Ekonomia, Edukacja i Kreatywność

Streszczenie

Dostosowanie usług edukacyjnych do potrzeb lokalnego rynku pracy może zostać rozwinięte przez wdrożenie nowej roli uniwersytetów w kontekście potrzeby rozwoju gospodarczego, a mianowicie przez wspieranie twórczego kapitału swoich absolwentów. W artykule przedstawiono twórczy potencjał uczniów z rumuńsko-węgierskiego obszaru transgranicznego poprzez wskazanie głównych cech twórczych studentów, a także ich postaw i preferencji. Autorzy starają się zweryfikować wyniki badań innych naukowców, którzy analizowali to zjawisko, biorąc pod uwagę specyfikę obszaru na którym prowadzono badania. Oczekujemy wsparcia ważnej zmiany celów i treści programów nauczania w uczelni przyszłości w zakresie nacisku na rozwój kreatywności studentów.

Słowa kluczowe: *oryginalność, kapitał twórczy, wyższe wykształcenie, cechy studentów*

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4 Economy, Education and Creativity

"Now is the time for every teacher to become more creative"
(Rhodes, 1961)

Abstract

Adapting educational services to the demands of a local labor market can be replaced by a new role for universities in a specific geographic area in need of economic development, namely the fostering of the creative capital of their graduates. This paper presents the creative potential of students from the Romanian-Hungarian crossborder area by showing the main characteristics of creative students and some of their attitudes and preferences. It attempts to verify the findings of other researchers who have studied this phenomenon, considering the realities of the area under investigation. We expect to support a major change in the aims and content of curricula in the future university regarding the emphasis on developing students' creativity.

Keywords: *originality, creative capital, higher education, students' characteristics*

The study is part of the „HERD: Higher Education for Social Cohesion, Cooperative Research and Development in a Cross-border Area" (HURO/0901/253/2.2.2.) a research project supported by the European Union European Regional Development Fund.

1. Introduction

What are the factors that influence the level of development of a community? The studies that attempted to give an answer to this question were based on theories of growth and economic development. Some said that the basis of development is material resources, others mentioned technology, others emphasized the human resource (later called human capital), and others assumed it is the organization, the management or the position of the markets, territorial homogeneity, or even the natural environment.

If all these elements influenced industrial development in the past, now they can only partially explain the recent type of development, in which the emphasis has moved from quantity to quality (economic growth – economic development – socio-economic development – sustainable development). The role of innovation or creativity in companies' or towns' striving to reach top positions has become more visible (Nordstrom, Ridderstrale, 2008; Florida, 2005). Moreover, development today is not limited to economic aspects - the development equation now includes elements such as the social environment, comfort, inter-human relations, security, and other factors not previously considered.

Within the academic world today we are witnessing the proliferation of the entrepreneurial university concept, which tends to replace the classical Humboldtian view. Under these conditions, many universities are strengthening their relationships with the business world through consulting, research, internship contracts and other collaborative ventures.

Today, economics has entered all the sectors of human activity: people constitute the *labor force* or *human capital* (Becker, 1993), the university has become an *educational service*, the academic space has become *competitive*, people speak about *the social rate of return from academic research* (Mansfield, 1991), and talk about *industrializing knowledge* (Branscomb, Kodama, Florida, 1999).

Consequently, we can speak about the evolution of higher education in terms of three Cs: Cognition, Competences, and Creativity; each of them corresponding to the goals of academic activity through the years. The classical university had the priority of *cognition*--the transmission of valuable knowledge to students. The contemporary entrepreneurial university fosters the formation of *competences* that contribute to economic development. The future university will need to focus more on developing *creativity* so that its constituents will be able to deal with and even produce change, to plot new directions, to propose new solutions, and therefore to ensure sustainable development.

Considering Florida's creative class theory (2002) makes it necessary to rethink the ways of understanding the relation between universities and the labor market. Rather than setting goals like preparing their graduates for the labor market, universities should establish the basis for the creative class that will generate development and new jobs in specific domains of talent, and adapt the labor market to this talent.

2. Creativity and efficiency. Can creativity be the engine of development?

Creativity has long raised the interest of researchers and therefore has received numerous approaches: "mystical approaches", "pragmatic approaches", "psychodynamic approaches", "psychometric approaches", "social-personality approaches", and more recently, "confluence approaches" (Sternberg, 1998, p.10).

