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Quality criteria of specialists training within the context of competency-development approach

Criterios de calidad de la formación de especialistas en el contexto del enfoque de desarrollo de competencias

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ABSTRACT:

Introduction. The on-going changes in the Russian Federation have revealed a severe lack of specialists who have expertise and experience in taking decisions under the conditions of market economy, which causes an increased need in such specialists. The solution is possible if there is continuous economic education within the system of professional education. Research Methodology. In the course of the research, a competence-development teaching package has been worked out as a methodological support of continuous economic education, which is now being practically used. The package takes into account the educational level and the educational program specialization, which facilitates an individual's participation in the real economic activity. Research results.In specialists' economic skills development, it is prudent to use both traditional and innovative educational methods and technologies, which will enable to integrate pedagogical science and practice of continuous economic education and consider the succession of professional education levels and sublevels. The diversity of educational techniques will allow a teacher to realize educational goals and objectives. Discussion. The level of students'

RESUMEN:

Introducción. Los cambios en curso en la Federación de Rusia han revelado una grave falta de especialistas con experiencia y experiencia en la toma de decisiones en las condiciones de la economía de mercado, lo que provoca una mayor necesidad en dichos especialistas. La solución es posible si hay educación económica continua dentro del sistema de educación profesional. Metodología de investigación. En el curso de la investigación, se ha elaborado un paquete de enseñanza de desarrollo de competencias como apoyo metodológico de la educación económica continua, que ahora se está utilizando prácticamente. El paquete toma en cuenta el nivel educativo y la especialización del programa educativo, lo que facilita la participación de un individuo en la actividad económica real. Resultados de investigación. En el desarrollo de habilidades económicas de especialistas, es prudente utilizar métodos y tecnologías educativas tradicionales e innovadoras, lo que permitirá integrar la ciencia pedagógica y la práctica de educación económica continua y considerar la sucesión de niveles y subniveles de educación profesional. La diversidad de las técnicas educativas permitirá a un docente alcanzar las metas y objetivos educativos.

economic competences development was measured in accordance with three criteria: the cognitive criterion, personal motivational criterion and creative activity criterion. Each of the criteria reveals through a system of empirical indexes which reflect the degree to which a particular component is developed. Conclusion. Continuous economic education is an obligatory part of continuous professional education, which is focused on developing a competitive, economically competent specialist, who is in demand in the labor market.

Keywords: Experiment program, criteria and indexes of economic competences, level of economic competences development.

Discusión. El nivel de desarrollo de las competencias económicas de los estudiantes se midió de acuerdo con tres criterios: el criterio cognitivo, el criterio de motivación personal y el criterio de actividad creativa. Cada uno de los criterios se revela a través de un sistema de índices empíricos que reflejan el grado en que se desarrolla un componente particular. Conclusión. La educación económica continua es una parte obligatoria de la educación profesional continua, que se centra en el desarrollo de un especialista competitivo, económicamente competente, que tiene demanda en el mercado laboral.

Palabras clave: programa de experimentos, criterios e índices de competencias económicas, nivel de desarrollo de competencias económicas.

1. Introduction

A post-industrial society represents the initial step to a new type of civilized development, which is connected not only with the technological revolution, but with modernization and reinventing of the professional education system as well. Such factors as globalization of education, the shift to the innovative system of specialists training, reconstruction of the system of professional education, the introduction of the continuous education system allow considering economic education as a component of comprehensive personal education in the system of professional education. The social and economic situation in the Russian society has revealed the processes that prove that the dynamics of economic changes exceeds the dynamics of an individual's capability to adapt to them. The knowledge and economic skills that are gained in the educational process prove to be narrow whereas the learned standards and values do not serve as guidelines in the changing world and are subject to reevaluation themselves. Current changes in the Russian Federation have revealed a severe lack of specialists who have knowledge and experience in taking decisions under the conditions of market economy, which causes an increased need in such specialists. A large number of economic pitfalls in Russia are due to the society's unpreparedness for the market conditions, with the majority of the population being unaware of elementary economic terms and the laws of social life (Bedenko & Sergeeva 2012).

