyeva, 2012). F. Percival and H. A. Ellington point out that the term "technology in education" indicates any possible means of providing people with information (Hug, 1985). So technologies in education are represented by different audiovisual equipment: television, image projectors, etc.

Many foreign researchers distinguish 4 positions of scientific interpretation and implementation of the term "pedagogical technology":

- pedagogical technologies as A MEANS, i.e. as production and application of methodological tools, instruments, educational equipment and technical means in the teaching process (Bloom & Krathwohl, 1956; Mitchell, 1978);
- pedagogical technologies as A METHOD, i.e. as a communication process (method, model, technique of solving educational tasks) based on a certain algorithm, programme or system which should improve the relationship between the participants of pedagogical process (Korzhuiev & Sergeyeva, 2015; Lomakina & Sergeyeva, 2015);
- pedagogical technologies as A RESEARCH AREA, i.e. as a vast field of knowledge resting upon

the data which are obtained and used in social, managerial and natural sciences (Firsov & Sergeyeva, 2010; Korzhuyev & Sergeyeva, 2015);

- pedagogical technologies as A MULTIDIMENSIONAL NOTION, i.e. as a many-dimensional process needing a multiple-aspect approach (Gray & Herr, 2000; Gray & Herr, 1998).

D. Finn notes that it is very naïve to regard a technology as only a complex of different equipment and teaching materials. It is much more than that – an organizational method, a way of thinking about materials, people, institutions, models and systems requiring the cooperation of *vivo* and *techno*.

Having analyzed more than 100 sources related to the studied definition, P. D. Mitchell concluded that the pedagogical technology is a practical and theoretical education area linked with all the aspects of pedagogical systems' organization. He also indicated that the mentioned technology is connected with resource distribution – a procedure aiming to achieve specific and potentially reproducible results (Gray & Herr, 1998).

UNESCO proposes a wide approach – pedagogical technologies. This is a systematic method helping to plan, use and assess the whole teaching-and-learning process by considering human and technical resources (including their cooperation). The aim is a more effective education form.

The technology of professional training "Educational Company", developed by M.G. Sergeyeva, was tested at each vocational education level in a three-stage experiment (Sergeyeva, 2015).

The first stage is *value-motivational*. It includes the fundamental improvement of the experimental work on the scientific and methodological-pedagogical support, which helps to form the students' economic competencies; determination of factors and conditions affecting the effectiveness of this process; description of criteria and indicators relating to the students' economic competencies; diagnostic materials evaluation (questionnaires, tests, observation schemes, assessment and self-assessment scales, etc.); development of a targeted integrated programme of scientific, methodological and pedagogical support which favours the formation of the students' economic competencies within professional training; instructive and methodical seminars, both via theory and practice, for managers and teachers. At this stage, the focus is on developing the students' *key economic competencies*.

This stage resulted in the following: positive decisions of administrative officials, pedagogical and scientific-methodological councils of educational institutions on the proposed experiment; approval of the experimental programme; a set of regulatory and administrative documents elaborated for the experiment; a complex of diagnostic techniques and materials; plans for theoretical and methodological seminars, meetings and classes on economic education; diagnostic data on the level of students' economic competencies; the list of difficulties occurring in the educational process; psychological and methodical readiness of teachers and their immediate superiors for experimental activities.

The second stage is *activity-cognitive*. At this stage, the following was achieved: implementation of comprehensive targeted programme forming the students' economic competencies; carrying out of scientific and methodological-pedagogical support of the programme's implementation; monitoring of the students' economic efficiency; correction of the research methods; summarizing of intermediate experimental results at pedagogical councils, scientific and methodological seminars. Besides, the reasons for the deviation from the predicted result were studied and the necessary measures were taken to bring the educational system in line with the experimental model. At this stage, the main efforts were focused on improving the students' *key economic competencies* and developing their *professional economic competencies*.

This stage involved the following methods: implementation of activities in conformity with the integrated target programme; questioning and testing of students, managers, teachers and representatives of enterprises; monitoring; performance analysis; conversations; provision of new economically oriented professional experience; creation of success situations, etc.