What is in fact creativity? Psychology textbooks often present the definition developed by Taylor: "Creativity is the ability to shape experience in new and different forms, the ability to

perceive the environment in a plastic manner and communicate to others the unique experience that has resulted" (Taylor, 1959, p.51). Torrance (1974) considers it to be a set of skills: "fluency, flexibility, originality and ability to sense deficiencies, elaborate, and redefine." Guilford identifies no less than 150 intellectual and behavioral abilities to be characteristic of creativity (Guilford, 1985) and Karlyn Adams (2006) expresses it graphically as being at the intersection of: knowledge, creative thinking and motivation (Adams, 2006, p.4). In 1961, Rhodes structured creativity in a conceptual scheme of the 4 Ps: "person, process, product, and press (environment)", and in 2013, Vlad Glăveanu proposed a more comprehensive framework, that of the 5 As: "actor, action, artifact, audience, and affordance" (Glăveanu, 2013).

Creativity can be measured using methods based on divergent thinking (Houtz, Krug, 1995), psychometric, biographical, and historimetric approaches (Plucker, Renzulli, 1999), or indicators of creativity (Florida, 2002).

All these approaches for understanding creativity emphasize the multiplicity and complexity of this mental process, but also the need to clarify the elements that distinguish between a creative person and a common person, and to identify the mechanisms that stimulate creativity, based on an increased demand for creativity in all economic and social sectors.

In the workplace, creativity is facilitated by factors such as: "challenge, freedom, resources, work-group features, supervisory encouragement and organizational support" (Adams, 2006, p.31-32). A good performer is undoubtedly a valuable person, but only if there is a conceptual person that initiates, directs, adapts and develops the activities, using creativity. For Sternberg, the economic importance of creativity refers to the fact that „new products or services create jobs". In order to remain competitive, "individuals, organizations and societies must adapt existing resources to changing task demands" (Sternberg, 1998, p.3).

For David Ricardo (1817), the competitive advantage is derived from the comparative costs, while in the HOS theory (see Heckscher, 1919; Ohlin, 1933; Samuelson, 1949) it is explained according to the abundance/scarcity of production factors, and the Romanian economist Mihail Manoilescu (1929, translation 1986) explains it according to the differences in the labor productivity.

Focusing only on the competitive advantage offered by production factors at a given time, without taking into account their changing role in different stages of economic development, can eliminate the competitive advantage and bring major disadvantages to the economic and social development of a country. This is emphasized more in the new development stage, the *knowledge society* where innovation and creativity have a fundamental role and where investment in education and research proves to be efficient. "The past few decades have been one of profound economic transformation. In the past, natural resources and physical capital were the predominant drivers of economic growth. Now, human creativity is the driving force of economic growth. Innovation and economic growth accrue to those places that can best mobilize humans' innate creative capabilities from the broadest and most diverse segments of the population, harnessing indigenous talent and attracting it from outside" (Florida et al., 2006, p.3).

In the medium and long term, Porter and Stern (2002) favor educational policies that support training for a knowledge-based society, since "Innovation has become perhaps the most important source of competitive advantage in advanced economies", a claim supported by economies "such as Finland and Taiwan, that have proactively built innovative capacity" (Porter, Stern, 2002, p.15). They conclude that "Building national innovative capacity will represent the fundamental

development challenge facing many countries for years to come" (Ibid, p.15). Differences between countries in terms of innovation and its intensity "depend on an interaction between private sector strategies and public sector policies and institutions. Competitiveness advances when the public and private sectors together promote a favorable environment for innovation" (Ibid, p.2).

The analysis of some creativity islands, such as Silicon Valley, and even the *brain drain* phenomenon justifies the analysis of creativity, but also highlights the role of universities in this process: "Any discussion of the university's role in innovation and economic development quickly circles back to the now classic cases of Stanford University and MIT, which played critical roles in the development of Silicon Valley and the greater Boston area" (Florida et al., 2006, p.2). In Romania, such a creativity island is outlined by providing the research infrastructure to the Magurele platform, and further by grouping excellent human resources that serve this business location in Bucharest universities, situated near the platform, with the benefit of keeping specialists in the country. Romania has an important creative potential, especially in universities, and this potential has the chance to become creative capital, under the condition of restructuring the content and methodology of teaching in universities.

Universities have changed over time in terms of the aims, tasks, contents, and teaching methodology; and today they accomplish important missions as educational institutions, research centers, cultural centers, and social centers (Kotlyarov, Kostjukevich, 2011). In these conditions, universities must rethink their purpose in terms of the *production* of creative capital. If society "often perceives opposition to the status quo as annoying, offensive, and reason enough to ignore innovative ideas" (Sternberg, 1998, p.90), this should never happen in the academic field.