A developing society needs fully educated, entrepreneurial people, who can take independent decisions in the situation of choice, who are able to collaborate, who are flexible, dynamic, constructive, responsible for the country's prospects and its future thriving (Korzhuev 2009).

An integral part of modern education is its economic component, which includes economic knowledge and skills of economic thinking. Both are formed in the course of a whole life and enable an individual to react to the surrounding world adequately, facilitate their active social position and help form a proper assessment of economic circumstances and find their own place in them (Lomakina & Sergeeva 2015).

The effectiveness of economic competences on different educational levels is determined by a range of factors, which were taken into account in creating the model of economic competences development on different educational levels as well as the concept of continuous economic education, both serving as a normative and organizational concept for the experimental work (Tsibizova 2012):

- for students of higher professional education at the Tver branch of St. Petersburg State Engineering-Economic University;
- for students of secondary professional education at Tver chemical-engineering college;
- for students of primary professional education at a vocational school.

The choice of the above-mentioned educational establishments of higher, secondary and primary professional education was mainly determined by the fact that they are the places of a researcher could combine his/her practical professional activity and teaching. In the places, experimental sites were arranged, under the supervision of Grand PhD in Pedagogy, Professor of the Institute of Theory and History of Pedagogy at the Russian Academy of Education T.Y. Lomakina and with participation of the article's author M.G. Sergeeva

(Bedenko, & Sergeeva, 2014).

2. Research methodology

The **independent variables** of the experiment were the concept, forms, methods and technologies of professional education and their scientific, methodological and pedagogical support (Nikitina & Novikov 2016).

The **dependent variables** of the experiment were the parameters and indexes of the students' economic competences.

The following were admitted as the **additionalvariables:** the students' psychological and pedagogical specifics, theoretical scientific, methodological and practical readiness of supervisors and teachers for the educational activity aimed at developing students' economic competences.

The experiment in each educational establishment was carried out in three stages (Sergeeva 2015).

The first stage was *motivational and value-based*. Its content included: to elaborate the content of experimental work in students' economic competences development by means of the scientific methodological and pedagogical support; to determine factors and conditions influencing the effectiveness of this process; to describe the criteria and indexes of students' economic competences; to test the diagnostic materials (questionnaires, tests, diagrams, scales of assessment and self-assessment, etc.); to work out a purpose-built comprehensive program of scientific methodological and pedagogical support in economic competences development in the process of professional education; to arrange theoretical and practical instructive methodological seminars for supervisors and teachers. This stage mostly focused on developing students' *key economic competences* (Bakhtigulova, and Kalashnikov 2017).

The second stage was *cognitive-pragmatic*. This stage suggested the following work: the purpose-built comprehensive program of forming economic competences was implemented; its scientific methodological and pedagogical support was realized; students' economic skills development was monitored; the research methods were tweaked; the intermediary results were summarized at teachers councils and scientific methodological sessions; the reasons which caused deviations from the prospected results were studied, and necessary action was taken to adjust the system of educational activities in accordance with the experimental model. This stage placed the focus on accomplishing students' *key economic competences* and developing *professional economic competences* (Kyvyrialg 1980).

The third stage was *reflective-modifying*. The work content at this stage included: the efficiency appraisal of the realized theoretical model, concept and purpose-built comprehensive program; the study and effectiveness analysis of economic competences in the focus and experimental groups; correcting the content, forms, methods and means of the scientific methodological and pedagogical support in forming economic competences; implementation of some elements of the tested model and concept in the educational process of other educational institutions; forecasting the possibility of transmitting the research results to other educational establishments; giving speeches at scientific conferences; holding workshop sessions for the teaching staff of universities, institutes, colleges and vocational schools; receiving experts evaluation of the scientific and methodological value of the experiment results; preparation of scientific publications and monographs describing the results of the experimental work. This stage completed the formation of *key and professional economic competences* and gave rise to the development of *additional economic competences* (Sukhodimtseva 2015).