The third stage is *reflexive-transformative*. It consists in the following: assessment of the effectiveness of our theoretical model, the concept and the target complex programme; study and analysis of the effectiveness of the students' economic competencies formation in control and experimental groups; adjustment of the content, forms, methods and means of scientific, methodological and pedagogical support for the students' economic competencies formation; introduction of the tested model's elements into the learning process within other educational institutions; predicting the possibility of sharing the experimental results with other educational institutions; reports at scientific and practical conferences; conducting master classes for people who work in universities, colleges and lyceums, along with obtaining expert conclusions on the scientific and methodological significance of the research; preparation of scientific papers and monographs, summarizing the experimental results. At this stage, the *key and professional economic competences* were finally formed and *additional economic competencies* were developed.

The research methods used at this stage were analysis, synthesis, comparison, generalization of empirical data; pedagogical observation; conversation, opinion poll; expert review; analysis of the results of the graduates' practical training and early independent professional activity, which was aimed to determine the level of their economic competence.

---

### **3. Research results.**

To determine the level of the graduates' economic competencies (low, average or high), three criteria were proposed: cognitive, personality-based and activity-creative. Each of them is disclosed through a system of empirical indicators that reflect the degree of formation of a certain component. We singled out seven indicators for each criterion, which allowed us to assess the conformity of a VEI graduate (as a specialist) to economic imperatives.

The *cognitive criterion* reflects the range of the specialist's economic knowledge and presupposes that students who acquire this knowledge (information about economic laws, economic reality, economic research methods, ways of forming economic competence) will be able to assess real economic situations, use appropriate data to resolve them and develop economic competence in the self-education process. As indicators of the *cognitive criterion*, we propose the following:

- knowledge of economic terms and concepts, ability to explain their meaning;
- interest in the contemporary economic problems;
- ability to plan expenses;
- application of knowledge to characterize economic problems;
- the ability to correctly analyze economic problems and establish the cause-and-effect relationships between them;
- the ability to identify the patterns of the market mechanisms' performance;
- application of economic knowledge for solving stereotyped and non-standard tasks.

The low level of VEI graduates' economic competencies in accordance with the cognitive criterion means that the student has limited theoretical knowledge, shows no connection between his/her economic knowledge and practical activity, etc. The average level is characterized by the personal inability to explain the meaning of economic terms and concepts, transfer knowledge to practical activity without the teacher's help, etc. At the high level, the trainee demonstrates independence when using economic knowledge and concepts, can explain their meaning, is able to creatively apply economic knowledge in real economic situations, etc.

The *personality-based criterion* reflects professionally significant motives and values of personality, his/her positive attitude to mastering economic knowledge and skills, the need for their application in practical activities, as well as economically significant personal qualities: frugality, independence, rationality, diligence and initiative, which allows the specialist to defend

his/her position in making economically justified decisions. The indicators are the listeners' attitude to the economy, to the economic nature of social interaction, activity, independence and creative expression of the individual's subjective position in professional activity. The low level of VEI graduates' economic competencies means that the trainee has poor entrepreneurial ethics and low cognitive interest, does not see the need for careful, provident attitude to material resources, etc. With an average level of the formation of economic competencies, the trainee understands the need to form economic competencies, has an unstable situational need for self-realization in economic relations, is inconsistent in retrenchment, and so on. The high level of economic competencies means that the trainee has a stable positive motivation for improving economic knowledge, focuses on self-development, tries to be frugal with money both in an educational institution and at home, treats material resources in a reasonable way, etc.

The *personality-based criterion* has the following indicators:

- adherence to retrenchment in the educational institution and at home (frugality);
- planning and regulation of behaviour in economic situations (independence);
- effort calculation and the implementation costs (rationality);
- performance quality (diligence);
- efficiency of work and ability to solve difficult economic situations (entrepreneurial spirit);
- the need for economic activity as a necessary prerequisite for sustainable development of society and production;
- Understanding the need for economic competency formation.