Analyzing the educational process from three perspectives: functional, structural, and operational (Curtu et. al., 2010, pp.6-7), it is obvious that changing the learning objectives in the sense of moving the emphasis from knowledge and skills towards creativity (noting that neither knowledge, nor skills do not lose their importance, but their role changes: from finalities of education to vectors for the development of creativity), requires major changes in the structure and methodology of the whole educational process.

Defined as a set of attributes and skills that can generate novelty and value under favorable conditions, creativity is considered today as one of the scarce resources--sought, valued and cherished as a true "Lever of Riches" (Mokyr, 1990). Today, the talent thesis, that of innate creativity, is being replaced by its contrary thesis: that of achieved creativity, learned and practiced, which doesn't exclude native talent, but rather completes it. Therefore, teachers who are prepared for the new outcomes of education must be creative themselves in order to develop the creative potential of their students (Gregerson, Kaufman, Snyder, 2013). Through education, argues Hatos, we can increase the acceptance of change or even the appetite for it, which is necessary, considering that "the contemporary world is one of a constant transition" (Hatos, 2006, p.70).

3. Scientific approach

3.1. Research question

We started our explorative study with the assumption that in universities, there is an important creative potential. This assumption is based on the fact that the goals of higher education include the development of transferable skills and increasing the capacity for comprehension and synthesis. These objectives are closely related to the degree of development of creative thinking. But the question underpinning our study is whether this creative capital is indeed fostered in

higher education institutions in the studied area when the student profile does not fit the known pattern of a creative personality.

3.2. Research objectives:

- - Identifying the creative potential of students, its dimensions and structure in the universities from the Romanian-Hungarian crossborder area.
- - Elaborating a profile of students with creative potential: freedom, satisfaction, tolerance, job aspirations in line with this potential.

3.3. Research methodology

The creative potential of students was measured by self-reporting of values such as originality, imagination, freedom (and not by educational level and highly ranked social position of employees, as in the case of Florida et al., 2006), since creativity is not always correlated only with these issues and it is sometimes considered that "creativity can best be understood as a Darwinian process of variation and selection" (Simonton, 1999).

The elaboration of the profile of students with creative potential was based on the analysis of the data from the social survey based on questionnaires addressed to students, conducted in the universities located in the Romanian - Hungarian cross-border area, during March to August 2012. The sample includes 2619 cases, 1296 in Hungary and 1323 in Romania, and it was designed to be representative of all the educational levels and study programs. The questionnaire was structured around several themes, such as school performance, choices and academic aspirations, academic engagement, school cohesion, satisfaction, Internet use, attitudes toward minority groups, leisure, and employment. The questionnaire was sent to full-time students enrolled in BA and MA studies (84.1% - BA, 15.9% - MA). It was found that 71.3% of them pay tuition for their studies and 70.6% come from urban areas. The mean value of students' age is 22.4, with a standard deviation of 3.01. Analysis by gender shows that 63.9% are females and 36.1 % are males.

3.4. Data and methods

In this study, we asked a question regarding the importance given to originality and imagination. For further analyses, we used the dichotomous version of the variable, making the demarcation between students who highly appreciate originality and imagination and those for whom these values are not important (11% - non-creative; 89% - creative). Our analyses were conducted in order to explore and identify possible differences and similarities between creative students and less creative students.

For the measurement of academic engagement, we used a summative scale. The scale had 4 answer choices, from *Never* (1), to *Very Often* (4). We conducted factor analysis using the Principal Component extraction method and the Varimax with Kaiser Normalization rotation method. The analysis revealed four dimensions, with the following percentages of the variance explained: 19.8 for the first dimension, 19.2 for the second one, 12.8 for the third one, and 11.7 for the last dimension. The First dimension refers to the counseling part of the academic activities (*I discussed about my grades and homework with a teacher, I discussed my career plans with a teacher or counselor, I discussed ideas about readings or classes with teachers outside class, I received a written or verbal feedback*) and the Second one refers to active class participation items (*I raised questions or participated to discussions in courses and seminars, I did a presentation in class, We prepared two or more drafts of a paper before I finished it, I worked for a project or a paper that required integrating ideas and information from various*

sources). The last two dimensions refer to the collaboration with minority students and to the cohesion of the students' group. In the present study, we used the score on active class participation, which has a normal distribution, with a mean value of 12.1, a standard deviation of 3.28, and a score on mentoring (A mean value of 7.19, and a standard deviation of 2.53). Both scores showed good reliability (Cronbach alpha above .700).

