

The Role of Romanian Universities in Increasing Graduates' Employability. Curriculum Management and Development of Competences Required by the Labor Market

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Abstract. *IT&C instruments have been introduced in teaching and learning in order to facilitate the acquisition of competences and develop abilities for using new media and technologies. They lead to creating the competences which are necessary for a well-trained workforce. The results of a previous study where we wanted to identify the students' main requests regarding development needs by using new teaching/learning technologies have highlighted the support that students want to receive from universities in finding a workplace. Thus, "84% of students want universities to establish partnerships with private institutions or ask for their support in developing projects in which students could participate as volunteers. 64% of students want the curriculum to be adapted to the employers' requests and 59% consider it is necessary to include new teach/learn tools in the process of adapting the curriculum" (Butum, Stan & Zodieru, 2015). The present paper develops the idea that students are very demanding with the quality of their studies and they are focusing to obtain "right" skills for the labor market. We want to develop this analysis by approaching the change/adaptation of the curriculum in concordance to the market needs. We also intend to identify the employers' requests about the young graduates' competences and abilities and the way the employers perceive the role of universities in building human capital.*

Keywords: *development, education, high-skilled employees, skill, higher education, technology adoption.*

Introduction

The data from the National Institute of Statistics on the census in 2011 shows that 14.4% of Romanian population had attended higher education, compared to 7.1% in 2002 (www.recensamantromania.ro). This was a consequence of the fact that higher education was encouraged by measures and reforms, especially in developing the private universities (Korka & Nicolescu, 2007, p.346). Yet figures show a decrease in the number of 1st year students, from 203.683 in the year 2007 to 160.575 in the year 2013 – according to a CNFIS study in July 2014. This is a consequence of a decrease in number of births and in the number of high-school graduates (UEFISCDI-CNFIS, 2014, pp.7-8).

Several studies show that learning is motivated by a variety of factors. High-school graduates are motivated to attend university for the prestige this new status brings about, together with the wish for professional accomplishment or in order to obtain better results (Sălăvăstru, 2004, p.84). A study on 1st year students highlights the degree of contentment/discontent about academic life. The main reasons for a positive experience are teaching/learning, while discontent is related to economic and financial aspects of students' life. According to this field study conducted in 2010-2011, 1st year students are satisfied and very satisfied with theoretical knowledge they gathered (68.10%), with the quality of courses and seminars (63.4%), with the chances to find a workplace (48%) (Frunzaru, 2013, p.82).

As regards 1st year students' expectations about the chances to find a workplace, 48% of the participants were optimistic about their future career and obtaining good results (in terms of prestige and wages). We ask ourselves: how predictable are students when they make assessments about their future career? Which is their perception regarding the curriculum and what they wish changed in learning in order to reach desired results? Stevenson defines predictability as “the possibility that things can happen the way we want to happen” (Stevenson, 2003, p.41). In terms of future employability, we consider that the wish to assert themselves is what determines students to choose majors that offer qualifications in demand on the labor market, the use of practical applications in teaching/learning in order to get abilities and competences that are demanded by employers leads to an increase in chances to get a job, and the wish to access highly-paid jobs in multinationals determines the students to apply for student mobility programs. These are just a few hypotheses that we wish to check by means of a self-applied questionnaire.

Tendencies in public policies in higher education for increasing the graduates' employability. The transition from learning to well-trained work force

According to a report of Education, Audiovisual and Culture Executive Agency (EACEA, Education and Youth Policy Analysis), employability plays an important role in the reform proposed by the European Commission strategy on Higher Education. The report identifies two types of definitions of employability: "employment - centered and competence - centered". The definition centered on workforce employability given by the European Council in "Council conclusions of 11 May 2012 on the employability of graduates from education to training" defines employability as "a combination of factors which enable individuals to progress towards or enter employment, to stay in employment and to progress during their career". The definition of employability centered on competences refers to "a set of achievements - skills, understandings and personal attributes - that makes graduates more likely to gain employment and be successful in their chosen occupations". In developing new qualifications, universities can adapt their curriculum in order to develop competences by new teaching methods based on IT&C instruments and applications. In conformity to the European Commission strategy, by 2010 the percentage of graduates (aged 20-34) employed within 3 years from graduation should be at least 82%. Approaching employability from the perspective of workforce employment has implications on universities' evaluation based on graduates' employability. Approaching employability from the perspective of qualifications has implications on universities' adapting their curriculum, while the development of these qualifications increase the graduates' employment chances (European Commission/EACEA/Eurydice, 2014, pp.61-64).

