# THE INFLUENCE OF HIGHER EDUCATION TEACHING IN THE DEVELOPMENT OF STUDENTS' COMPETENCES

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#### Abstract

During the last few decades, higher education has been subjected to big changes that reflect the overall changes in the society, and particularly in the sphere of science and technology. In the last decade, almost every aspect of the higher education has been analyzed and redefined in order to advance its quality, ensure the acquisition of knowledge and development of students' competences, in order to successfully respond to the societies' requirements that is constantly changing and developing.

The quality organization of higher education through the realization of the complexity principle means unity of theoretical and practical teaching that is a prerequisite for the realization of the requirements for qualifying students for contemporary science and technology.

The quality can particularly be seen in the acquisition of knowledge and competences in order to answer the ever changing inquiries of the society.

This paper aims to analyze the effects from the influence that the didactic methodological aspect of organization of the teaching has on the development of students' competences. For that purpose, we have used a questionnaire – scalar for the examination of the influence of the organization of teaching on the students' competences. The results shall show the level of development of competences and shall give an input on the action needed for the conception and realization of the higher education teaching

Keywords: Higher education, organization of teaching, students' competences, quality

#### 1. Introduction

The fact that higher education is experiencing transformation from an elite to a mass, affects the changes in the structure, organization, and realization of teaching at universities.

Among the current issues and discussions about the significance and future of higher education are the ones that are related to its effects, contribution to the advancement of the society, and influence on the development of the individual. New researching questions open up such as: which skills and competences, necessary for working in the upcoming decades, should be developed among students? Which combinations of knowledge and skills should be foreseen as necessary and appropriate for productivity and development in the future? What is the significance of the general, and what of the specific competences for life and working in the 21st century? (UNESCO, 2005) These and other similar issues are very often being put into research and academic debates about higher education, especially over the last few decades. This significantly influences the need for improving the quality and efficiency of higher education.

In order to be able to fully monitor the rapid progress of science and transfer it to a university level of education, it is necessary to enter working activities and methods that enable an optimal transfer of knowledge in relation: teacher-student, literature and other sources of knowledge - student, as well as practice or life-student, and all as an addition to the statement that students can not be qualified with knowledge for a lifetime, but they need to be trained for permanent pre-qualification i.e. self-education.

Namely, today the acquired system of teaching methods (verbal textual, demonstrative and laboratory-experimental) enable the achievement of such a requirement, provided they are constantly enriched with new working forms and elements and they are mutually optimal to combine everything with an aim of more rational and successful teaching. This implies that the contents of university studies should be generated from research which need to undergo a didactic transformation by the very scientist who teaches, and it is necessary for subject contents to transform into a subject of educational process of a student. (Gojkov, 2013)

The current situations as well as the predictions for the society development are the main strongholds that dictate the educational goals and educational outputs, according to which the overall educational policy, as well as the study programs, should be conceptualized. The issue of study programs is very important because the quality of their students depends on the quality of their students and employees among the European countries. It can be concluded that the quality of higher education is determined by the quality of the study program, the quality of the teaching-scientific process, as well as the quality of the performance of the educational outputs or the competences acquired by the staff who will complete the study programs. (Gajić, Budić, Lungulov, 2009)

The creation of study programs based on educational outputs and shifting of the focus of the teaching process from the teacher and teaching content to students is a new paradigm in higher education. It involves changing of the basic teaching and learning settings as well as the educational process and directing the goals towards achieving educational outcomes and developing competences.

# 2. Competences needed for life and work in the 21st century

Competences represent a dynamic combination of cognitive and metacognitive abilities, knowledge and understanding of interpersonal, intellectual, and practical skills, as well as ethical values (Gonzalez, Wageneer 2008).

The majority of study programs emphasize expert and specific competences in order to enable students to acquire specific and applicable knowledge and skills in a particular field. But over the last decade, special attention has been paid to the importance of the general competences needed for life and work in the 21st century, regardless of the study. Such competences are transferable in all areas and are very important for succeeding in this world of rapid technological development and social progress.

The new standards for what students should know and can do must replace the basic skills and knowledge that were expected in the past. In order to meet this challenge, the education system and institutions must be transformed in a way that will enable students to develop analytical thinking, flexible problem solving, collaboration and communication skills, they will need for a successful work and life. (Binkley et al., 2012)

However, what is being insisted over the past years and within the framework of higher education reform is the implementation of general or generic abilities, as particularly relevant for students and their future employment. In a situation of large and rapid changes, it can not be expected that the once acquired knowledge will be constantly applicable.