Regarding academic performance, we analyzed the results for a *Yes-No* scale. Questions referred to student's research interests, their academic awards, scholarship, language certificate, etc. We used factor analysis, selecting the Principal Component extraction method and the Varimax rotation method. The results showed three dimensions and in our analysis, we used the first one that explains 19.73 % of the total variance. The score refers to student's research performance (*I have my own research theme that interests me, I attended a student/general scientific conference with a paper or a poster, I have published at least one scientific article)*. Cronbach alpha of this scale is above .700.

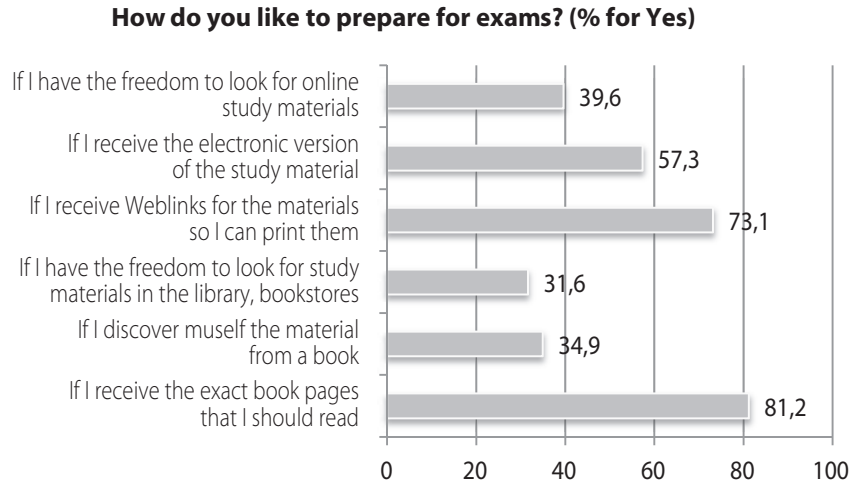
In order to analyze how students relate to the learning process, we used data recorded on how they prefer to prepare for exams (*Yes-No* scale).

The factor analysis using Principal Component extraction method and the Varimax with Kaiser Normalization rotation method revealed two dimensions. One component refers to methods that involve creativity in the assimilation of the content from the study materials, and one that implies less demanding ways due to the fact that the learning materials are distributed by teachers. Both scores are reliable.

For the analyses of the use of the Internet, we used the 5-item scale regarding students' frequency of using the Internet in their academic activities (answer scale: every day, at least once a week, at least once a month, rarely, never): *I access the university/faculty/ department webpage to find important information for me*, *I am searching information about the courses or seminars using specialized portals for public access*, *I am searching for materials using specialized scientific databases* etc. The Cronbach Alpha for the scale is .832.

To assess student satisfaction level regarding several aspects about academic life, we used the

Figure 1. Methods of preparing for the exams



responses to a scale focused on academic activities, relationship with peers and teachers, infrastructure and adaptability to the conditions in the University campus, extracurricular activities, and the prestige of the university. We used a 4 scale answer from V*ery Pleased* – code 4, to *Very Unpleased* – code 1.

We used factor analysis to identify the principal components of this scale. We selected the Varimax rotation method and results indicated three dimensions: extracurricular activities on campus and outside (*Accommodation outside campus, International programs, Opportunity to practice own religion/spirituality in campus, Entertainment opportunities in campus, Opportunities for sport in campus, Internships*), academic activities (*Teaching quality, Subject knowledge by teachers, Accessibility of teachers, Attractiveness of courses, Level of difficulty of class materials, Interaction in class*) and infrastructure and adaptability (*Technology use (computer, projector, etc.), Conditions in rooms for courses and seminars, Amount of work required from students, Equal treatment of students, Accommodation on campus, Possibility to prepare for courses inside campus, Internet access in campus*). All scores have good reliability with Cronbach alpha above 0.700.

For the evaluation of students' attitudes toward various minority or disadvantaged groups (Roma students or other ethnic minorities, students with disabilities, students from families with many children etc.), we used the question *How would you assess if you colleague, belonging to the following groups…, would live in the same room with you* with 4 answer items: 1. *I would firmly reject the idea*, 2. *I would rather not accept this idea*, 3. *I would rather accept the idea* 4. *I would totally agree with this idea*. Scale reliability is proved (Cronbach Alpha = .935), so we built a score for tolerance toward minority groups.