The European policies regarding higher education internationalization encourage students' mobility on the one hand, to ensure the increase of students' ability to work and communicate in any country in Europe, but also to develop students' European identity, on the other (Brooks & Waters, 2011, p.86). Globalization produces effects in any country, leading to an increase in the level of workforce qualifications as a consequence of technological development (Bell & Stevenson, 2006, pp.41-42). The authors underline the fact that by a high level of human capital qualifications and knowledge, the state's economic performance increases. The approach of education policy from the perspective of human capital starts from the premise of obtaining a national benefit as a consequence of the existence of well-trained workforce. At the same time, education and educational policies are not strictly related to the notion of "free market" (where the demand is the employers', and the offer is represented by graduates), but

represent a complex mechanism where we can identify the competitiveness among universities and students' ability to choose those majors which are correlated to employers' needs (Bell & Stevenson, 2006, pp.43-44). We can thus talk about the quality of education and higher education quantifiable at the level of public educational policies, by access to financial resources necessary for developing the capacities of higher education institutions depending on the classifications resulting from competitions among institutions. Thus, quality in higher education is acknowledge through the "level of excellence" reached by universities and is quantified and "rewarded" in terms of "investment" through supplementary resources allotted from the state budget - "supplementary financing for excellence" (UEFISCDI-CNFIS, 2014, p.23). A definition of quality referring to services said that "quality represents a service's sum of properties which give it the aptitude to satisfy the user's explicit or implicit needs" (Băloiu, 1995, p.151). Although higher education supposes that an education service is "delivered" to students, higher education is rather closely related to social efficiency, focusing less on individuals' personal development needs and more on the efficiency of education system, measured by its capacity to produce human capital with those qualifications, knowledge and abilities which are relevant for increasing productivity in knowledge-based economy (Rizvi, 2007, p.398).

In evaluating teaching/learning, several levels need to be considered: students, the university and the educational context. "The efficacy of learning at student level is determined by: the time dedicated to learning, the learning opportunities offered, the quality of the educational process, the influence of environment factors specific to every student (Gherguț, 2007, p.154). According to the same author, the most important factors influencing the quality of learning are the time dedicated to learning and the learning opportunities or learning method.

Higher education (education, in general) is given the role of building competitiveness and producing well-trained graduates who will build the human and intellectual capital which will meet the demands of economy. As regards the curriculum, it needs to offer those qualifications required by the economy (Avis, 2007, p.121). As regards qualifications, it is easily understood that only those fields of study will prosper which will offer qualifications required by the labor market.

The educational context depends on the opportunities that educational institutions, state institutions and other entities in the community (private companies, NGOs, local authorities) offer to students, in order to maximize

teaching/learning. This way, universities develop a series of partnerships with other universities, facilitating exchanges, the state, through educational policies, stimulates the universities to maintain high quality and private companies and other entities in the community participate in academic projects to help train those graduates they need for developing human capital.

It is well known that students who worked during college (whether part-time or as volunteers) or who participated in school activities will have greater chances to be employed upon graduation. One can notice a direct link between the community and the academia, by getting students involved in volunteering, the so-called "service learning" - the rights and responsibilities which are part of civic life have become part of academic life (Matthews et al., 2009, pp.151-152).

Any change in an economy has implications on the transformation of the educational system and higher education in particular. According to Moeglin, "whenever a crisis or a social transition appears educational system is forced to make transformations to meet the new demands" (Moeglin, 2003, p.46). Thus, the essential role of universities in increasing graduates' employability is fully asserted.