Due to the accelerated development of science and technology, the individual is expected to be ready to innovate, develop new skills and adapt to the demands of the labor market. In this context, the importance of the development of general competences, which receive more space in higher education curricula, is emphasized. The following are examples of these competences:

- Researching ability commitment to achieving higher goals that contribute towards the advancement of knowledge through research;
- Team work Ability to work in a team and accept responsibility for certain tasks;
- Performance management capacity for planning and running projects while taking into account budget and staff constraints;
- Problem Solving the ability to deal with stress and while giving effective solution to the practical problems;
- Creativity an opportunity to be creative while developing ideas and following researching goals;
- Communication skills: ability for effective communication, through careful listening and thinking;
- Presenting the information ability to present complex information in a concise manner (or Lokhoff et al., 2010)

Some authors believe that general skills can be developed and applied only in the context of a particular discipline. Thus, within the specific area of the curriculum, the general abilities are mapped, raising awareness of the importance of cooperation between employers and higher education institutions, in order to adequately define the necessary competences. (High Level Group on the Modernization of Higher Education, 2013)

The use, implementation, and achievement of competences, are one of the most important indicators of quality of the teaching and educational process.

# 3. Research Design

The research carried out within these frameworks is dominated by the descriptive method with all its modalities, i.e. an analysis of the situation, by performing comparison and generalization. Surveys and scaling were used as research techniques.

The subject of this research is the influence of the way the teaching is organized on the development of students' competences. For that purpose, we used two questionnaires: a questionnaire about how to organize the teaching and a questionnaire about the students' competences.

Within this research, a dependent variable is the development of key competences for the 21st century, while an independent variable is: the didactic-methodical way of organizing the teaching.

### 4. Sample survey

The sample of the research is random. The sample of respondents is comprised of a total of 156 students from the third and fourth year of study (78 from the Pedagogical and 78 from the Philosophical facutly at the University of Tetova).

#### 5. Hypotheses

H0: General hypothesis: The didactic-methodical way of organizing the higher education has a significant influence on the development of students' competences.

H1: It is assumed that students can clearly define the most significant aspects of the organization of higher education.

H2: It is assumed that students can clearly define the most important competences for life and work in the 21st century.

#### 6. Analysis and interpretation of the results

It is known that perceiving the learning from students' view presents a challenge for all who participate in the organization and realization of higher education. Every aspect of the higher education is a subject of screening, evaluation, analysis in order to improve it. But the real challenge for teachers is the harmonization of teaching methods and strategies with the criteria for examining knowledge. In this way, the quality of student learning is enhanced. Teachers evaluate the teaching process in order to learn the level of success of their own teaching practice by seeing what are their strengths what are their weaknesses.



The results obtained from the first hypothesis are presented in graph 1:

Figure 1. Teaching organization method

The students at the Faculty of Pedagogy see the fourth, second, and eighth assertions, as the most significant aspects of the organization of teaching, distinguishing: Teachers encourage students to ask questions and seek answers and explanations. Teachers provide clear explanations as to why certain tasks are being performed. Teachers value more when the essence is adopted and the important concepts are understood.

The students at the Faculty of Philosophy see the eighth, third, and first assertion, as the most important aspects of the organization of teaching, singling out: Teachers value more when the essence is adopted and the important concepts are understood. The tasks that are realized require logical thinking and linking knowledge and facts. Lectures are organized in a way that helps students to learn how to highlight important information, assumptions, and conclusions.

Students at the Faculty of Pedagogy, emphasize the ninth and fifth assertions as the least significant aspects of the organization of teaching: It is insisted on individual assessment of the students about the accuracy of the final solution of the problem. It encourages independence in finding possible solutions to the problems.

Students at the Faculty of Philosophy, see the ninth and seventh assertions as the least important aspects of the organization of teaching: It is insisted on individual assessment of the students about the accuracy of the final solution of the problem. For a good evaluation it is enough to remember and memorize the facts.

It can be noticed that the students still see the teacher as the focus of the organization of teaching, at the expense of their role in the process.

The results obtained according to the second sub-hypothesis: The factors for determining which of the most important competences for life and work in the 21<sup>st</sup> century are mostly developed during higher education, are presented in: Table 1 and Graph 2 and Graph 3.