Regarding the valuation of certain job characteristics, we used a scale with 4 answer items, from *4. Very important*, to *1. Not at all important*. We conducted a factor analysis to extract the principal components, using the Varimax with Kaiser Normalization rotation method. Analysis revealed four dimensions on the scale and in the case of all scores the reliability is proven (Cronbach alpha is above.700). For the following analyses we used the first score that refers to an interesting job, people-oriented and with a responsible position (*An interesting job, With good atmosphere, With sensation of success, To be able to meet people, Useful to society, To have responsibility, To give me opportunity to help people, With friendly and helpful colleagues*), and the third score, that refers to a more goal-performance-oriented job (*Performance oriented, To work in a team, A professional challenge, To have the opportunity for improvement, To be in a well-known company*):

4. Research results

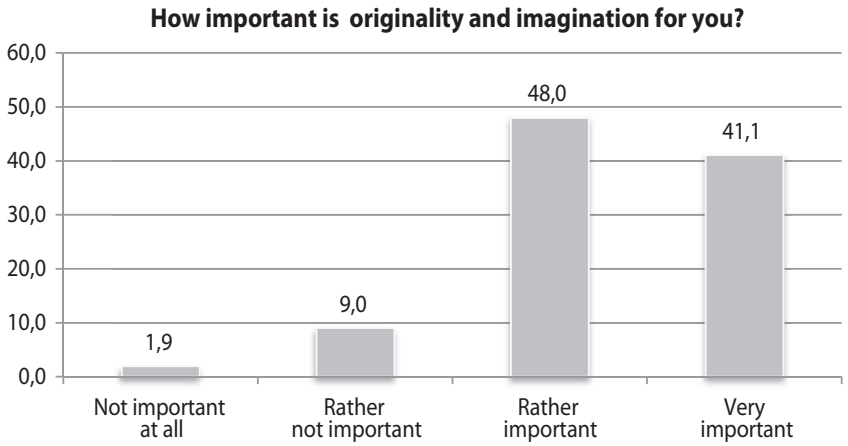
4.1. Dimensions and structure of the creative potential in the universities from the Romanian – Hungarian cross-border area

As shown in the figure below, almost 90% of students say that originality and imagination are important or very important to them, and only 11% do not value them.

We interpreted the assessment of originality and imagination given by the students as an understanding of the importance of creativity in our world and especially in the future society, but also as their desire to be creative. We consider that the evaluation of creativity as being very important to them may suggest a closeness or even identification with the creative, original personality.

The very high percentage of students who consider value originality, justify the thesis that creative capital is found in the academic field. This finding can explain the lack of significant differences between the importance given to

Figure 2. Evaluation of the importance of originality and imagination



originality and imagination between countries (Pearson Chi-Square = 0.567, p = 0.451, df = 1), between men and women (Pearson Chi-Square = 0.030, p = 0.862, df = 1), between academic cycles (Pearson Chi-Square = .009, p = 0.926, df = 1) or even between different study programs. However, in the case of students enrolled in the Arts and Humanities (history, philosophy, theology), the number of those who appreciate originality/creativity is higher than the value recorded in other specializations (Pearson Chi-Square = 4.44, p = 0.035, adj. residual = 2.1, df = 1).

This creative capital can be the foundation for the *creative class*, of course with the condition that it is capitalized (Fasko, 2001, p.326). In our opinion, the capitalization of creative potential in universities involves reconsidering the strategy for the use of material, financial, and human resources of the university, and also the overall framework of the educational process: legal, technological, relational, institutional, etc.

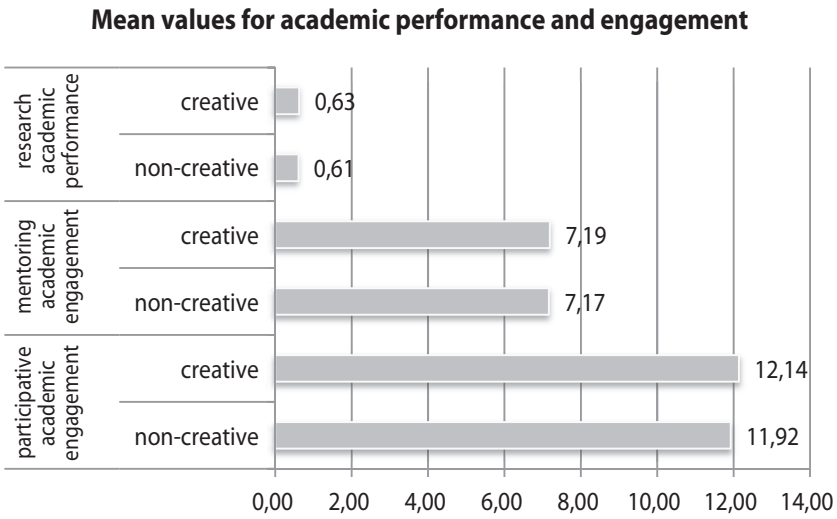
The development of creativity requires various material and financial resources because this is the only way in which students get opportunities for combining and re-combining their ideas and identifying alternative solutions. In fact, Florida, based his creative class theory (Florida et al., 2006, p.2), and Mansfield (1991) on the notion that investments in academic research provides significant returns for the economy and society.

