

# Problems of Introducing a Competence-based Learning within the Context of Bologna Process

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**Annotation.** The article analyzes the problems of applying a competence-based learning in higher education. The Bologna process and development of common European higher education area (EHEA) is perhaps the most ambitious project initiated in higher education during the last several decades in Europe. However, not only European nations are involved in the Bologna process. In 2009 the Republic of Kazakhstan also became a member of the Bologna movement. The other Central Asian countries – Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan – do not formally participate in the Bologna process, but are inevitably affected by changes initiated by the Bologna declaration in the area of higher education. In order to support the development of educational studies along the Bologna lines, the European Commission funded the TEMPUS project „Modernization and Development of Curricula on Pedagogy and Educational Management in the Central Asian countries (EDUCA)“. Analysis of study programs developed in the course of implementation the TEMPUS project “Modernization and Development of Curricula on Pedagogy and Educational Management in the Central Asian countries (EDUCA)” showed that project participants encountered threefold problems of introducing a competence-based approach. The goal and objectives of the current study were to discuss these three strands of problems. The problems of defining competences are reflected in certain difficulties of including the component of ethical values. The problems of classifying competences are determined by attempts of the project participants to specify the broad classification offered by the Tuning methodology. The problems of differentiating between the competences and the learning outcomes arise due to the vague understanding of the participants what is the difference between the two concepts.

They tend to treat them as synonymous, though in reality there is an essential difference. Competences are the qualities developed by the learner while learning outcomes are determined by the academic staff. Further clarification of the concept of competences will be needed in order to place the programs completely within the context of Bologna process.

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**Keywords:** *Bologna process, Tuning methodology, competence-based approach, learning outcomes, higher education.*

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## Introduction

The Bologna process and development of common European higher education area (EHEA) is perhaps the most ambitious project initiated in higher education during the last several decades. The Bologna initiative provided a strong impetus for essential changes in the structures and study contents of higher education institutions in Europe. The following objectives were stated in the original Bologna declaration:

- Adoption of a system of readable and comparable degrees;
- Adoption of a system essentially based on two main cycles, undergraduate and graduate;
- Establishment of a system of credits – such as in the ECTS system;
- Promotion of mobility;
- Promotion of European co-operation in quality assurance;
- Promotion of the necessary European dimension in higher education (ŠMM, 2008).

Originally initiated by the four EU member states – France, Italy, United Kingdom and Germany, today the Bologna process includes 47 participating countries. However, not only European nations are involved in the Bologna process: in 2009 the Republic of Kazakhstan also became a member of the Bologna movement. The other Central Asian countries – Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan – do not formally participate in the Bologna process, but are inevitably affected by changes initiated by the Bologna declaration in the area of higher education. The process of developing along the Bologna lines in fact became obvious after Kazakhstan, and especially the Russian Federation, which has a significant impact on the development of higher education in the region, decided to join the Bologna process. All Central Asian countries tend to introduce studies on Bachelor, Masters and Doctoral levels, the European Credit Transfer and Accumulation System (ECTS) and a competence-based approach in their institutions of higher education. Changes are taking place in all subject areas, including the field of education and teacher training. In order to support the development of educational studies along the Bologna lines, the European Commission funded the TEMPUS project “Modernization and Development of Curricula on Pedagogy and Educational Management in the Central Asian countries (EDUCA)”. Higher educational institutions

from Kyrgyzstan, Kazakhstan and Tajikistan, which participated in the project, were guided and supported by their European partners – universities from Germany, Spain, Ireland, UK and Lithuania. The main goal of the project was to develop and implement the curricula, based on a competence-based approach, in accordance with the Tuning methodology, developed during the implementation of the project „Tuning Educational Structures in Europe“. Another goal was the introduction of the ECTS model and evaluation of the learning outcomes. A number of challenges emerged during the phase of developing the study programs. As a result we decided to reflect and analyze the problems of introducing a competence-based approach in education within the context of the Bologna process, which emerged during the implementation stage of the EDUCA project. Within the framework of the international project “Tuning Educational Structures in Europe” a methodology has been designed to understand curricula and to make study programs comparable (Lokhoff et al, 2010). Tuning is the process of making adjustments to the way in which various system resources are used so that they correspond more closely to the overall usage patterns of the system. In our case the Tuning methodology means adjusting curricula in order to make study programs of different universities and/or countries compatible.