Technological and economic changes have forced work force into professional reconversion. Life-long learning is the key to economic competitiveness and social cohesion (Green, Preston & Janmaat, 2006, p.141) Social cohesion is defined as "an organized system of relations, institutions, means of social control, which gather individuals, subgroups and other components of collectivity into a whole which can come into being and develop. Each collectivity, if it must come into being and develop, needs to have cohesion which will ensure its inner welding, which ensures that individual and collective needs are met, that members are loyal to the whole, that other collectivities are opposed to or involved in collaborative work, in a word each collectivity needs to be internally organized and ordered (Bogdan-Tucicov, Chelcea, & Golu, 1981, p.201).

The prognosis on labor market represents a means to observe which is the level of qualification demanded by the employers and which are the specific abilities that employers prefer when they employ staff.

Employers' perception on the students' level of training on entering the labor market in Romania

The relationship between the educational environment and the labor market has been one of the most important types of interdependence to be met in modern society, a relationship typology which requires mutual conditioning.

The researches on the educational environment in general and the academic environment in particular have triggered the development of new theories, models and practical development possibilities, in various economic sectors. These new theoretical perspectives were bound to be tested on the market, and this is how new development opportunities were included on the business environment agenda.

On the one hand, the business environment was lured by the idea of getting further profit because of new technologies/services development or improving the already-existent ones or making them more efficient. These requirements meant important financial resources and further know-how from employers and an *a priori* existence of well qualified workforce, used to work coherently and efficiently with the new technologies.

On the other hand, the educational environment focused on establishing better communication with employers, developing joint projects and establishing lasting partnerships for employing graduates (and also encouraging internship during school years).

Inevitably, both parties had high expectations, based mainly on the other party's involvement. There are well-known debates in the public space about the employers' discontent about the students' poor training from obsolete curriculum, inadequate to new tendencies in markets and business development (PRO -VOCATIE Study, 2013).

On the other side, universities in Romania denounce poor involvement of employers in students' practical training (usually during internships), their disinterest in recruiting the most talented students (from early years of study) and the relatively low number of joint research projects, in view of implementing research results (Tobias, 2010, pp.3-6). One can only ask rhetorical questions about the validity of these assertions, which will not lead to the improvement of the current situation.

However, what we can remark in different studies the employers' perception on academic training, also the quality of graduates upon recruitment and employment. Obviously, there are a lot of employers' perspectives on employees' training, involvement, efficiency, efficacy, but in what follows, constrained by space and context, we will only highlight the most important (according to the ICCV study, 2010).

Analyzing in the first instance the employers' general expectations on potential young employees, CSOP study in 2007 (nationally representative, conducted on several thousand employers) shows that young people's foremost quality is: being efficient in what they do (76%), well organized in their activity (12%), hard-working (14%).

The results of the study indicate without any doubt that employers are focused on *efficiency* and less on *organization* or *effective strength*. The big differences (approximately six times bigger between the first and last two) suggests that organization and strength are already considered by employers as implicit attributes, which inevitably lead to employee efficiency, which is an aim in itself.

Another interesting perspective highlighted by employers in the study is the focus on the main reasons why candidates are rejected in recruitment interviews (data from CSOP poll, 2007). The data show that the main reasons are: unsuitable training (24.6%), insufficient experience (14.9%), inadequate presentation during the interview (13.8%). The employers' main discontent is poor training, which is more important than experience. The inadequate presentation highlights shortcomings in terms of personal marketing. The employers' focus on the employees' good image is without doubt a serious challenge that needs to be considered by young employees. To conclude, the overall image of the desirable candidate is that of a young person with good professional knowledge, well-organized, willing to work and having a good personal image, able to be efficient in work.

As regards employers' perception on graduates' qualifications compared to previous generations, 38.3% are of the opinion that a decrease in the level of competence is visible to a high degree, while 16.3% believe that this decrease is visible to a very high degree (CSOP 2007). It is interesting to note that young people's easier access to information by IT&C and the new media is not translated into an increase in competence (or not felt as such by employers).

To have a complete image on the perception of qualities a graduate needs for joining the labor market we investigate the perspective of the educational parties. According to an ARACIS study in 2010, a profile of the

ideal student was made from the perspective of academic staff. The ideal student should: keep a balance between university life and personal life (which includes efficient negotiation of classes and personal time), be involved in a students' organization and volunteer, have critical thinking abilities and be interested in classes they attend (ARACIS, 2010, p.117).