The legal framework, and especially the education law, must adapt to this new reality in the sense of the elaboration of norms that regulate and encourage creativity as a goal of the educational process, supporting the reorganization of educational institutions towards more flexibility, and leaving open space for the manifestation of originality in the academic field, without the fear of losing the government's support in this area.

Finally, the teaching and assessment methods must be radically changed by using instruments that encourage construction, discovery, and innovation to facilitate understanding and creativity, to develop thinking and imagination, and to emphasize originality. Classical methods of teaching and assessment should be replaced to leave more space to investigative methods for guiding students towards invention and innovation.

In the context of the above statement, we investigated the relationship between students' assessment of the importance of originality and their school situation, examined through their academic engagement and their academic performance in the research field.

Figure 3. Values for academic performance and academic engagement



The analysis shows that the relationship between appreciation of originality/imagination and academic performance in the research field, respectively with academic engagement is not significant. Significance test results show the following: participative academic engagement t (354.8) =1.08, p = 0.277; mentoring academic engagement: t (342.0) = 0.14, p = 0.890; research academic performance: t (350.8) = 0.33, p = 0.741. The results are rather surprising and can be explained by the routine approach, academic conservatism, and lack of concern in higher education to develop creativity or to encourage the creative dimensions of teaching. The risk in this situation is to create a vicious circle in the way that creative potential is wasted, and consequently the current students will not promote creativity in their work after graduation.

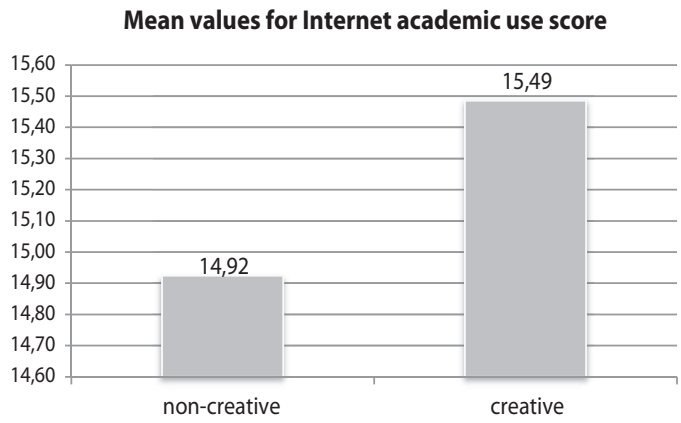
4.2. Profile of students with creative potential

a. Preparing for exams

Students who value creativity are expected to be more nonconforming regarding the ways of studying, preferring to discover materials themselves instead of using what is provided by the teachers. The more creative students therefore would be more likely to have original responses, different approaches from their less creative colleagues, and different solutions from those presented in the textbooks. But the data do not confirm this statement, so students who appreciate originality actually prefer, like their colleagues, to receive and use materials prepared by teachers for their exams. This result brings to mind the deficiencies in the assessment techniques; there are many teachers who prefer answers that are consistent with the information included in their textbooks, rather than original answers. In fact, a study by ARACIS[1] among Romanian students shows that "it found no student-centeredness in teaching activities; many courses are focused only on transmission of information; teachers do not

1 The Romanian Agency for Quality Assurance in Higher Education, member of the European Association for Ouality Assurance in Higher Education (www.aracis.ro)

Figure 4. Academic internet use



bother to update their courses, teaching methods, teaching strategy" (Curtu et al., 2010, p.7). And this proves to be harmful because "If the schools do not value or devalue creativity, they tend to have worse students" (Sternberg, 2006, p.89).

b. Academic use of the Internet

The relationship is significant ($t(358.2) = 2.06$, $p = 0.039$), indicating a higher score for the academic use of the Internet for those who value originality/creativity.