The process of economic competences development represents a shift from a lower to a higherlevel. It is rather long (as students cannot master the whole range of economic competences immediately) and divided into stages and levels. The stages reflect the processual feature of economic competence development whereas the levels reveal its hierarchical structure.

Summing the intermediary results of all the stages, we came to the conclusion that the economic competences as the result and criterion of professionally-oriented educational

activity can be strengthened in a certain organizational structure that is represented as levels of economic competences and is characterized by a level structure (Tsibizova 2012).

We established three levels in the process of economic competences development: low, average and high. Each level corresponds to the degree of economic competence development, which is a part of students' personal development.

The **level of students' economic competencesdevelopment** was measured in accordance with **three criteria**: cognitive criterion, personal motivational criterion and creative activity criterion. Following A.K Markova and V.P. Sergeeva, we define a system of criteria as an ideal model to which a real phenomenon is compared, and the level of their similarity is ascertained. The criteria under consideration can be considered as objective ones, since with their help, it is possible to estimate the level of correspondence of a professional institution's graduate to the real economic requirements (Bakhtigulova 2014a).

Each of the criteria is revealed through a system of empirical indexes that demonstrate the development level of each particular component. The analysis of scientific literature and results of pedagogical activity aimed at forming economic competences in professional education establishments showed that these indexes must satisfy the requirements ofconcreteness, diagnosticity, simplicity in fixation, availability for understanding and usage.

The scientific pedagogical works that we used for our research as well as the data gained at the theoretical stage of the research enabled us to single out seven parameters necessary and efficient for each criteria. Choosing the parameters, we proceeded from the needto consider at least two important factors: the informative value of the parameter and the possibility of its quantitative and qualitative interpretation.

Thus, the above-mentioned criteria can be characterized by the following **parameters** (Pastuhova 2010):

Cognitive criterion:

- knowledge of economic terms and notions and acompetence to explain their meaning;
- showing interest in modern economic issues;
- the expenses planningskill;
- applying the knowledge to characterizing economic issues;
- the competence to analyze properly and to infer cause-and-effect relationships between economic issues;
- the ability to see the laws of market mechanisms functioning;
- the usage of economic knowledge for handling routine and non-routine tasks.

Personal motivational criterion:

- following the economy regime in the educational institution and at home (frugality);
- planning and regulating one's own behavior in economic circumstances (self-sustainability);
- the estimate of work load and expenses on its fulfilment (efficiency);
- the quality of the work done (industry);
- the efficiency of the fulfilled work and of solutions to problematic economic situations (entrepreneurship);
- the need in economic activity as a condition of sustainable society and industry development;
- understanding the necessity of economic competency.

Creative activity criterion:

- the competence to analyze economic situations and find ways to increase their efficiency;
- the skill to transfer knowledge to the practical activity;
- the need in external supervision in economic activity;
- the sense of priorities for achieving the results in economic activity;
- showing independence in setting goals and choosing ways of achieving them;
- the skill to model economic activity;
- preferring innovative and/or short-term projects.

So, three criteria were assigned in order to assess the experiment results, each supplied with a characteristic of parameters for each criterion and level as well as taking into account key, professional and additional economic competences at different stages, which allowed for a comparing analysis of students' economic competences in experiment and focus groups

(Bakhtigulova 2014b).

3. Research results

The total value of the economic competences development level was calculated with the help of our own methodic and rated from 0 to 10.

In order to conduct a diagnostic survey among students in experimental and focus groups, a questionnaire was made, which consisted of 100 content open-ended, closed-ended and semi-open questions (see table 1).

