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Theoretical aspects of the competency approach in geography training

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Abstract: *At the end of the 20th and the beginning of the 21st century the implementation of the competency approach was popularized. The approach is associated with developing the qualities in the students that make them prepared for the constantly changing environment. The study present analyzes of the theoretical aspects of the competency approach and associated with it terms – "competence" and "competency".*

Keywords: *competency approach, competence, competency*

Introduction

The modern global world is characterized by dynamics and changes in various areas of human daily life. They inevitably affect the educational system. For this reason, modern education faces a number of challenges related to the implementation of particular types of competences by the students. For the accomplishment of the leading priorities of European Union education policies is applied the competency approach. The formation of specific competences is based on this approach. Competences and the competency approach are one of the most discussed aspects of the educational policies not only in Europe, but worldwide. The topicality of the issues they are examining is defined as an important guideline for realizing a motivated modern educational process for all participants in it. This is reflected in the national program for the development of the education in Bulgaria, which aims to form individuals with critical thinking, accurate self-assessment and adaptability to the changes in the environment, skills for analysis and application of the knowledge for personality development.

Materials and methods

The purpose of this study is to attempt to highlight the theoretical aspects of the competency approach in education with a view to its application in geography and economics education. In order to identify the trends with regards to the competency approach in geography and economics's education and

training, an analysis is performed of the relevant pedagogical, psychological and methodological literature as well as a comparative analysis.

Results and discussion

In order to clarify the theoretical assumptions related to the competency approach, an analysis of the basic concepts is needed.

Competency approach

The concept "competency approach" was originally developed in the psychological literature, where expresses the ability of individuals to cope with the expectations of the environment in which they exist and pursue their activity. In the context of the above, a competent person has at least 3 components that are limited to the suitable qualities, legal qualifications and the right to belong to a specific professional field [6].

There are different perspectives about the emergence of the competency approach. It is thought that the Competency-based education (CBE) is formed in the US in the 1970s for the needs of professional education [7]. One of the perspectives for its emergence is the need to resolve the discrepancy between the requirements of the society and the labor market and the preparation of graduating students [17].

Another thesis links it with the Bologna Process and the TUNING project. The main purpose of the Bologna Process and the TUNING project is to harmonize the educational structures of the participating countries [1, 9].

The Bologna Process is an initiative that emerged in the 1990s. The main idea of the initiative is the comparability of higher education policies in Europe. The Bologna process aims to create a pan-European higher education area. In order to ensure that all the goals of the Bologna Process are achieved, it is necessary to have:

- easily comparable educational levels in education;
- a unified system of study credits as a unit of student employment;
- and the mobility of students and teachers in the pan-European area.

Tuning Educational Structures in Europe is a university driven project which aims to offer higher education institutions and subject areas a concrete approach to implementing the Bologna Process. The Tuning approach, explained in more detail in the accompanying booklet, consists of a methodology to design, develop, implement and evaluate study programmes for each of the three Bologna cycles. It has been tested in several continents and found fruitful and can be considered valid worldwide. Furthermore, Tuning serves as a platform for developing reference points at subject area level. The reference points are expressed in terms of intended learning outcomes and competences. Learning outcomes are statements of what a learner is expected to know, understand and be able to demonstrate after completion of a learning experience. According to Tuning learning outcomes are expressed in terms of the level of competence to be obtained by the learner. To make levels of learning comparable the subject area groups/Thematic Networks have developed cycle (level) descriptors, which are also expressed in terms of competences. According to Tuning, the introduction of a three-cycle system has brought about a change from a staff centred approach to a student-oriented approach [26].

Tuning has identified approaches and best practices to form specific generic and subject specific competences. Finally, Tuning has drawn attention to the role of quality in the process of designing or re-designing, developing and implementing study programmes. It has developed an approach for quality enhancement, which involves all elements of the learning chain. It has also developed a number of tools and has identified examples of good practice, which can help institutions to boost the quality of their study programmes [26].

In the evolutionary development of the competency approach, four main stages can be distinguished:

- The first stage – from 1960 to 1970. During this stage competency approach is widely applicable mainly in the theory of language, language training and foreign language training.
- Second stage – from 1970 to 1990. During this stage the competency approach is used not only in language training but also in other fields such as pedagogical theory and practice for the development of testology and standardization.
- Stage Three – 1990 to 2000. During this stage the meaning of term "competence" continues to

evolve and to differentiate into different types by expanding its scope, but often without differentiating itself from the concept of "competency" [21].