The *activity-creative criterion* reflects the existence of economically oriented skills that enable the organization to fulfill economic activity, identify difficulties and find ways to remove them; involves a specialist in the economic interaction between society and production; characterizes the activity's direction regarding its conformity to the set of social requirements needed for reasonable economic behavior, as well as to effective economic activity in modern conditions. We developed the following indicators of the *activity-creative criterion*:

- the ability to analyze economic situations and find ways to improve their effectiveness;
- the ability to transfer knowledge into practice;
- the need for external guidance in economic activities;
- the ability to prioritize the achievement of results in economic activities;
- independence in setting goals and choosing ways to achieve the goal;
- the ability to model economic activity;
- preference for innovative projects.

The low level of VEI graduates' economic competence within the *activity-creative criterion* means that the student cannot analyze economic situations independently, is not able to plan his/her expenses in a rational way. At the average level of economic competencies formation, the learner can analyze economic situations with a teacher's help and without seeing the possibilities for increasing their effectiveness. Those who are at the high level of economic competency are able to independently analyze economic situations and find ways to increase their effectiveness, etc.

---

## 4. Discussion

The level of the students' economic competences (LSEC) is defined by three criteria: cognitive, motivational-personal and activity-creative. *Key, professional and additional economic competences* at different levels are taken into account. This will allow carrying out the comparative analysis of the students' economic competences in the experimental and control

groups.

The total LSEC has been calculated using our methods and varied from "0" to "10".

Our aim was to poll the students of the experimental and control groups. We have worked out a questionnaire which includes 100 special and informative questions (open-ended, closed and mid-open). The results may be seen in Table 1.

**Table 1**  
The respondents of the diagnostic poll  
(the beginning of the motivational value-oriented stage of the experiment)

<b>Respondents</b>	<b>Questioned in total</b>	<b>Male</b>	<b>Female</b>
Number (people)	565	206	359
Number (%)	100	36,5	63,5

The methods of analyzing the questionnaires implied evaluating the quantity of the students' chosen answers in a formalized way (in numbers and in percent) as well as calculating the number of variants chosen by each group (according to their year of study, gender and age). The questionnaire results' analysis was organized separately for each group and each educational institution uniting several groups.

The generalized questionnaire results have shown that the variation of the students' LSEC level according to the motivational value-oriented criterion is not significant in the polled groups. The level in female groups (6, 8 points) is slightly higher than in male groups (6, 7 points). The average level among all respondents (565 people) is estimated to be 6, 75 points.

Our research has allowed us to make the following conclusions:

- an important constituent of economic competences is presented by the economic knowledge and the economic values of the future specialists;
- the students are worried not only about global economic issues but also about their personal cooperation with society and market. However, we may consider the students' economic awareness to be at the average level;
- the level of the students' economic knowledge and values in both experimental and control groups is not high. This may be explained by occasional formation of economic competences in vocational education institutions. Moreover, there is no practical professionally-oriented economic activity.
- the differences in LSEC in gender groups are less significant than in those groups which were divided according to the year of study. Female respondents were likely to have a more emotional approach to economic issues and a more optimistic and responsible attitude to the society in comparison with the male respondents' realistic attitude. Graduate groups tend to have a more mature and realistic view to the regional economic situation. Moreover, they show more confidence in evaluating their own activity. This may be explained by the increase in professional and personal confidence during the period of work experience internship.
- the research discovered the students' low activity in those matters which require formulating the reasons, examples and suggestions on one's own. This may indicate the absence of an active economic position and the inability to reflect, predict and analyse.
- the original LSEC of the participants (without dividing them into groups according to their gender and year of study) appeared to be close, with average and low LSEC apparently dominating.

Basing on the students' oral and written answers, observing the learning process, speaking to the students and the teachers of the educational institutions we have concluded that the graduates' LSEC is insufficient. Besides, we have found out the main barriers which hinder the specialists' effective economic qualification. These barriers are diagnostic, research and



methodological, cognitive, psychological, axiological and cultural, as well as the officials' and the teachers' insufficient qualifications for managing the process of forming the students' economic competences.

The empirical data which we acquired during the motivational value-oriented stage of the experiment became the basis of the activity-cognitive stage.