Comparing the results of this study with previous results in the CSOP poll in 2007 on employers' perception on graduates' qualities, we can conclude the following. First, this profile of the ideal student does not include the main trait mentioned by employers, efficiency. It is quite interesting that academics did not highlight efficiency as a trait helping accumulate information in courses and seminars (or the efficiency of translating theoretical information in practical examples in seminars, for instance).

Another interesting perspective comes from employers, on the qualities of a graduate. Surprisingly, employers do not seem interested in finding a balance between personal life and workplace, an option which was not expressed directly or indirectly. There are common traits in both studies, such as active involvement in acquiring useful information and new competences, commitment in developing activities, participating in classes or work program. One must also mention that in employers' options there is a cultural pattern which feeds employers' preference for graduates' qualities, depending on their countries of origin. For instance, in Kazakhstan employers rank equally preferences for behavioral and employees' general and/or technical abilities, while in Poland studies show that 70% of employers prefer behavioral and/or attitudinal abilities to technical ones (Dimian, Roman & Muresan, 2012, pp.47-48). To summarize, we conclude that in certain cultures behavioral/attitudinal factors are implicit (preexistent in the graduate's luggage during the interview and at work), while in others these factors are mentioned explicitly, and graduates having these characteristics are preferred.

Within this paradigm, analyzing the employers answers in the studies analyzed (CSOP 2007, ICCV 2003, 2006, 2010), we are of the opinion that behavioral/attitudinal qualities (such as: involvement, uprightness, efficiency, proactive attitude) are often mentioned explicitly in the profile of desirable candidates. In other words, employers' prevalent opinion is that they will favor graduates with pre-existent behavioral and attitudinal abilities, with high technical, theoretical and, importantly, practical competences.

We believe that in future years one of the highest challenges in terms of education and efficient insertion on the labor market is the continuous negotiation of the two parties' interests, who should be on the same page on finding a solution to punctual challenges, which generate problems of interest to both.

Students' perception on the current curriculum and the need to change the curriculum in order to acquire competences necessary upon employment

Methodology

The present study focuses on developing an analysis conducted in May 2015. The questionnaire applied to a sample of 120 undergraduate, graduate and doctoral students from the National University of Political Studies and Public Administration, the Eftimie Murgu University from Resita and University of Bucharest was meant to identify students' main requests regarding development needs by using new teaching/learning technologies.

The study was conducted on the basis of a questionnaire with 21 closed questions, beside information for respondents' identification. The questionnaire was self-administered. The sample was *ad libitum*.

The answers to these questions highlighted the students' perception on learning and adapting the curriculum in order to increase chances for getting a job. The students had to answer questions regarding their perception on subjects they study.

The questionnaire was built to identify in analysis the students' expectations regarding the development of competences and abilities necessary for getting a job with implications in changing/ adapting the curriculum also identifying the way students take decisions when they have to solve current issues about curricular activity - like using the forums for solving practical applications.

The present analysis focuses on the the work hypotheses for the self-administered questionnaire-based quantitative study is that the change of curriculum in Romanian universities will lead to positive results in learning and the acquirement of high professional competences; also changing/adapting the curriculum will lead to an increase in students' employability.

Findings

To the question: “Do you consider that the subjects studied (with the IT&C instruments used at present) are sufficient to develop the competences which are necessary for obtaining a job that meets expectations” the students were prudent in making positive remarks, 54% of them having low expectations as regards the development of competences necessary for getting a job (Figure 1).

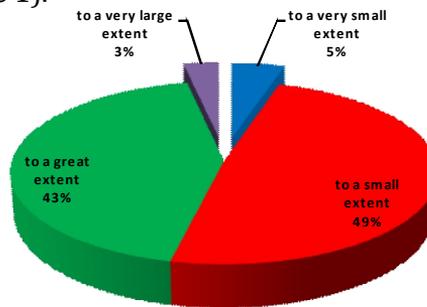


Figure 1. Students' view on competences development through the present curriculum

The students answered questions related to the improvements they would make to the current curriculum to meet labor market demands. The answers highlighted several aspects, among which: in current subjects there is too much theoretical information – 34% of the people questioned desire a change in the present curriculum (Figure 2), there are subjects which have no connection to the field of study – 40% of the students are discontented (Figure 3), not many practical applications are used in teaching/learning – 70% of students want more practical applications to be introduced in seminars, more support is required from professors and team work would be appreciated – 50% of the students consider forums on interpreting results in practical applications (with the professor's participation) a useful and very useful idea (Figure 4).