Table 1The diagnostic survey respondents
(the beginning of the motivational and value-based experiment stage)

Respondents	Total	Male	Female	
Number	565	206	359	
Percentage	100	36,5	63,5	

The questionnaire processing procedure consisted in a formalized (number and percentage) calculation of the number of answers to the questions and of the number of variants chosen in each group (depending on the education specialization and gender-age characteristics). The results processing went for each educational institution as a whole and separately for each group within a particular educational institution.

The generalized survey results showed that the level of economic competences development (within the motivational and value-based criterion) slightly varies in the focus groups. Girls showed higher figures than boys, with 6.8 points in female groups and 6.7 points in male groups. The common level of all the respondents (565 people) made up 6.75 points, which is average.

The experiment suggested the following conclusions:

- an important part of economic competences is future specialists' economic knowledge and economic values;
- students are not concernedabout global economic issues only, but about their personal interaction with the society and market. Still, the students' economic consciousness can be defined as household;
- the level of students' economic knowledge and economic values development is not high. It can be explained by the fact of irregularity of economic competences development work in professional education establishments, with lack of professionally oriented practical activity;
- the differences in the level of economic competences development in gender-differentiated groups are less significant than in specialty-differentiated groups. The girls demonstrated a more emotional approach to economic issues and a more optimistic and responsible attitude to the society in comparison with a more realistic one of the boys. The undergraduate groups show a more mature and realistic view on the economic situation in the region and more confidence in the self-esteem of their activity. It can be explained by the students' increased professional and personal confidence during the period of internship;
- the research found students' low activity level in questions demanding independent cause analysis, examples and suggestions. It may testify lack of an active economic position and underdevelopment of reflective, forecasting and analytical skills;
- the initial level of the participants' economic competences (regardless of their gender and professional specialization) appeared to be almost the same, with average and low levels predominantly.

Oral and written students' answers, watching the educational process, talks to students and teachers led to the conclusion about the insufficient level of graduates' economic competences development. The main obstacles preventing the effective specialists' economic development were also established, among which are diagnostic, scientific methodological, cognitive, psychological, axiological and cultural ones, as well as insufficient preparation of

the officials and teachers to the management of the economic competences development process. The results received in the course of the motivational and value-based experiment stage laid a basis of the cognitive-pragmatic stage.

At the *initial* (*preparatory*) phase of the cognitive-pragmatic stage, the activity of temporary creative groups was organized as well as of scientific theoretical and practical seminars, scientific methodological councils, teaching staff meetings in order to create a positive attitude of the teaching staff and social partners to the experiment, to increase the economic and scientific methodological competence of heads of departments and teachers in the educational institutions. The most important part of the experiment at this stage was arranging scientific methodological work of subject commissions on economization of educational activity. Economization is seen as value-oriented influence of economics as a complex, integrated science on the educational process components (goals, content, teaching methods, organization and management of teaching), which are regulated by governmental professional education programs and requirements of the Federal State Education Standard in the Higher/Secondary/Primary Professional Education for each specialization. In general we did:

- Conducted the content analysis of teaching plans, established the priorities in developing economic competences (knowledge and skills), found out ways to optimize interaction between subject commissions, supervisors and self-government bodies.
- Determined levels, methods and necessary pedagogical means of economization and professionalization of the education work content.
- Worked out a methodic to determine the real level of economic knowledge and skills in the course of education process. Strategic invariant goals were also assigned for each stage of students' economic competencesdevelopment (see table 2).

Table 2Strategic goals of professional education content economization in colleges and higher educational institutions

Stages of students' economic competences development	Strategic goal
Motivational and value-based (1st-2nd years)	Digesting basic theoretical knowledge and skills, which constitute to cognitive ground of students' economic competences
Cognitive-pragmatic (2nd-3d years)	Acquiring general methods of economic activity as an instrumental basis of students' economic competences
Reflective-modifying (3d-4th years)	Supervised self-education on the basis of the acquired basic knowledge and skills
Evaluative (4th year, immediatelybefore graduation)	Diagnostics and evaluation of the real level of economic knowledge and skills

The main phase of the cognitive-pragmatic and reflective-modifying stages of the experiment appeared to be the most difficult step of our work as it was necessary to bring together all the elements of the theoretical and diagnostic analyses so that they formed an integrated and consistent system and to implement the theoretical model of graduates' economic competences development.