		Total score of the development of the key competences	
	Evaluation of the extent to which the faculty teaching	Faculty of	Faculty of
Number	affects the development of the following competences:	Pedagogy	Philosophy
1.	Creating a positive image of oneself	202	201
2.	Motivation for a personal and professional development	208	207
3.	Accepting responsibility for working and studying	198	191
4.	Monitoring and evaluation of oneself's work and studying	186	172
5.	Flexibility and openness towards new ideas	208	193
6.	Critical thinking	169	168
7.	Ability of finding information among different sources.	185	176
8.	Critical attitude towards available information and sources	165	178
9.	Theoretical studying through practical examples	180	175
10.	Usage/application of theoretical knowledge in practice	187	177
11.	Ambition	181	187
12.	Persistence, perseverance, and commitment	197	196
13.	Respecting others as well as their opinion	214	209

Table 1. Development of students' competencies

According to the students from the Faculty of Pedagogy, the most important competences are: respecting others and their thinking, flexibility and openness to new ideas, as well as the motivation for personal and professional development and improvement. The least important: critical attitude and relation to available information and sources, critical thinking, learning theoretical knowledge through practical examples.



Figure 2. Development of the competences of students from the Faculty of Pedagogy

According to the students from the Faculty of Philosophy, the most important competences are: respecting others and their opinions, as well as the motivation for personal and professional development and improvement, creating a positive image for themselves. The least important: critical thinking, monitoring their own work and study, acquiring theoretical knowledge through practical examples.



Figure 3. Development of students' competences from the Faculty of Philosophy

According to the the respondents from the two faculties, the thirteenth statement is ranked the highest, i.e. respecting others and their opinion, along with the the second, i.e. motivation for personal and professional development and improvement, while, the sixth, eighth and ninth assertions (statements) are ranked the lowest, i.e. critical opinion and attitude towards available information and resources, and acquiring theoretical knowledge through practical examples.



Figure 4. Development of students' competences

In order to determine the influence of the didactic - methodical way of organization of the higher education on the development of students' competencies, the t - test is used to evaluate the significance of the differences between the arithmetic environments both at the pedagogical and the philosophical faculties. The results are shown in Graph 5.



Figure 5. Relationship between the manner of the teaching's organization and the overall competences

Based on the obtained results we can see that the mean value of the didactic - methodical way of organizing the teaching is 174.55, while of the competences is 190.76. Using the t-test, we established that there is a statistically significant link between the didactic-methodical way of organizing the teaching and the development of the overall competences among the students at the pedagogical faculty at the level p < 0.01, thus the established hypothesis is fully confirmed. According to the results obtained from the Faculty of Philosophy, we can see that the mean value of the didactic-methodical way of teaching organization is 174.22, while of the competences is 186.92. By applying the t-test, we established that there is a statistically significant connection between the didactic-methodical way of organizing the teaching and the development of the overall competences among the students at the Faculty of Philosophy at the level p < 0.01, which means that the didactic methodical way of realization the teaching influences the development of students' competences.

# Conclusion

We know that higher education needs to be continuously changed and improved in accordance with changes in the operational and general environment. Technological, social, economic, political, environmental and global factors influence primarily the acceleration of changes and the need to change the education system, as well.

Special attention should be paid to the development of study programs, the cooperation between institutions, mobility plans and integrated training and research programs.

What arises as an imperative is that students should put in practice what they have learned (learning by doing), which points out the need for interactive work, the realization of various forms of professional practice, summer schools, volunteering, case methods in teaching, etc. Certainly all this requires changes in the working, methods and techniques of carrying out the teaching process.

In particular, this means that it is necessary:

- Interdisciplinary approach to the relevant issues and creation of criteria for the knowledge valuable for teaching
- Scientific and critical approach in the teaching process,
- To motivate students to conduct research within the subjects,
- Continuing didactic methodical enrichment of the teaching process and realization of the thorough and advanced assumptions of the problem, research and project teaching with the assurance of a positive teaching environment.

The quality of the teaching process at the same time rests on the paradigm that the focus is on the student, which directly contributes to strengthening of their competence, selfeffectiveness, self-regulation of learning, internal motivation for achieving better academic achievements and a sense of satisfaction.

Apart from the acquisition of competences, emphasis should be placed on cooperative and self-directed learning, responsibility, independence, reflective and critical thinking and creativity of students. Modern ground points and benchmarks for planning and programming of higher education are directed towards competence and curricular approach.

And, of course, the practice as a key factor for ensuring the durability of knowledge and motivation for the promotion of one's own work.

Modern time and new teaching require partners who participate, ask, think, criticize, explore, cooperate and thus develop their independence and necessary competences. So, we can say that, teaching is a place for exchanging experiences, knowledge, information, ideas, suggestions and as such should be respected and thus organized.

The ability of an institution to learn more quickly than others, to learn from the best, to turn the learnt quickly into a plan, to have a vision for changes and to change according to that vision, and also to focus on quality, is what creates the basis for success in a long term period.

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