At the initial (preparatory) phase of the activity-cognitive stage of the experiment we have organized the activity for temporary creative groups, scientific-theoretical and educational seminars, research and methodological boards, teachers' councils. This was aimed at creating the teachers' and the social partners' positive attitude to the experiment, increasing the teachers' and the directors' economic and research methodological competence within the educational institutions. The meetings, seminars and round-table discussions have been dedicated to the following topics: "Pedagogic technology in education: its subject matter and its difference from methodology", "New pedagogic technologies and the problems of applying them to the educational process", "Using innovative technologies within the specialists' economic training", "Organising the creative and the research activity of students of economic specialties", "The teacher's economic competence as a condition for the specialists' successful economic training", etc.

In the Department of Methodology we collected the research literature allowing a teacher to study the fundamentals of innovative technologies without help, to plan the ways of their testing and application depending on a teacher's personal convictions and his/her individual style of pedagogic activity. Moreover, the collected sources allow solving the problems of the students' economic competences formation by using innovative technologies.

Organising the research methodological activity of the "subject-cyclic" commissions (SCC) aimed at economising the contents of the learning process has become the most important element of our experiment. By 'economising' we mean economics as a complex, integrative science which influences the learning process components in a value-oriented way. These components – aims, contents, teaching and educational methods, the organization and the management of education and learning – are legally defined by the vocational education programme and the Federal State Education Standards (FSES) in the sphere of higher vocational education (HVE), secondary vocational education (SVE), primary vocational education (PVE) for a particular profession. Therefore, we achieved the following results:

- Determined the priorities in forming the economic competences (knowledge, skills), found out the ways to optimize the interrelation between the subject-cyclic commissions, tutors and educational authorities.
- Defined the levels, ways and necessary pedagogic means to economize and professionalize the training activity contents.
- Developed the methods of defining the real level of economic knowledge and skills in the context of training activity.

We formulated the strategic invariant aims for each stage of forming the students' economic competences in colleges and higher education institutions. (see Table 2)

**Table 2**  
Strategic aims for economizing the contents of the students' vocational education in colleges and higher education institutions

<b>The stages of forming the students' economic competences</b>	<b>Strategic aim</b>
Motivational value-oriented (1st – 2nd year)	Acquiring the theoretical nucleus of the basic knowledge and skills which compose the cognitive basis for the students' economical competence

Activity-cognitive (2nd – 3rd year)	Learning the generalized ways of the economic activity as an instrumental basis for the economic competences
Reflective-modifying (3rd – 4th year)	Controlled self-education based on the acquired knowledge and skills
Evaluative (4th year, immediately before graduation)	Diagnosing and evaluating the real level of economic knowledge and skills

The main phase of the activity-cognitive and the reflective-modifying stages of the experiment appeared to be the most complicated part of our research work, since we were to unite all the elements of the theoretical and diagnostic research into one wholesome consistent system and to implement the theoretical model of forming the graduates' economic competences.

During the activity-cognitive stage we introduced a new imitation method in the form of a case study "Educational Company". At this stage we chose a range of imitation educational methods and the pedagogical conditions for their application in the process of training the specialists at each educational level. Besides, we defined the contents and technologies of using the new "Educational Company" method. We also used a one-subject model when we introduced economic project teams and associations. During the activity-cognitive stage the classes in the control groups were held according to the common curriculum.

The aim of the **forming stage of the experiment** is to form the students' economic competences in the system of continuing vocational education via realizing the author's "Educational Company" technology.

*The economic competence principle*, which was developed by M.G. Sergeyeva, states the correlation between knowledge as information and knowledge as an activity. This correlation is necessary for the formation of a competitive individual within vocational education. While defining the graduate's economic competence in a higher educational institution we focused on the notions "competence", "competency" and "professional competence", which define the terminological field of the research and allow characterizing the notion "the graduate's economic competence in a higher education institution".

*Economic competence* is regarded as an integral qualitative professional characteristic of an individual. This characteristic includes economic competences which form the economically significant personal qualities (competitive ability, initiative, mobility, entrepreneurial spirit, independence in making decisions, critical thinking, etc.) and reflect the readiness and the ability for the effective fulfillment of the professional activity in different economic areas and segments. The person makes his/her professional career considering his/her individual values and their compliance with the society development strategies, moral fundamentals and rules.