The object of our study was the process of development competence-based study programs in pedagogy and education management. The aim of the study was to point out and discuss the problems which emerged during the process of introducing a competence-based approach in Central Asian higher education sector. The objectives of the study were to analyze the problems of defining competences, classifying the types of competences, differentiating between the competences and the learning outcomes. In the study we used the Tuning methodology and the method of comparative analysis of elements of the study programs of Central Asian universities which participated in the project.

## The participants

The project coordinator in Central Asia was a non-governmental, non-profit organization – Education Network Association “EdNet”. Currently the EdNet Association unites members from 32 higher education institutions in Kazakhstan, Kyrgyzstan and Tajikistan. The aim of the Association is to develop and reform higher education in three Central Asian countries. It was the responsibility of EdNet to select universities which could represent Central Asia in the EDUCA project. All participating universities were involved in teacher training and train Bachelor students in the field of education; however, none of them was offering Masters studies in Education Management. Therefore the development and implementation of Masters in Education Management study program became a key innovation of the whole project.

*Table 1. The participants of the project*

Central Asian participants
<p>Kazakhstan:</p> <p>Kazakh National Pedagogical University named after Abai</p> <p>Kyzylorda State University named after Korkyt Ata</p> <p>Karaganda State University named after academician E. A. Buketov</p> <p>Semey State University named after Shakarim</p> <p>Kyrgyzstan:</p> <p>Kyrgyz State University named after I. Arabaev</p> <p>Issyk-Kul State University named after K. Tynystanov</p> <p>Naryn State University named after S. Naamatov</p> <p>Osh State University</p> <p>Tajikistan:</p> <p>Tajik State Pedagogical University named after S. Ayni</p> <p>Khujand State University</p> <p>Kulob State University</p>
European participants
<p>Lithuania:</p> <p>Lithuanian University of Educational Sciences</p> <p>Germany:</p> <p>Magdeburg Otto von Guericke University</p> <p>United Kingdom:</p> <p>University of Cumbria</p> <p>Ireland</p> <p>University of Cork</p> <p>Spain:</p> <p>University of Santiago de Compostela</p> <p>University of Alicante</p>

## Definition of competences

Educational literature does not present a generally agreed definition of competences. The Tuning project suggests the following definition: “Competences represent a dynamic combination of cognitive and metacognitive skills, demonstration of knowledge and understanding, interpersonal, intellectual and practical skills, and ethical values” (Gonzalez, Wagenaar (eds.), 2008). Perhaps the most problematic part of the definition is the value issue. The understanding of ethical values may be very different in different historical, cultural and religious contexts. Therefore the component of values is perhaps the most discussed one in the debate about the competence-based learning. It is often argued that the value issue can evoke contradictions and misunderstandings among the participants of the learning process. For example, Grant (1999) argues that behavioural

objectives, or competences, can never describe complex human behaviour. The sum of what professionals do is far greater than any of the parts that can be described in competence terms. Educational researchers in Central Asian region tend to agree that the concept of competence is problematic. Kazakh authors Iskakova et al. (2013) claim that the term “competence” is a complicated matter and has no definite meaning as it depends on the particular approach used by the researcher. That’s why educators and trainers often limit themselves to the development of knowledge and skills of the learners and prefer to elide the issue of values.

Central Asian universities – participants of the project – had not reached consensus about the place of values in the competence-based education. Therefore the definitions of competences in the study programs presented by the participating universities vary. Some universities do not present their own definition of competences and refer to the general glossary developed during the implementation of the project. Some other universities mention values and ideals in their definitions, some others speak more generally about personal characteristics, and still some others do not mention values at all and define competences as a set of knowledge and skills. Apparently such differences can be explained as a result of differences in understanding the concept of competences which prevail in contemporary educational science. More traditional components of curriculum planning – aims and objectives – are much more convenient in the academic world and project participants encountered no difficulties in formulating them. Even the learning outcomes which were introduced as a part of the Tuning methodology were easier to define than the set of competences.