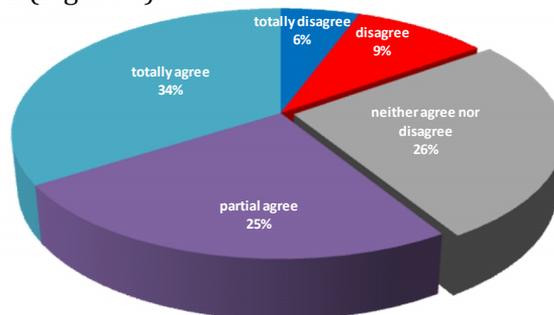


Figure 2. Students' perception on excess theoretical information

Students perceive the existence of excess theoretical information because it is not correlated with many practical applications that would help fix notions and show their practical implications

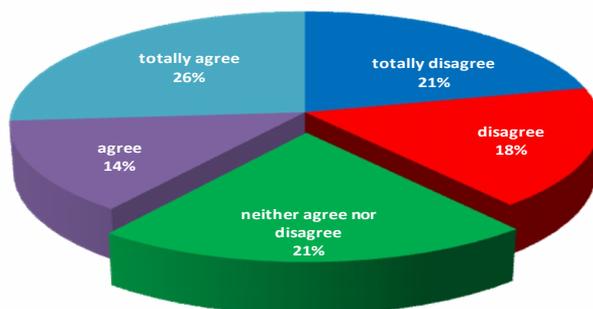


Figure 3. Existence of subjects which are not directly connected to the field of study

In this case as well the perception that there are subjects which are not connected to the chosen field of study can be interpreted as poor focus on subjects because of the absence of modern teaching instruments and the lack of correlations with practical applications in the chosen field of study.

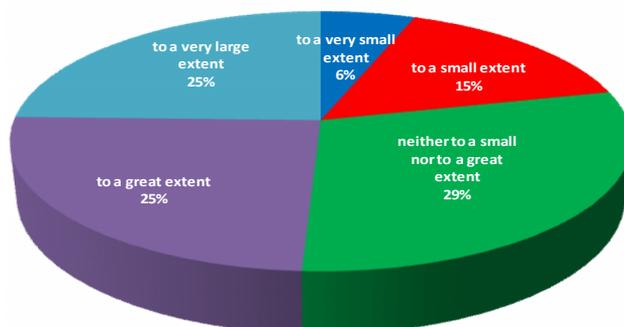


Figure 4. Using forums for solving practical applications

The students highlight that generally there is correlation of information in the subjects and a correlation among subjects (the information gathered in a subject are the foundation for subsequent subjects) – figures 5 and 6. The students did not identify the existence of contradictory information among subjects, 61% of the students being of the opinion that there is no contradictory information on terms definition or use of notions.