At the same time the *economic competences* compose an open system of knowledge, skills, economic practice experience and personal responsibility. This system becomes active and is enriched in the process of professional activity as a VEI graduate has to deal with real economic problems.

We analyzed the competences classification in different aspects (the context of the tasks: cultural and professional; the level of competence prevalence: corporate, managerial, professional; the development level: threshold, grading; the contents: cognitive, personal, functional, social etc.). This allowed us to develop the students' *economic competence structure* which includes the following economic competences (Sergeyeva, 2015):

- key competences, which reflect the basic economic knowledge and are necessary for adapting

to the professional activity in the free-market reality;

- *professional* competences, which imply the ability to implement the economic knowledge in practice, to evaluate new economic situations and to make only those decisions that can be regarded as economically advantageous;

- *additional* competences, which mean the ability for creative economic behaviour, effective behaviour on the job market, continuous economic self-education, etc.

We based this economic competence structure on choosing the discipline modules' contents: the key competences are formed by general humanitarian and socio-economic disciplines; professional competencies – by general professional disciplines; the additional competencies – by special disciplines (professional modules). The developed structure and the contents of economic competences are presented within the framework of economic and non-economic specialties at different vocational education levels.

As a result, we distinguished three **levels** of continuous economic education in the vocational education system (basic, professional, additional) which allow the students to carry out necessary job tasks and to hold proper positions after graduation (Lomakina & Sergejeva, 2015).

The basic economic education level in the vocational education system aims to form the knowledge and the patterns of competent consumer behaviour within the free-market economy, to shape initial differentiated economic knowledge with an opportunity to use it in everyday life.

The professional economic education level in the vocational education system aims to prepare the students for certain activities which require professional economic qualifications (timekeepers, rate-setting technicians, clerks, executive assistants etc.)

The additional economic education level in the vocational education sphere aims to make the graduates ready for actual economic practice in the creative approach context: in marketing, advertising, commercial business; when analyzing business activity of a certain enterprise; when finding out the advance reserves, making plans and forecasts; when generating effective ideas in unusual economic situations; when teaching activity in the sphere of economic disciplines; within scientific research activity.

Thus, the above-described levels of continuous economic education (basic, professional, additional) in the vocational education system are congruent with the economic competences (key, professional, additional) and imply passing from one stage of economic education to another preserving the continuity, universalism and unity of vocational education, taking into account the psychological and age-dependent personal development, allowing the graduates to occupy proper positions after completing their studies at a certain level of continuous economic education.

The experimental activity which we organized in vocational education institutions have allowed describing the criteria and the indices of the students' economic competences formation; adapting to and mastering various methods of diagnosing the students' economic competences at different study levels; finding out the original level of the graduates' economic competences in experimental and control groups; working out a target comprehensive programme as a basis of methodological and pedagogical support for the students' economic competences formation; ensuring that the experimental group students achieve a higher economic competence level than the control group students.

The process of forming the students' economic competences (key, professional and additional) is gradual (i.e. reflects the procedural side) and level-based (i.e. characterizes the hierarchic aspect), since the students are incapable of mastering the whole complex of economic competences at the same time (Korzhujev & Sergejeva, 2015).

The acquired data indicate that by verifying the graduate's economic competences formation process we may detect steady positive dynamics. The analysis of the results shows a significant increase in economic competences formation in the experimental groups compared to the

control groups. Thus, in the experimental groups the number of students with a low economic competence level has decreased from 62% to 8%; in the control groups it has decreased from 60% to 21,9%. On the average, the number of students with high economic competences has grown by 23,6% in the experimental groups compared to 11,8% in the control groups (Sergeyeva, 2015).

The research proves that the graduates' competences in the experimental groups tend to increase at all levels of vocational education. However, the PVE institutions mark the lowest increase in economic competences in comparison with the HVE and the SVE institutions. We explain it by a short activity-cognitive stage and a practically absent reflective-modifying stage at the PVE institutions.

Taking into account the Federal Law of 29 December 2012 No. 273-Ф3 "On Education in the Russian Federation", which came into force on the 1st of September 2013, the PVE level, being the constituent part of the SVE level, meets the requirements for training employees with different qualification (Firsov & Sergeyeva, 2010).

