

# Development of students' general competence when studying at economic universities in the North-East of Russia

## Desarrollo de la competencia general de estudiantes de economía en universidades del noreste de Rusia

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#### ABSTRACT:

The article considers the development of general competence of economics students in the context of digital economy and the increasingly aggravated economic crisis in Russia and the world. The article claims that top priorities in training economics students in Russian universities should include information technologies used for solving various research and administrative tasks, various methods and software for processing business information, and the ability to use IT services.

**Keywords:** technological competence development, regional economy, information technology, digital economy, economic education

#### RESUMEN:

El artículo considera el desarrollo de la competencia general de los estudiantes de economía en el contexto de la economía digital y la crisis económica cada vez más agravada en Rusia y el mundo. El artículo afirma que las principales prioridades en la formación de estudiantes de economía en las universidades rusas deberían incluir tecnologías de información utilizadas para resolver diversas tareas administrativas y de investigación, diversos métodos y software para procesar información comercial y la capacidad de utilizar servicios de TI.

**Palabras clave:** desarrollo de competencias tecnológicas, economía regional, tecnología de la información, economía digital, educación económica

## 1. Introduction

Development of students' general competence, which includes key competencies, is one of the topical issues of economic education. European vocational education considers four

models of competences (MC1 – MC4, models of competence). Each of these four competence models (MC1 – MC4) results in different approaches to planning, organizing and delivering higher vocational education, and in particular, in terms of evaluating and recognizing student's achievements and assessing the possibilities of their employment [Khutorskoy, 2012; Council of Europe].

A significant contribution to the development of views on the competitive strategy was made by G. Hamel, Professor of Strategic and International Management, London School of Business, and C. K. Prahalad, Professor of Business Administration, Corporate Strategy and International Business at the University of Michigan Business School. Their book "Competing for the Future" was published in 1994 in which the authors claim that instead of considering a company as a set of enterprises, executives should begin to perceive it as a combination of key, or core competencies, i.e. skills and technologies that pursue consumers' benefit.

According to G. Hamel and C.K. Prahalad [1994], the company's potential is determined by its superiority not in modern, but in future markets and is called intellectual leadership. Such markets, as the researchers say, have not yet been formed, but one should now be ready to represent and be striving to create them.

In the Russian Federation, the concept of "general competence" is defined in the Federal State Educational Standards of General Education which were approved in 2010.

Recommendations of the European Parliament and the Council of Europe of December 18, 2006, "On Key Competences of Lifelong Learning for Citizens in a Knowledge-Based Society" name eight key economic competencies: the essence, structure and place in the system of economic education; digital competence, ability to learn; social and civic competences; sense of initiative and entrepreneurship; cultural awareness.

In this set of core competencies, we would like to focus on basic competencies in science and technology that, in our opinion, are required when developing general competence.

T.S. Teryukova believes that they can be considered regarding their possible "economic content" and include features that ensure a basic level of economic and financial literacy.

Strategic issues of social and economic development of regions necessitate efficient training of economics specialists. For a region, overcoming a crisis of any kind is directly linked to the level of information activity of economics teachers.

The study aims to explore the general competence of students in the context of economic education through the implementation of the program of digital economy in the region.

To achieve this goal, the following tasks are set: to consider approaches to the development of general competence of students and to test experimentally the effectiveness of the application of information technologies in economic education. The research aims to determine the development of students' general competence in the context of digital economy in three universities of Yakutia – the Financial and Economic Institute of M.K. Ammosov North-Eastern Federal University (NEFU), Yakut State Agricultural Academy (YSAA) and a branch of the Moscow Financial and Law Institute. The leading methods applied to investigate the research problem are a pedagogical experiment which included a survey and a method of statistical processing of the research findings. The article discusses a pedagogical issue that is extremely relevant for the economy of the region: development of general economic competence of economics students, achieved primarily through improving skills of using modern IT technologies that facilitate collection, processing and storing of data required for the organization, management and control of economic activity. The authors prove that it is possible to use information and communication technology for organizing and conducting research on the social and economic development of the economy of the region. The results obtained by using computer software for data analysis confirm the growing awareness economics students have regarding the importance of research activities. The authors describe the potential of using modern IT technologies for economic education and analyze diagnostic tools that can be used to determine the level of general competence of economics students at the NEFU. The materials of the article can be used by experts and teachers in the field of economic education.