In the course of the stages four work **directions** were stipulated:

- Scientific methodological support. This direction content includes diagnostic work, analysis,
 generalization of empiric information about the process of students' economic competences
 development in the course of educational process in professional education institutions and about
 the dynamics of the on-going changes; detection of the obstacles preventing the efficiency of
 students' economic development; preparing heads of departments, teachers and social partners
 for the management of the economic competences development process; elaborating the
 teaching package.
- Theoretical economic preparation. Within the framework of this direction, economization of the professional education content was carried out. The education material was consequently delivered for further development of key, professional and additional economic competences in accordance with the experiment stages.
- Practical economic preparation. This direction suggested creating practical economic tasks considering professional specialization as well as a more active usage of simulative teaching methods, including the tutorial "Simulated Company". This very direction became the most significant in the process of key and professional economic competences development.
- Research work, including students' learning and scientific research work, which we consider the most effective in developing the cognitive constituent of graduates' economic competences, in which students acquire the experience of creative solving of economic issues, society issues and market issues. This type of activity had the most influence on developing additional economic competences.

Having studied works by I.D. Zverev (Tsibizova and Neusypin, 2012), we found out that economization of the teaching work content within teaching disciplines can be multi-subject, single-subject and mixed.

The mixed model appeared to be the most appropriate for the purpose of our research. It allowed determining subject integration lines for different specializations, thus introducing strategic economic goals in the content of profession-oriented education work. In the course of the cognitive-pragmatic stage, a new simulative teaching method was introduced in the form of the tutorial "Simulative Company". This stage was characterized by choosing simulative teaching methods and pedagogical conditions appropriate for their usage in the education process on each education level, as well as by determining the content and technologies of the method "Simulative Company". At the same time, we also used a single-subject model, when we introduced economic groups and unions in the work plan. In focus groups, in the course of the cognitive-pragmatic stage, lessons went in accordance with the regular calendar-thematic plans.

The diagnostics of the students' economic competences in the education process of professional education institutionswas conducted in different stages: prevenient stage (initial diagnostics), initial stage (current pedagogical control), principal stage (mid-term pedagogical control), final stage (final control).

- Initial diagnostics. This stage suggested detecting the level of students' economic knowledge. The survey was conducted with the help of questionnaires and psychological tests among first-year students. The survey was aimed at finding out: the degree of understanding economic categories; the attitude to regional and global economic issues; the degree and motivation for economic activity; having economic values and interests; social and psychological personal features.
- Current pedagogical control. At each stage the commission conducted control of the economic knowledge and skills quality in accordance with education programs. The gathered data gave ground to planning further work in the groups and individually, which provided efficiency in developing economic competences. A great deal of attention was paid to working out tasks for students' individual learning and scientific research work.
- Mid-term control. The diagnostics of the level of students' economic competences development (low, average, high) was conducted in accordance with the education stages in the educational institution. A more detailed study of students' economic priorities and their attitude to economic activity was conducted as well as of difficulties in the process of preparing economic specialists. The optimization of the created conditions for developing economic competences was also given attention to.
- Final control. A diagnostic survey was conducted among undergraduate students, internship supervisors, representatives of basic enterprises and teachers. At this stage, undergraduates

digest core professional and economic positions and goals. They solve not only learning tasks, but also purely professional ones in the course of practical training. We tried to find out the changes in the sphere of students' economic and professional values, interests, needs and how the students and independent experts evaluate the level of the students' preparedness for independent professional and economic activity. Comparing the results of the initial and final stages we testified a dynamics of students' economic competences development during the whole educational process and decided what changes it was necessary to introduce in the economic education program. The received data allowed judging about the effectiveness and efficiency of the theoretical model and concept of scientific methodological and pedagogical support in specialists' economic competences development and the experiment as a whole. The results of the diagnostic research served a basis for making recommendations to enhance profession-oriented learning activity and students' economic development.