---

## 5. Conclusion

According to the results of the research, we can make the following conclusions:

- since Russia has turned to the market economy, there has been a strong need for the specialists' economic qualification to suit the new socio-economic conditions. This problem is possible to solve by organizing a continuous vocational education in the vocational education system. The "Educational Company" technology serves as a useful tool for this purpose, since it provides the imitation of the future professional activity in the classroom;
- continuous economic education makes a compulsory part of continuous vocational education. In the free-market conditions it is aimed at forming a competitive, high-demand specialist having all the necessary economic competences which are formed in the process of economic education;
- the levels of continuous economic education (basic, professional, additional) are congruent with the economic competences and provide students with an opportunity to occupy proper posts after completing their studies at a certain level of continuous economic education;
- the teacher's and the students' learning kit which has been worked out in the research process involves a step-by-step formation of the economic competences in the conditions of a continuous economic education;
- the developed level criteria (low, average, high) and indexes of the students' economic competences formation have proved the conformity of VEI graduates to economic imperatives.

The "Educational Company" teaching technology, which has been tested during the research process, is regarded as a system of imitation methods, since it satisfies all methodological requirements (a certain form and management of the students' learning activity; specific knowledge perception by the students; educational information management and exchange between the students and the teacher; the stimulation and the motivation of the students' education; the control over the learning process effectiveness).

The "Educational Company" provides the teacher with the following **opportunities: to organize the learning process** (to project the learning activity elements at the workplace; to create an imitation of the student's real future professional practice, etc.), **to set the pedagogical education goals** (to reduce the gap between the educational process and the job market requirements; to set new interrelations between the students and the teachers, etc.), **to solve pedagogical tasks** (to improve the quality of training a competitive specialist for the job market; to increase his or her ability to adapt to the new kinds and conditions of the professional activity, etc.).

The algorithm of working out the "Educational Company" imitation method sets an interrelation between the stages (the creation of the "Educational Company", its functioning and the creation

of an automated workplace), the achieved goals and the applied education methods.

A step-by-step evaluation of the students' activity in the "Educational Company" was initially realized by creating an expert group from the best students (5-6 people) according to the worked out criteria (the students' self-guided work (discipline and the ability for self-control, exactitude in work, work organization, etc.); work in team (communication skills, presentability, cooperation with colleagues, etc.); interaction with the external environment (the level of using the telephone, fax machine, personal computer, e-mail, the Internet, etc.)). The students' activity was also assessed by their teachers, an expert and the students themselves.

Among the active educational methods, the imitation educational methods have the greatest prospects for training the qualified workforce who will be competitive on the job market. The worked out peculiarities of applying the imitation methods allow:

- realizing the constituent models of a competitive specialist in the learning process: the students' professional characteristics which would correspond with the State standard in a certain specialty as well as personal qualities (psychological, intellectual, behavioural);
- fulfilling the teacher's potential in improving his or her pedagogical skills;
- applying the system of imitation educational methods which may be observed in the "Educational Company" teaching technology.

## Acknowledgement

The authors of the article convey deep gratitude to Marina Georgiyevna Sergeyeva, Doctor of pedagogical sciences, the academic supervisor of the Russian Foundation for Humanities projects (No. 12-06-00054 "The didactic peculiarities of developing and improving continuous economic education" (2012-2014) and No. 15-06-16002 "The scientific basis for continuous economic education in the system of vocational education" (2015)), the Professor of the Department of Social Pedagogy, the Institute of Foreign Languages, Peoples' Friendship University of Russia, for her valuable guidance and the research experience acquired during the realization of the project.