## 2. Literature review

At present moment, higher education is offering more opportunities related to modern educational technologies. R. Schulz, G. M. Isabwe, and F.Reichert [2014] consider the needs of managers in the regional economy, especially their motivation to develop general competence in the field of economic education. This paper, exploring the needs of prospective economic managers, is devoted to the initial and current motivation, as well as behavior and attitude to the introduction of digital economy in the professional activities of economics students. The study focuses on the development of general competence in teaching students the module developing their personal and information needs within subjects "ICT in Economics", "Entrepreneurship Basics in the Republic of Sakha (Yakutia)", "Foreign Language for Professional Needs".

Any modern corporation that operates in high-tech markets needs tools and mechanisms adapted to the current development rates, which include the methodology for the development of "core competencies", creation of support centers for "inorganic competences" (whose purpose is creating new "key competencies") and practical mechanisms of "open innovations" as tools that ensure faster acquisition and development of new competencies through close interaction with the market and getting feedback from it. However, such successful interaction is not always possible [Torres, 2010]. For instance, during the international project "Identification and Selection of Key Competencies" conducted by the Organization for Economic Cooperation and Development and the National Institutes of Educational Statistics of Switzerland and the United States, the parties failed to develop an accurate definition of key competencies. Similarly, the symposium of the Council of Europe "Key Competencies for Europe" could come up with only a provisional list of key competences [Khutorskoy, 2012; Council of Europe].

At the same time, there has been no sufficient research on the essence and specifics of e-learning in economics education in the national and regional educational system of the Republic of Sakha (Yakutia).

We believe that to understand various aspects related to the introduction of corporate e-learning in Russian universities it is necessary to solve the following problems: to identify the specifics of corporate e-learning, to determine the essence of information dependence during the implementation of the master program "Corporate e-Learning" on the basis of the online interaction of Russian universities [Barakhsanova, Savvinov, Prokopyev, Vlasova, Gosudarev, 2016].

N.G. Chiryaeva and V.V. Semenova in their article "University rating as a tool stimulating competition" note that intensifying international economic cooperation increases the significance of foreign languages, and one's ability to use them for communication becomes a prerequisite for conducting successful business. This opinion is shared by M. F. Guskova, P. F. Sterlikov, and F. F. Sterlikov [2007]. To communicate in a foreign language, one should know vocabulary and functional grammar, as well as be aware of the main types of verbal interaction and the styles of various types of documents, reports, scientific articles, etc. This competence implies the ability to conduct business meetings, negotiations, successful dialogue and to end conversations [Kurikova, Nadezhkina, 2013].

In line with the policy of digital economy implemented by the Government of the Russian Federation and the works of E.A. Barakhsanova, V.A. Varlamov, M.S. Prokopiev, we believe it is viable to consider general competence in the implementation of e-learning at the NEFU which is done by applying information technologies in economic education.

T. Gounko, S. Panina, and S. Zalutskay, in their article published in a UK journal explore the characteristics of competency-based approach when developing syllabus for foreign languages; their position determined our decision to include two subjects in the master program of future education managers: "Academic Course of Foreign Language" and "Business Foreign Language" that became part of the module "Foreign Language for Professional Needs". The key concepts of the approach they propose are self-education and self-management, as well as emphasis on teaching students the methods of finding

necessary information on their own and being able to interpret it in a specific foreign language context.