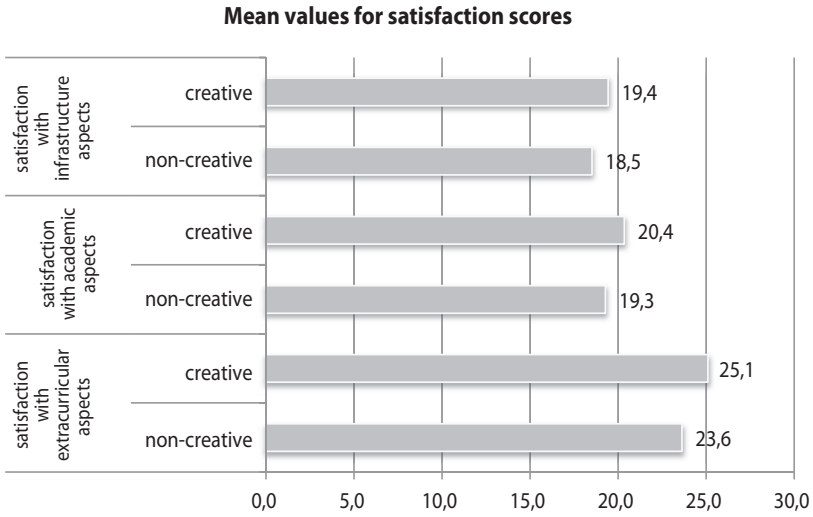
The data suggest that the use of scientific materials available on the Internet can contribute to the originality and creativity of students' own written materials, and for this reason, this method of study is more appreciated by students who want to be original and imaginative. What is interesting is the correspondence with the results obtained for the previous indicator. Although students who value creativity often use the Internet in their search for scientific information, they do not differ significantly from their peers in terms of seeking information to prepare for exams. As we suggested above, the results refer to gaps on how the assessment is organized and the importance given by teachers to originality when verifying the contents assimilated by students.

c. Satisfaction with academic life

Tests indicate significant relationships, with a higher average satisfaction scores (all three dimensions: academic activities, infrastructure and adaptability, extracurricular activities) for those who are oriented towards originality (academic satisfaction activity: $t(2251) = 4.54$, $p < 0.001$; satisfaction infrastructure: $t(1594) = 3.5$, $p = 0.002$; satisfaction extracurricular activity: $t(1017) = 2.89$, $p = 0.004$).

Again there are surprising results, presuming that, in general, creative people are rather dissatisfied challengers. Despite the many reforms occurring in the educational system, the curriculum philosophy continues to rely on the traditional type of education, oriented mainly towards knowledge acquisition and less on creativity. In these circumstances, creative students who come from secondary education (which although upgraded in recent years, is still far from supporting creativity), will be impressed by the flexibility, mobility, access to resources, university autonomy, teacher's personality, variety of educational experiences ,and the teaching-scientific base of the universities. In other words, even with a poor experience from secondary school and without knowing the situation in other geographical ar-

Figure 5. Satisfaction scores



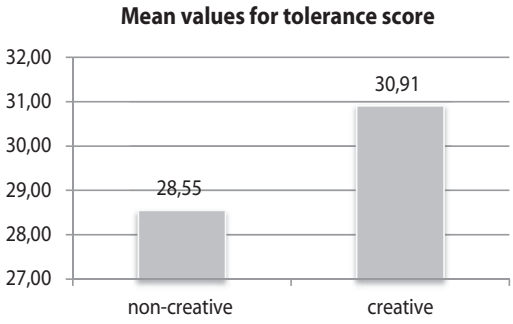
eas, they will be satisfied with what a university has to offer, even if this is quite modest. We believe that creativity must become not only a goal of the educational process, but also an element of continuity between education cycles.

d. Tolerance

The t-test revealed a significant difference, showing that the average value for tolerance obtained in the case of non-creative group is lower than the average value obtained for the creative students ($t(2330) = 5.35$, $p < 0.001$):

This is an expected result. Creativity is both a cause and an effect of tolerance, but at the same time creativity seems to be better developed in tolerant environments. Florida's studies conclude that a *creative class* is drawn to cities that favors tolerance and ethnic and cultural diversity, as in the area investigated by us: "University communities and college towns are places that are open to new ideas, cultivate freedom of expression, and are accepting of differences, eccentricity and diversity" (Florida et al., 2006, p.35).