---

## References

- Bedenko N.N., & Sergeyeva M.G. (2012). The system of evaluating the quality of continuous economic education. Kursk.
- Bloom B.C., & Krathwohl, D.R. (1956). Taxonomy of educational objectives: Handbook I: The cognitive domain. New York: McKay.
- Firsov G.A., & Sergeyeva M.G. (2010). The Russian Federation "Education Law": its past, present and future. *Alma mater*, 10, 17- 23.
- Gray K., & Herr E. (1998). Workforce education: The basics. Needham Heights, MA: Allyn and Bacon.
- Gray K., & Herr E. (2000). Other ways to win: creating alternatives for high school graduates. Thousand Oaks, California: Corwin Press, Inc. A Sage Publications Company.
- Hug W.E. (1985). Educational Technology: Local Center. In: The International Encyclopedia of Education. V. 1-10. Oxford: Pergamon Press.
- Korzhuyev A.V., & Sergeyeva M.G. (2015). Pedagogic search as a dialogue between traditions and innovations. Moscow: Moscow Institute of Linguistics.
- Korzhuyev A.V., & Sergeyeva M.G. (2015). The schemes of comprehending, explaining and forecasting the pedagogic reality. Kursk: Regional Financial Economic Institute.
- Lomakina T.Y., & Sergeyeva M.G. (2014). Modern technologies of vocational education under the circumstances of switching to competence-oriented education. Application to a monthly theoretical and scientific research magazine *Secondary Vocational Education*, 8, 6 – 14.

- Mitchell P.D. (1978). Educational Technology. In: D. Unwin, R. Mc-Aleese (ed.): The Encyclopedia of Educational Media Communications and Technology. London: Macmillan.
- Percival F., & Ellington H. A. (1984). Handbook of Educational Technology. London: Cogan Page Ltd.
- Sakamoto T. (1974). The Roles of Educational Technology in Curriculum Development. Curriculum Development by Means of Educational Technology. Centre for Educational Research and Innovation, OECD.
- Sergeyeva M.G. (2010). Pedagogic security of economic education quality. *Quality. Innovations. Education*, 8, 29-34.
- Sergeyeva M.G. (2011). Continuous economic education under the conditions of economic and educational priorities in renovated Russia. *ETAP: Economic Theory. Analysis. Practice*, 5, 117-128.
- Sergeyeva M.G. (2015). The development of the teacher's pedagogic skills under modern conditions. Moscow: Moscow Institute of Linguistics.
- Sergeyeva M.G. (2015). The graduate's competence model under the conditions of continuous economic education. Moscow: Moscow Institute of Linguistics.
- Seyfried E., Kohlmeyer K., & Furth-Riedesser R. (2000). Supporting quality in vocational training through networking. CEDEFOP. Luxembourg: Office for Official Publications of the European Communities.
- Silber K. (1972). The Field of Educational Technology: A Statement of Definition. *Audiovisual Instruction*, 8, 18-30.
- Spaulding S.C. (1978). Technological Devices in Education. In: D. Unwin, R. Mc-Aleese (ed.): The Encyclopedia of Educational Media Communications and Technology. London: Macmillan.

- 
1. Peoples' Friendship University of Russia (RUDN University), 117198, Russia, Moscow, Miklukho-Maklaya st., 6. E-mail: [sergeeva198262@mail.ru](mailto:sergeeva198262@mail.ru)
  2. Moscow state pedagogical university, 119991, Russia, Moscow, M. Pirogovskaya Str., 1/1; E-mail: [elkom2006@yandex.ru](mailto:elkom2006@yandex.ru)
  3. Bauman Moscow State Technical University (national research university), 105005, Russian Federation, Moscow, 2nd Baumanskaya st., 7; E-mail: [bahtigulova@mgul.ac.ru](mailto:bahtigulova@mgul.ac.ru)
  4. Peoples' Friendship University of Russia (RUDN University), 117198, Russia, Moscow, Miklukho-Maklaya st., 6. E-mail: [evt09@mail.ru](mailto:evt09@mail.ru)
  5. Bauman Moscow State Technical University (national research university), 105005, Russian Federation, Moscow, 2nd Baumanskaya st., 7; E-mail: [bahtigulova@mgul.ac.ru](mailto:bahtigulova@mgul.ac.ru)
  6. Ural State University of Railway Transport, 620034, Russia, Ekaterinburg, Kolmogorov St., 66; E-mail: [alena\\_galyuk@mail.ru](mailto:alena_galyuk@mail.ru)

---

Revista ESPACIOS. ISSN 0798 1015  
Vol. 39 (Nº 02) Year 2018

[Índice]

[In case you find any errors on this site, please send e-mail to [webmaster](mailto:webmaster)]