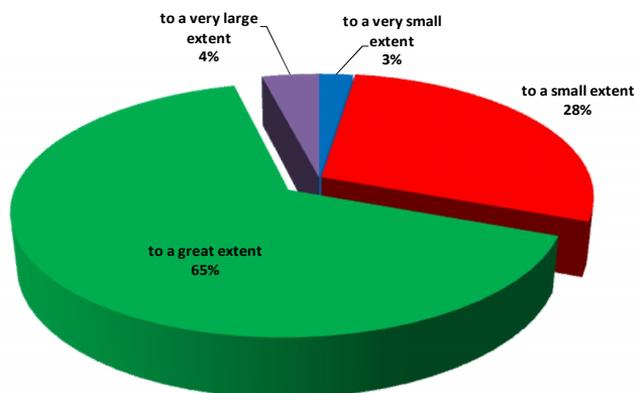


Figure 5. Information in subjects is correlated

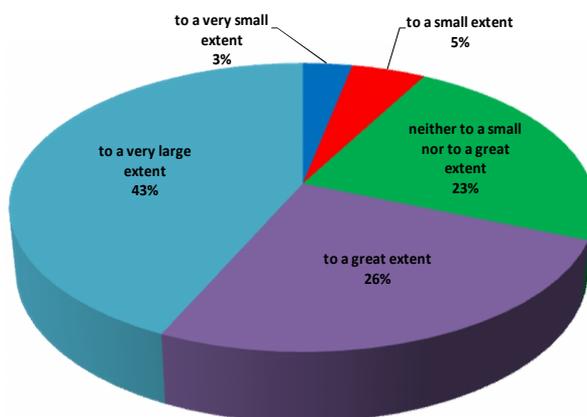


Figure 6. Existence of connections among subjects

The students want the university to have partnerships with universities in Romania and other European countries in order to take part in joint educational projects, which involves students visiting universities in the country and abroad. 78% of the students consider that these partnerships will contribute to a high degree and very high degree to the increase in chances to get employed upon graduation.

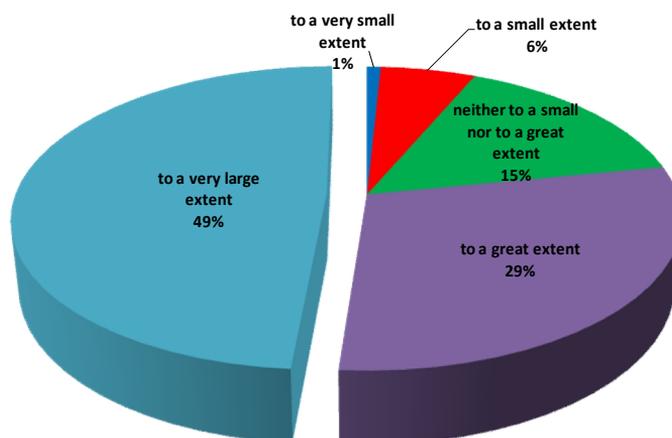


Figure 7. Correlation between students' mobilities and getting employed

The best paid jobs are certainly those from multinationals. The exchange programs help students develop team work abilities and efficient communication abilities in teams.

A possible comparison between the results of our study (focused on the student's perspective) and the above mentioned studies (focused both on the students but also employer's perception) emphasizes the following characteristics:

1. In principle our study confirms the same tendencies regarding the perception of students about insufficient practical skills acquired during the class and the excess of theoretical information in the curricula
2. Our study evidenced the need of supplementing the curricula with more applied methods for teaching and learning, also sustained by modern techniques and technologies
3. Our study showed the same gap (as above mentioned studies) between personal expectations and self-evaluation (both of students and employers) and the real tendencies in the actual labor force market.

Conclusions

Both students and employers agree that there should be more practical knowledge upon graduation. Studies on public policies in the field of education, the analysis of students' perception on teaching/learning (based on self-administered questionnaire) and the analysis of employers' perception on students' training (based on studies and polls) highlight the fact that in order to increase employability students need to prove during their studies that they are involved in academic activities, personal

efficiency in reaching objectives (for instance, learning for obtaining a scholarship or a part-time job) and a proactive attitude in solving curricular and extracurricular projects.

Change of curriculum by introducing more practical applications in teaching/learning targets the building of those abilities required by employers. On the other hand, it is necessary to build efficiency in translating theoretical information in practical examples. At the same time, it is necessary to correlate development agendas of both employers and employees. From the data we analyzed we conclude that employers' tendency is to make employees' work more efficient (with all subsequent implications), while potential employees are required to better know work conditions and request more efforts from employers for integration in the workplace.

In this broader context, universities are required to gather and give a voice to requests by employers as regards development necessities. The adaptation of curriculum to development needs of various sectors in the labor market represents both a goal and an evident necessity. Encouraging the dialogue between the university and employers needs is necessarily to find new forms of cooperation, such as joint research contracts, internships, and joint development projects. It is also recommended that current and future governmental policies be centered on consolidating the relationship between the university and the business environment.

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