Gradually through this stage, in the scientific community and in the international community, the competency approach is asserted as an inseparable part of a new educational paradigm, together with the terms "competence/competency". They also find application in economics, politics and culture in the developed western countries, while in Russia and in other Eastern European countries attempts are being made to differentiate them and also to combine the competency approach with other approaches [18].

- The fourth stage – from 2000 – to the present. During this phase, the framework of the competency approach is clearly outlined. The educational policies in more and more countries are being linked to the implementation of the competency approach. Research and discussions on the identification and evaluation of the key competences and other technological aspects of the competency education, are still ongoing.

In the European Union strategic documents the educational issues are still a topic of interest and are widely considered, namely they consider the requirement to adopt a lifelong learning approach and education and training systems that are more adaptable to the necessary changes and are more open to the world [2]. This requires the development of national qualifications frameworks which are based on relevant learning outcomes and their linking to the European Qualifications Framework. One way of fulfillment of these requirements is by applying the competency approach. Its actuality is dictated by the need for practical implementation of theoretical knowledge and its transformation into activity characteristics [22].

Ultimately, we take as an expected result from the implementation of the competency approach to be the formed ability of graduating pupils/students to act adequately in different problem situations, to be able to activate their own potential for accurate assessment of the situation and to take successful steps to solve the emerged problems.

The expectations mention above have been formulated on the basis of differing views on the nature, importance and ways of applying the competency approach in education.

They point out that the competency approach is a set of general principles defining the objectives of education, the selection of educational content of education, the organization of the educational process and the evaluation of educational results [6]. In this way it influences the main units of the learning process and it emphasizes on the result of the education. However this is not considered as learned information in terms of volume, but as a person's ability to act in different situations.

At the same time, the competency approach is considered as a way of improving the educational system, aiming to assimilate the achievements of the world culture, to form professional knowledge, skills, habits, creative abilities and modes of activity, and the ability for a personal and professional development throughout the year [16].

Its application shifts the focus of the activity, which is transferred from the teaching activity of the teacher, to the learning activity based on the initiative and responsibility of the learners. In this way, training is realized that develops the ability to act effectively beyond the limits of learning situations and problems. The outcome of the education becomes significant after graduation because it results from acquired life-oriented problem-solving set of skills and a developed readiness for productive independent and responsible activity [10].

Competencies and competency

The basic terms in the methodology of the competency approach are "competence" and "competencies". In Western literature, these two terms are in most cases used as synonyms, and in Russian literature they are distinguished [11, 12, 15, 25]. There are various interpretations in the Bulgarian scientific literature which following the implementation of the European and international standards in the educational field in our country, are increasingly consolidated around the terms defined in the official documents [7].

The concepts of "competence" and "competency" have been substantially evolved since their inception. The term "competency" is believed to have been applied initially by N. Chomsky in connection with his linguistic studies [4]. The term "competence" gained popularity on a later stage. Initially, the term „competence“ is associated with human resources management, staff appraisal and the professional education in an industrial management context, as well as improving the effectiveness of professional

performance [3, 8].

The competence describes personal qualities, associated with effective performance and high motivation and represents the interaction of the individual with the environment in order to acquire certain abilities, whereby the self-competence and achievements, influence the subsequent performance through the expected results, associated with certain attitudes and their interpretation [23]. Later, tests were developed for prediction and measurement of the competence as a form of intelligence for a consulting firm. Described this way, the competence encompasses skills and attitudes beyond cognitive abilities such as self-awareness, self-regulation, and social skills; while some of them can also be found in the taxonomy of the individual, the competencies are generally of behavioral nature and could be learned [14, 24].

Later, the application of the competency approach in some aspects of training and development of human resources and language training is expanded [13]. This model of linguistic competence is influenced by similar models of numerical competence, spatial competence and other fields from scientific knowledge [4].

The competence can be understood as a combination of the following elements: knowledge (theoretical and practical), habits (intellectual and practical) and attitudes (value orientations and attitudes) [21].

By using the competency approach the goals of education and the model of achievement of the results are being changed. It is related to mastering the knowledge necessary for the trainees to achieve the predefined goals [19, 20].