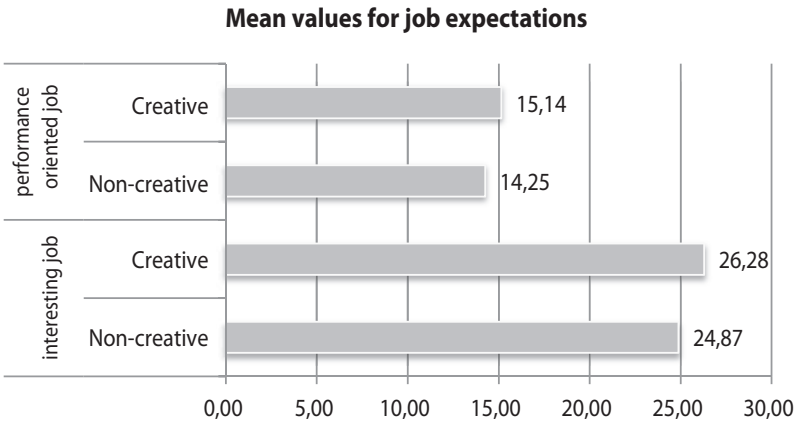
Figure 6. Values for tolerance



e. The importance attached to job characteristics that allow capitalizing the creative potential: to be interesting and challenging

Analyses indicate a significant relationship of the two scores on job type and the appreciation of originality by students (interesting job: $t(329) = 5.3$, $p < 0.001$; performance-oriented job: $t(326) = 4.3$, $p < 0.001$). It can be seen that the averages are higher for those who said originality is very important for them.

Figure 7. Values for job expectations



Despite the conformity asserted by the school, the more creative students show personality characteristics that fit creative work. They are more likely to want a job that is interesting, performance-oriented and challenging, with opportunities for improvement, mobility and diversity, and a feeling of success. „Universities play a huge role in generating human capital. They attract and produce two primary types of talent—students and faculty. Regions that can retain these locally produced goods gain competitive advantage" (Florida et al., 2006, p.19).

5. Conclusions and discussions

There is an important creative potential within the universities in the Romanian-Hungarian cross-border area, but it is not manifested on its usual coordinates. We can distinguish two areas for the actualization of the creative potential: the studying area (quartered in the present, yet with echoes from the past), and the area for the development of personality, behavior, and career (quartered in the present and oriented towards the future). While in the studying area the students' creativity is scarcely enhanced, as a consequence of its low value in the academic system; in the field of personality, behavior, and interest for career creativity; there is more opportunity for development.

The main conclusion derived from this study is that universities must focus more on creativity and offer more support to creative students, since „Even as developed societies improve the average level of education, they also need to be better at identifying and supporting the most gifted students. Innovation and entrepreneurship are heavily skewed toward this small group, so governments must ensure that gifted students maximize their potential. The developed economies need to act fast to remain an attractive destination for top students." (Stelter, 2013, p.18).

The interest in developing students' creativity must be promoted because of the reciprocal relationship between the *creative class* and the level of economic development of a community. Developed communities will attract creative people and the creative class will impel the community through those economic sectors in which creativity is needed, thus providing"the source of economic revitalization" (Florida, 2005). Studies show that students themselves want to acquire "well defined competences, adapted to the 21st century" (Curtu et al., 2010, p.9).

Our research findings support the need for stimulation of creativity in universities to ground policies for progressive higher education as well as policies for the development of creative economic environments, in order to create a virtuous circle of development to generate "an agglomeration economy where skilled people cluster in urban areas." (Berry, Glaesar, 2005).

Research Limitations

We internalized Sternberg's emphasis in which „Problems with the definition of and criteria for creativity caused research difficulties" and „Paper and pencil tests of creativity resolved some of these problems but led to criticisms that the phenomenon had been trivialized" (Sternberg, p.1998, p.12). Consequently, without pretending to investigate the entire problem of creativity, we aimed at verifying a particular aspect: the importance attributed to originality, imagination, and some of its correlates (preparation for study, academic and non-academic conformism/non-conformism, tolerance, and orientation towards interesting and challenging jobs).

On one hand, a limitation of our paper is that we interpreted the appreciation of originality and imagination as a proxy for original or creative personality, and on the other hand we blurred the idea that the answers to these questions may be desirable.

However our results can provide the foundation for broader studies on creativity. The delimitation of creative students requires complex research that enables capturing all of its dimensions. We recommend an interdisciplinary approach that supports an in-depth examination of the psycho-social aspects of the issues of creativity.

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