4. Discussion

The methodic of determining the real level of economic knowledge and skills included three steps: the first step determined economic knowledge, the second – economic lore, the third step – economic skills. Each step united tasks of the growing difficulty on basic themes, aspects and economic problems. Each task was estimated separately, then all the results were summed and we received results for each step. The results for each step were also summed and we received a generalized score for fulfilling all the tasks.

For each stage and level of the educational institution and, at some stages, for each group of exercises, specific evaluative criteria were used depending on the subject specifics, professional specialization and the academic course.

The first group of exercises comprised tests which helped to evaluate the level of students' theoretical economic knowledge. As the main tool of economic competences diagnostics was case-measures. Working on them, we relied on I.P Pastuhova's methodic (Pastuhova 2010). Case-measures are a unity of case models comprising problematic tasks and offering a student to think over a real economic situation whose description does not only reflect a life, manufacturing or social problem, but also actualizes a certain complex of economic and professional knowledge, necessary for solving this problem.

With the purpose to determine the level of students' economic competences, besides the estimate and analysis of the cognitive constituent (the level of knowledge and skills), there was an attempt to diagnose emotionally-valued economic relations (i.e. personal motivational constituent) and students' economic behavior and actions in different economic situations (creative activity constituent). All these constituents reflect correspondingly cognitive, affective and active personality spheres. Each of the criteria was measured in quantitative indexes on the 10-score scale. The criteria under the measurement took into consideration the results of students' academic performance (the quality of knowledge) in learning modules (the first module comprised general human and social economic disciplines; the second module included general professional disciplines; the third module consisted of special professional disciplines, students' participation in research work, etc. The estimate was conducted by leading teachers, internship supervisors and by students themselves. Each criterion received a separate estimate (see tables 3-5).

In order to bring each student's score together we used apivot table of estimating the parameters development for each criterion: cognitive, personal motivational and creative activity criteria (see table 6).

Table 3Cognitive criterion of students' economic competences (C)

No.	Parameter	Diagnostic and estimation methods	
C1	knowing economic terms and notions, a competence to explain their meaning	Testing	
C2	showing interest in modern economic issues	Testing	

C3	the expenses planning skill	Testing Case-measures
C4	applying the knowledge to characterizing economic issues	Testing Case-measures
C5	the competency to analyze properly and to infer cause-and-effect relationships between economic issues;	Testing Case-measures
C6	the ability to see the laws of market mechanisms functioning	Testing Case-measures Questionnaires
C7	the usage of economic knowledge for handling routine and non-routine tasks	Testing Case-measures Questionnaires Expert estimate

Table 4Personal motivational criterion of students' economic competences (M)

No.	Parameter	Diagnostic and estimation methods
M1	following the economy regime in the educational institution and at home (frugality)	Testing Questionnaires Watching
M2	planning and regulating one's own behavior in economic circumstances (self-sustainability)	Testing Questionnaires Case-measures
М3	the estimate of work load and expenses on its fulfillment (efficiency)	Testing Questionnaires Case-measures
M4	the quality of the work done (industry)	Testing Watching
M5	the efficiency of the fulfilled work and of solutions to problematic economic situations (entrepreneurship)	Testing Questionnaires Case-measures
M6	the need in economic activity as a condition of sustainable society and industry development)	Testing Questionnaires

M7 understanding the necessity of economic competence Testing

Questionnaires

Table 5Creative activity criterion of students' economic competences (A)

No.	Parameter	Diagnostic and estimation method
A1	the competence to analyze economic situations and find ways to increase their efficiency	Testing Questionnaires Case-measures Expert estimate
A2	the skill to transfer knowledge to the practical activity	Testing Case-measures
А3	the need in external supervision in economic activity	Testing Questionnaires Watching
Α4	the sense of priorities for achieving the results in economic activity	Testing Case-measures Expert estimate
A5	showing independence in setting goals and choosing ways of achieving them	Testing Case-measures Expert estimate Results of learning and research activity
A6	the skill to model the economic activity	Case-measures Expert estimate Results of learning and research activity
A7	preferring innovative and/or short-term projects	Case-measures Expert estimate Results of learning and research activity