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### 3. Materials and methods

This study was conducted in the Economic Institute of M.K. Ammosov North-Eastern Federal University, Yakutsk universities in the Republic of Sakha (Yakutia) which train specialists in the field of regional economy. Conducting the research, we used the following range of methods: theoretical methods (comparative analysis of scientific publications), praxiometric methods (analysis of educational standards and educational programs), and empirical methods (observation of the learning process).

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### 4. Results and discussion

In order to determine students' knowledge of the activities performed by a specialist working in the field of regional economy, as well as the level of their professional, personal and general competences, we surveyed 360 full-time students of the Financial and Economic Institute of the NEFU, the Yakut State Agricultural Academy (YSAA) and a branch of the Moscow Financial and Law Institute.

The results of the survey show that 52% of the first and second year students have no work experience, which means that they have almost no idea about the specifics of future professional activities. In addition to that, 14% of students had up to one year of work experience, while the smallest percentage of the respondents had experience varying from one to five years – 15%, from five to ten years - 10%, or 10 years and more – over 2% of students (Table 1).

Table 1

<b>Work experience</b>	<b>Percentage (%)</b>
none	52
under 1 year	14
from 1 to 5 years	18
from 5 to 10 years	10
10 years and more	2

The questionnaire included questions assessing students' competencies according to their importance for a modern manager's effective work in the field of regional economy. Besides, students answered questions about the strengths and weaknesses of graduates – managers and economists and proposed ways of improving their professional competencies.

For instance, assessing managerial competencies, 87% of students noted that the crucial ones are the ability to plan and organize their work, as well as decision-making skills; 53% of students believe that leadership skills are necessary for effective work of a manager; 18% of students named delegation skills as compulsory. In our opinion, this is due to the current lack of management practices in which one can exercise their delegation skills and be able to apply their own leadership potential.

When assessing communicative competencies, students named persuasion skills (87% of respondents), the ability to establish contact (74% of respondents), flexibility (71%), and only 51% of students mentioned the ability to work in a team and listening skills as competencies necessary for successful managerial work in economics. We believe that this is due to the lack of work experience and insufficient level of communication skills. When assessing personal competencies, students named responsibility (93%), motivation to self-

development (68%), stress resistance (52%) as highly demanded competencies of economic managers, while only 35% of students considered creativity as a compulsory managerial competence. The ability to apply knowledge in practice was mentioned as the only compulsory special managerial competence (59%). Other competencies were assessed as optional. Perhaps this is due to the lack of knowledge of the specific place of future work and the lack of practical experience.

Describing their strengths, the students mentioned communication skills, high professional motivation and ability to plan and monitor their work. Among their weak sides, the students pointed out the lack of practical work experience and inability to apply theory into practice.

Talking about ways of increasing professional competencies and changing the learning process, the students noted the need to increase internship duration, to organize internships with further employment, to increase number of practical classes and, at the same time, to reduce the number of lectures, to have practical training aimed at the development of specific competencies. Other proposals included organization of meetings with administration representatives of relevant ministries for sharing experience.

Proceeding from the idea that educating a specialist in the regional economy management is a complex process that should be based on various points of view, we have developed an educational module for the following subjects: "Entrepreneurship Basics in the Republic of Sakha (Yakutia)", "Foreign Language for Professional Needs", "ICT in Economy".

The content and objectives of studying these subjects enable to create a modular integrated course, the purpose of which is the development of general competence through studying special economic disciplines.

The choice of the proposed subjects complies with employer's requirements, which was reflected in the specifics of students' work in regional economy.

From our point of view, this manifests itself in the ability to design an informational educational environment which assures high quality of the learning process; studying the state and potential of the managed system and its macro- and micro-environment by using a set of methods for strategic and operational analysis; research, organization and evaluation of management outcomes using management technologies that are consistent with the general and specific patterns of the managed system development; using the available opportunities of the managed system and designing ways to develop it and increase the efficiency of management.