*Table 2. Definitions of competences presented by the participants of the project*

Kazakh national pedagogical university named after Abai	Naryn state university	Issyk Kull state university
“Competences: a set of basic knowledge, common (universal) skills and personal qualities allowing to achieve positive results in professional and other areas of the life-sustaining activity.”	“Teacher professional competence – possession the required amount of knowledge and skills that define the maturity of his (her) teaching activities, teacher communication and the teachers’ personality as the bearer of certain values, ideals and pedagogical consciousness.”	“Competence – a measure of compliance with the requirements, the degree of development of competence, personal characteristic of the person.”

What is peculiar about Central Asian participants is that they tend to link competences with qualification requirements and point out the compliance with them. Below we present a broad version of the definition of the competences provided in the glossary prepared by the Central Asian expert team of the project:

“The competences are:

- characteristics of the individuals' ability to implement its knowledge and experience in the in the successful operation with a high degree of self-regulation, self-esteem, a fast, flexible and adaptive response to the dynamics of the circumstances and the environment;
- one of the hallmarks of qualifications (degrees, phases, levels);
- compliance with the qualification requirements based on regional needs and demands of the labour market;
- ability to perform specific activities and works depending on the task, problem situations, etc.” (Nikitenko, Dzhanaliev (eds.), 2014).

It's quite understandable that for the Central Asian project partners it is very important to stress the relationship between qualifications and competences. The study programs should demonstrate that they lead not only to the acquisition of a certain set of competences, but also to complying to qualification requirements for a certain academic and / or professional degree. The systems of higher education in Central Asia are governed in a centralized way and have a definite set of standards which all the universities have to follow. Without complying with qualification requirements which are approved by the government the project becomes meaningless as project elaborations can not be implemented in the practice.

## Types of competences

In the Tuning project the competences are divided into two large groups: subject specific and generic ones. However, the Central Asian participants considered the division offered by the Tuning project as insufficient and offered their own variations.

From the examples presented we can see that part of the project participants found the concept of general competences too broad and prefer to divide them into several more specific categories. They point out general cultural, social, communicative, organizational and other competences. Just one university – Semey State University named after Shakarim – pointed out socio-ethical competences – which are related to the value part of the definition of competences presented by the Tuning project (Aubakirova, 2014). Attempts to specify generic competences lead to a twofold effect. On one hand, it helps to understand better a range of generic competences and to formulate them while developing the study programs. On the other hand, it leaves no place for certain competences, which are pointed out in the Tuning project but are difficult to classify under categories, used by the Central Asian universities. For example, it is difficult to place under heading offered by the project participants such competences as the ability to act on the basis of ethical reasoning, the commitment to conservation of the environment, the commitment to health, well-being and safety, the ability to work in an international context, etc. (Lokhoff et al., 2010). In the process of developing the study programs the

**Table 3. Types of competences**

<b>Semey State university named after Shakarim</b>	<b>Kazakh National Pedagogical University named after Abai</b>	<b>Kyzylorda State University named after Korkyt Ata Karaganda State University named after academician E. A. Buketov</b>
<p>General (instrumental) competences:</p> <ul style="list-style-type: none"> <li>- competences of general intelligence</li> <li>- socio-ethical competences</li> <li>- economical and organizational-managerial competences</li> <li>- interpersonal competences</li> <li>- systemic competences</li> </ul> <p>Specific competences:</p> <ul style="list-style-type: none"> <li>- general professional competences</li> <li>- socio-communicative competences</li> <li>- educational-technological competences</li> <li>- organizational-managerial competences</li> <li>- personal competences</li> <li>- competences of specialization</li> </ul>	<p>Competences:</p> <ul style="list-style-type: none"> <li>- social</li> <li>- communicative</li> <li>- informational</li> <li>- special</li> <li>- cognitive</li> </ul>	<p>Competences:</p> <ul style="list-style-type: none"> <li>- general</li> <li>- professional</li> </ul>
<b>Osh State University</b>	<b>Kyrgyz State University named after I. Arabaev</b>	<b>Kulob State University</b>
<p>Competences:</p> <ul style="list-style-type: none"> <li>- general</li> <li>- instrumental</li> </ul> <p>professional</p>	<p>Universal competences:</p> <ul style="list-style-type: none"> <li>- general scientific</li> <li>- instrumental</li> <li>- socio-personal and general cultural</li> </ul> <p>Professional competences</p> <p>Special competences</p>	<p>Competences:</p> <ul style="list-style-type: none"> <li>- general cultural</li> <li>- social</li> <li>- professional</li> <li>- communicative</li> <li>- object</li> </ul>