Competences represent a dynamic combination of cognitive and meta-cognitive skills, knowledge and understanding, interpersonal, intellectual and practical skills, and ethical values. Fostering these competences is the object of all educational programmes which build on the patrimony of knowledge and understanding developed over a period of many centuries. Competences are developed in all course units and assessed at different stages of a programme. Some competences are generic (common to any degree course); others are subject-area related (specific to a field of study). It is normally the case that competence development proceeds in an integrated and cyclical manner throughout a programme [26].

In the writings of many psychologists, the competence is represented by three main types (Figure.1). Conceptual competence is based on rules, abstract knowledge of the entire subject area. Procedural competence is related to the procedures and skills needed to apply conceptual competence in specific situations. Implementation competencies are needed to evaluate a problem and select the right strategy to solve it [13].

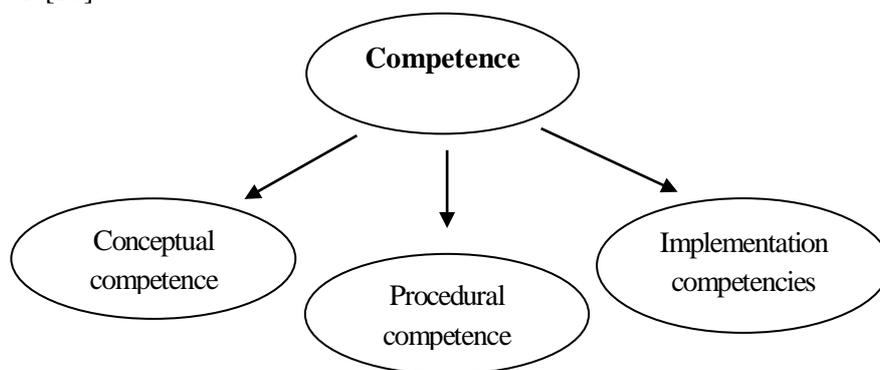


Figure 1. Main types of competencies

Examining the competence and competencies, it is established that competencies are actions resulting from a certain practical manifestation based on open knowledge, skills, experience and legal powers in a certain field, and competence is broader term – with larger scope of its content. Competence is a personal quality, peculiarity and characteristic of an individual as a result from the action and the activity.

Geographical Competence

The application and use of the competency approach in geography and economics education is linked to the formation of geographical competence in the pupils. It is perceived as a triad of process-object knowledge, motion skills and assessment habits for orientating in the surrounding reality at local,

regional and global levels. Lack of meaningful adequacy of each one of these components would lead to deformations and lack of quality geographical education [5].

In the competence orientation of the educational process in geography and economics, the emphasis is directed on the realization of goals related to the motivation, self-determination, socialization and development of the students' individuality. Thus, the main goal of the geographic education is to prepare competent specialists with constructive knowledge of different aspects of life, with habits for creative work with intellectual and professional toolkit, with abilities for social and interpersonal interaction. Goals are defined as outcomes at the end the geographical education and underlie the conceptual change from a content-based approach to a competency approach at the end of education [22].

In the educational process of geography and economics, competence is applied to account the end result of a particular training in the form of geographical competence, mathematical competence, etc. Hence, competence requires students to master the acquired knowledge, skills, competences and values and their use in solving emerging problems in the content area of geographical education.

Conclusions

Based on the above we can summarize:

- The competency approach is one of the modern educational approaches that has important meaning for geography and economics training.
- The competency approach leads to the achievement of the educational outcomes embedded in the curricula. Through its implementation, students' competences are formed and developed, which guarantee the effectiveness of the training.
- Competencies reflect action in a particular practical manifestation, which are based on knowledge, skills, experience and legal authority in a particular field. Competence is broader in scope and broader in content term than competencies. It is the personal quality, peculiarity and characteristic of the individual, which is the result of its activity.
- The expected result of applying the competency approach in geography and economics training is the formation of the ability in learners to act adequately in different problem situations, to activate their own potential for accurate assessment of the situation and to take successful steps to solve the problems that have arisen.
- The application of the competency approach in geography and economics education is expected to contribute to enhancing students' competence, developing their thinking, stimulating the acquisition of critical thinking, creativity and mastery skills, leading to students' personal development.

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