It is important for a future economics specialist to develop personal and professional qualities that promote team building skills, communicative and leadership qualities which imply one's ability to establish business contacts, to develop a good rapport with people, be open to dialogue, and discussions, be ready to reach compromise; ability to motivate employees to increase their professional potential; ability to establish efficient interaction between members of the team.

These are personal and professional qualities of a graduate that in the future will help them to develop conflict-free relationships with the staff, to strengthen bonds between the members of the team, on the whole, to manage the personnel effectively. To form these professional competencies in educational programs, individual educational routes are developed for students in the course of their internship.

This approach places the emphasis on self-education, self-organization, and self-management with a stimulating influence exerted on students for their self-development [Knyazeva, Kurdyumov, 2002].

Competency-based approach regarding the implementation of corporate e-learning, considered by EA. Barakhsanova and E.Z. Vlasova, implies the impact of joint action, cooperation, interaction of various educational institutions when developing evaluation tools and including them in interactive forms of education (trainings, business games, cases, discussions, etc.) [Barakhsanova, Vlasova, 2016].

For instance, in the NEFU and YSAA and a branch of the Moscow Financial and Law Institute in the course of training future economics managers master educational programs and

acquire the following competences: general cultural, general professional, professional, and special ones.

In this regard, interdisciplinary integration seems to be another relevant issue, being a tool for transformation of the educational programs content. American teacher R.V. Tyler sees the integration of subjects as a necessity of the "new generation" curriculum; B.S. Bloom considers interdisciplinary integration as an approach which enables a better understanding of the educational material related with the world around us. According to J. McDonald and S. Czerniak, modular interdisciplinary integration is understood as studying a general scientific and educational topic through various educational activities based on the knowledge from various subjects.

Interdisciplinary integration is carried out through cyclic, interdisciplinary links and represents a logically complete structure of multidisciplinary knowledge. Such integration not only complements the content of one subject with the knowledge from another, but unites them and provides not a narrow subject training, but active one which forms professionally important skills, abilities and personal qualities [Vishnyakova, 2007].

Integrated courses seem to be the most viable way of forming an integrative type of cognition within the existing subject centered educational system. Creating a module requires:

- coherence of the time when certain academic disciplines are studied, so that each of them is grounded on the conceptual basis of the previous one and facilitates successful acquisition of concepts on the interdisciplinary basis;
- continuity of concepts development, filling them with new content, and building new links;
- a unified interpretation of general scientific concepts;
- a unified approach to the organization of the learning process in all components of the module.

At present stage, interdisciplinary integration can not take place without ICT in education. One of its directions is the creation of interdisciplinary electronic educational and methodical kits consisting of: an educational program of the subject; methodical recommendations for practical and laboratory work; assignments for students' independent work; a set of evaluation tools; sample questions to prepare for an exam or a test; methodological instructions for working on the course project (if this is included in the curriculum); list of references and online resources; electronic lecture course; materials for further in-depth study of the subject; criteria for evaluating learning outcomes.

Thus, interdisciplinary integration is one of the most important directions for the development of general competence of students when studying at economic universities.

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## **5. Conclusion**

Development of general competence in the vocational training of economics specialists is viewed as a holistic educational system with the emphasis on student's personality, which in turn is also a complex self-organizing system.

It is necessary to point out that general competences which include several complex system components and constitute an integral system are developed during the implementation of the policy of digital economy in the educational process of a university.

Currently, a huge role in the training of a regional economy manager and the learning outcome are linked with the formation of general competence achieved by preparing a specialist with a wide range of professional qualities.

Some of these qualities are specific to the manager in the field of economy, while others are more general and are considered compulsory for graduates of any economic institution of higher education. When training specialists in the field of regional economy management, multivariance means creating opportunities for choice in the educational environment of the university and giving each student a chance to follow their individual route to success, encouraging the independence of choice and taking a responsible decision, and ensuring the development of an alternative and independent opinion. More specifically, this choice lies in

the ability to determine the development of general competence of a student in the learning process in the university, in accord with the factors of the socio-economic development of the region.

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