participants continuously encountered competences which were difficult to place under the headings used by the universities from Central Asia.

## Competences and learning outcomes

The participants of the project did not easily understand the difference between the competences and the learning outcomes. For example, the project glossary explains:

“Learning outcomes is a collection of competences expressing what exactly the student will know, understand or be able to do at the end of the learning process” (Nikitenko, Dzhanaliev (eds.), 2014). In other words, learning outcomes are treated as synonymous to competences. Further the glossary states that learning outcomes have to be linked directly with the training standards. On the other hand, the Tuning methodology claims that “Tuning makes the distinction between learning outcomes and competences to distinguish the different roles of the most relevant players: academic staff and students / learners. Desired learning outcomes of a process of learning are formulated by the academic staff, preferably involving student representatives in the process, on the basis of input of internal and external stakeholders <...> Competences are obtained by the student / learner” (Gonzalez, Wagenaar (eds.), 2008) Therefore, according to the Tuning methodology, learning outcomes are not just collection of competences: learning outcomes lead to the development of competences, but they express the academic point of view of what a student needs to learn and demonstrate and can be referred to a single course unit or module. If the learning outcomes are formulated by the academic staff with the involvement of students, it’s difficult to link it directly with the training standards. The standards are more closely linked with competences as following the standards leads to acquiring a certain qualification. In some stages of project implementation one could feel that participants felt lost in defining the differences between skills, competences, qualifications, learning outcomes and standards. However, as skills, qualifications and standards are more easily defined, the main confusion remained between the definitions of competences and learning outcomes. Though the main goals of the project were achieved, and the new study programs of pedagogics and education management were developed and tested, the further clarification of the concept of competences will be needed in order to place the programs completely within the context of Bologna process.

## Conclusions

1. Analysis of study programs developed in the course of implementation the TEMPUS project “Modernization and Development of Curricula on Pedagogy and Educational Management in the Central Asian countries (EDUCA)” showed that project participants encountered threefold problems of introducing a competence-based approach.

2. The problems of defining competences are reflected in difficulties of including the component of ethical values. Some participating universities include the component of ethical values, some indicate a broader term of personal characteristics, and some completely exclude the value issue.

3. The problems of classifying competences are determined by attempts of the project participants to specify the broad classification offered by the Tuning methodology. However, that leaves no place for certain competences, which are pointed out by the



authors of the Tuning manual but are difficult to classify under categories, used by the Central Asian universities.

4. The problems of differentiating between the competences and the learning outcomes arise due to the vague understanding of the participants what is the difference between the two concepts. They tend to treat them as synonymous, though in reality there is an essential difference. Competences are the qualities developed by the learner while learning outcomes are determined by the academic staff with the involvement of students and employers. They are linked with a level of studies and a single course or a module.

5. Further clarification of the concept of competences will be needed in order to place the programs completely within the context of Bologna process.