 Table 6

 Pivot table of estimating the economic competences indexes development

№ No.	Student's surnameand	Score	The level of development
	name		

	1	2	3	4	5	6	7	
1								

Each parameter required calculating the generalized index:

$$C = C1 + C2 + ... C7$$
; $M = M1 + M2 + ... M7$; $A = A1 + A2 + ... A7$.

We did not intend to fix changes in each of the parameters. We were interested in the general result of the students' economic competences development. The integrated index (II) was calculated by the formula:

$$II = \frac{C + M + A}{3}$$

The composite score of the general result varied from 0 to 10.

Taking into consideration the fact that the level of economic competences in most case appears to be average and less frequently high, we diagnosed irregular intervals in grouping the indexes within economic competences, following A.A Kyverialga's method (Kyvyrialg 1980). In accordance with this method, a low level is characterized by 25 per cent estimate deviation from the average score. In this case, the score from the interval rated R(min) to 0,25 R(max) allows recording a low level of students' economic competences level. The score higher than 75 per cent of all possible testifies a high level of the estimate. Following this method, the levels of economic competences were determined by the following intervals (see table 7). The level of students' economic competences was established by comparing their composite score (table 7) with the scale.

This diagnostic method was used at each experiment stage in order to determine the level of students' professional development.

Table 7Level intervals of students' economic competences

No.	Intervals of the integrated score	Level of economic competence
1	10 - 8	High
2	7 – 4	Average
3	3 – 0	Low

The scores allowed determining the efficiency factor of the students' economic competences development in the educational process. This factor was calculated by the formula:

Having adapted V.P. Bespalko's method (Bakhtigulova 2014a), we determined the efficiency degree of students'economic competences development in the educational process as follows (see table 8):

Efficiencyfactor (EF)	Efficiency degree of students' economic competences development
0,8 ≤ C ≤ 1,0	High
0,6 ≤ C< 0,8	Average
less than 0,6	Low

Thus, in order to receive necessary empirical data, we used a system of common methods aimed at qualitative analysis of oral and written answers, tests, talks, watching, experts estimate, case-measures, statistic methods of results processing, particularly calculating the percentage and average figures.

5. Conclusion

A result of the shift to the market, Russia has faced an urgent need in economically literate specialists, successfully performing in the new social and economic circumstances. The recipe to this problem is in continuous economic education in the system of professional education.

Continuous economic education is a compulsory part of continuous professional education. Under the market economy conditions, it is focused on developing a competitive, economically competent specialist, whose economic competences are developed in the course of economic education and who is in demand in the labor market.

The purpose of the experiment which was implemented in educational institutions of higher, secondary and primary professional education was to gain stable positive dynamics of economic competences development among students who learn under the existing economic, regulatory, scientific, technical and manufacturing requirements within the purpose-oriented program, which has been built on the model of economic competences development and the concept of continuous economic development. In order to bring this to life, special criteria and parameters of students' economic competences development were created; different diagnostic methods were adapted and implemented to determine the students' economic competences development on different educational levels; in focus groups, the initial level of graduates' economic competences development was established; a purpose-built complex program was created in accordance with the theoretical model and concept, as a basis for scientific methodological and pedagogical support in developing students' economic competences; in the course of the program implementation students from experiment groups demonstrated higher level of economic competences development than students from focus groups.

The elaborated level (low, average, high) criteria and indexes of students' economic competences development allowed setting up the correspondence of a professional institution graduate to the modern economic requirements.

The perspectives of further research are connected with viewing this problem in terms of adaptation and socialization of graduates in the quickly changing social and economic conditions.

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