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# Kompetencijomis grįsto mokymosi diegimo problemos Bolonijos proceso kontekste

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## Santrauka

Bolonijos procesas ir bendros aukštojo mokslo erdvės sukūrimas Europoje yra bene ambicingiausias pastarųjų dešimtmečių projektas, įgyvendinamas aukštojo mokslo sektoriuje. Jis paskatino esminius turinio ir struktūros pokyčius Europos aukštosiose mokyklose. Šiuo metu Bolonijos procese dalyvauja 47 šalys, tačiau į šį procesą ilgainiui įsitraukė ne vien tik Europos valstybės. 2009 m. Bolonijos proceso dalyve tapo Kazachijos Respublika. Kitos Vidurinės Azijos respublikos – Kirgizija, Uzbekija, Turkmėnija ir Tadžikija – formaliai nedalyvauja Bolonijos procese, tačiau yra stipriai šio proceso veikiamos. Visos šios šalys diegia tripakopę aukštojo mokslo sistemą, ECTS kreditų skaičiavimo modelį ir kompetencijomis grįstą mokymąsi. Tam, kad paremtų šį procesą, Europos Komisija finansavo TEMPUS projektą „Pedagogikos ir švietimo vadybos studijų ugdymo turinio modernizavimas ir plėtra Vidurinės Azijos šalyse (EDUCA)“. Projekte dalyvavo Kazachijos, Kirgizijos ir Tadžikijos aukštosios mokyklos bei jų partneriai iš Europos – Vokietijos, Ispanijos, Jungtinės Karalystės, Airijos ir Lietuvos universitetai. Vienas iš pagrindinių projekto tikslų buvo kompetencijomis grįsto ugdymo turinio sukūrimas, remiantis *Tuning* metodologija. Šio straipsnio tikslas buvo išsiaiškinti ir aptarti problemas, kilusias, projekto įgyvendinimo metu diegiant kompetencijomis grįsto mokymosi modelį. Siekdami šio tikslo, naudojome *Tuning* metodologiją ir lyginamosios Vidurinės Azijos universitetų studijų programų elementų analizės metodu. Diegiant kompetencijomis grįsto mokymosi modelį Vidurinės Azijos universitetuose, projekto įgyvendinimo metu iškilo trejopo pobūdžio problemos: kompetencijų apibrėžimo problemos, kompetencijų tipologijos problemos ir kompetencijų atskyrimo nuo tikėtinų mokymosi rezultatų problemos. Šių problemų identifikavimas suponavo ir atitinkamus tyrimo uždavinius. Kompetencijų apibrėžimo problemos daugiausia buvo susijusios su vertybiniu kompetencijų komponentu. Kadangi etinės vertybės skirtinguose istoriniuose, kultūriniuose ir religiniuose kontekstuose gali būti traktuojamos skirtingai, dalis projekto dalyvių iš Vidurinės Azijos savo pateiktuose apibrėžimuose naudojo bendresnę asmenybinių charakteristikų sampratą, o dalis apskritai nenurodė vertybinio aspekto, apibrėždami kompetencijas tik kaip žinių ir gebėjimų visumą. Skirtumai išryškėjo ir kompetencijų klasifikacijose. Nesitenkindami *Tuning* metodologijoje siūlomu skirstymu į bendrąsias ir dalykines kompetencijas, projekto dalyviai

teikė detalesnes kompetencijų klasifikacijas ir skirstė bendrąsias kompetencijas į intelektines, bendrakultūres, socialines ir etines, ekonomines ir vadybines, tarpasmenines, informacines ir kt. Tačiau buvo susidurta su kita problema: toli gražu ne visos bendrosios kompetencijos telpa į tokius siaurai apibrėžtus kompetencijų grupių rėmus. Trečioji problema – skirtumas tarp kompetencijų ir tikėtinų mokymosi rezultatų sampratų. Neretai projekto dalyviai šiuos terminus traktavo kaip sinonimus, o *Tuning* metodologija aiškiai sieja kompetencijas su tuo, ką įgyja besimokantis, o mokymosi rezultatus – su tuo, kokius reikalavimus kelia ir ko tikisi programą vykdančys universiteto dėstytojai. Mokymosi rezultatai yra siejami su mokymosi lygiu ir konkrečiu dėstomu kursu arba moduliu.

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**Esminiai žodžiai:** *Bolonijos procesas, Tuning metodologija, kompetencijomis grįstas mokymasis, tikėtini mokymosi rezultatai, aukštasis mokslas.*

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