

Development of Entrepreneurial Innovative Competences through E-Learning: An Evidence of Serbia

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Abstract - In this research the authors tried to find the extent to which the education encourages creativity and whether online programs in entrepreneurship contribute to the business success in an entrepreneurial career. Accordingly, they conducted a survey amongst a group of students from the Belgrade Business School, Serbia. The sample consisted of 98 students randomly selected. The author firstly went through the theoretical background. Then, they proposed the research methodology and elaborated the methodological concerns. Furthermore, they discussed the key findings.

Index Terms: Creativity, Entrepreneurship, Cognitive abilities, Education, E-learning, Serbia

1. INTRODUCTION

Creativity has long been thought to be a characteristic of highly gifted and noble people; however, such an argument has been proved to be a wrong attitude. Although every individual has certain creative abilities, the extent to which these potentials will be developed largely depends on how much these abilities are encouraged and well treated. It is in this view that education plays a crucial role and significantly determines whether its outcome will be "passive imitators" or "active, creative contributors" (Radovic-Markovic, 2012).

In traditional learning systems, students are passive participants on all the educational levels. Their personal creativenesses are not encouraged, nor are they challenged to think critically and originally. On completing the process of formal education they are capable of, more or less, successfully reproducing the information they learned in the course of their schooling. However, they have not taught to implement the acquired knowledge in practice and to use this knowledge as basis for creating new ideas and for making business decisions autonomously. The knowledge students

acquired in the course of their education process has frequently turned out not to be really applicable or be rather inadequate to meet the modern requirements of the business environment. Therefore, the new economic environment should be accompanied by a change in educational environment.

2. THEORETICAL BACKGROUND

Researches show that there is a strong relation between educational level and entrepreneurship (Celik, 2006). Especially higher education is of key importance for entrepreneurs. Education, on one hand, encourages entrepreneurship and sets a substructure of entrepreneurship culture; on the other hand, it develops qualities and competencies of an entrepreneur when he sets up a company (Tusiad, 2002). Researches show that the young who have education for entrepreneurship are tent to be entrepreneurs (Ibicioglu et. al. 2009).

Education has also been noted as the means to infuse women more concretely into the entrepreneurial experience (e.g., Peterman & Kennedy, 2003; Wilson, Kickul, & Marlino, 2007). A recent study found that education plays different roles in countries' economic development at different stages (Van der Sluis et al. 2005). For example, in a developed country, the level of education was found to be one of significant variables affecting performance of female enterprises (Lerner et al. 1997). Considering the importance of education for entrepreneurs, it has recently become evident that the new Age is looking for new forms of education, such as creative education. According to a recent research (Liarokapis et. al. 2011), the introduction of virtual environments into higher education has the potential to bring a positive change in the learning experience.

Online learning environment is quite different from a traditional classroom. Firstly, it means that online courses require participants to take on new and different teaching as well as learning behaviors. In addition, an e-learning content differs from other educational materials, i.e. it can be disassembled as individual learning objects, tagged, and stored for reuse in a variety

Manuscript received on May 21, 2014.

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of different learning contexts (Harris, 2005). "E-learning context is very important. It is common to find educators who perceive e-learning as internet-only education that encourages a static and content-focused series of text pages on screen. Others envisage the shallow and random online messages that are typical of a social real-time chat session, and wonder how that type of communication could add any value to academic discourse. Some may have experienced e-learning done poorly, and extrapolate their experience into a negative impression of all e-learning." (Demiray, 2010) In the educational field intelligent agents are going to help students to improve their skills, serving as tutors.

This role of agents is not new, but it has not been widely used because of many factors one of which is that computational processing and interfaces have not been developed to accomplish a good communication between people and agents. Also, the integration of cognitive theories and computational theories did not permit the growth development (Sánchez-Guzmán et al. 2009).

"Learning by doing" is a non-traditional approach in which students are actively engaged in experiences that reinforce lessons and teach skills that have a lasting impact and, thus, help them become better learners" (Dialogue Magazine 2011). In this context, multiple perspectives take the educational experience beyond the classroom to cultivate real-world applications and to elaborate the matter in question. "Service learning, community-based learning, community action research, internships, study abroad, and similar experiences all provide opportunities for authentic learning that engage students in using their critical skills to understand and to better the world" (Association of American Colleges & Universities 2006).

For instance, acquiring entrepreneurial knowledge not only helps students identify entrepreneurship activities, but also stimulates them to run their own businesses and to be more adaptable to the fast changing entrepreneurial environment. According to Ashmore (1991) students start to understand that, although a business may be successful today by performing a given set of tasks, tomorrow a quite different set of tasks or skills may be required.

As Radović Marković and Bodroski Spariosu (2010) mention in their study, Serbia does not have extensive experience deploying online studies and virtual faculties. Forming an international learning network may enhance e-learning opportunities in Serbia as well as in countries that are developing or in transition

(Radović Marković, 2007) Because the functionality of the technologies and the benefits of virtual learning to learners and professors have been misunderstood, the entrepreneurial process, although improved in Serbia, has been impacted due to the lack of awareness (Radović Marković, 2007a).

An aggravating factor for faster development of Internet studies lies in the fact that internet education in Serbia has a low level of interest among students. Furthermore, most of the students cannot imagine "classroom without walls", or quite a different way of teaching (Radović Marković, 2012). If Serbians or citizens of other nations become more familiar with the techniques, potential learners as well as educators may be able to effectively discern the pros and cons of how e-learning would enhance and improve education (Radović Marković and Bodroski Spariosu, 2010). Hopefully, recently a number of studies have been done in Serbia in order to investigate different aspects of e-learning, especially in the field of business and entrepreneurship (e.g. see Radovic Markovic, 2007; Radovic Markovic et al., 2009; Radović Marković and Bodroski Spariosu, 2010).

Building a more inclusive distance learning environment in Serbia involves making technological choices built on flexibility and on ability to respond quickly to changes in constantly evolving technology and informational resources. Collaboration, involving teachers, mentors, and instructional designers who truly represent hard to reach learners, willingness to invest monies in developing a cyber-infrastructure that reaches all learners regardless of where they live, will all be crucial (Radović-Marković, M.2009a).

3. METHODOLOGY

The questionnaire is designed to investigate the concepts of "e-learning"/"distance learning" and "entrepreneurship", from the stand point of view of the students in this field. This Questionnaire is applied to the Belgrade Business School, Serbia. The sample consists of 198 people randomly selected.

4. KEY FINDINGS

The authors started this research with a question „Do you intend to run your private business as soon as you graduate?" Very interesting is the opinion of the respondents. Almost 90 % respondents are really ready to launch their own businesses as soon as they graduate. The explanation lies in the fact that the

respondents attend business studies. Certainly, the results would be different if the respondents were students from a technical university or college.

For students the key importance is „to earn more if they work for themselves” (45%). The most of the respondents (50%) answered “No” and 42 respondents (42 %) answered „Yes” to the question “Do you have any role model among successful entrepreneurs?” Namely, the young people in Serbia do not have role models among successful entrepreneurs because of the high level of corruption that has generated successful unethical businesses. Half of the respondents (50%) answered “Yes” to the question. As many as 90% of them believe that the distance learning would be a good solution for future young entrepreneurs. Women and men equally mostly believed that distance learning would be a good solution for future young entrepreneurs.

A large number of respondents gave a positive answer to the question “Would you like to enroll in any entrepreneurship course online”. The explanation can be found in the fact that, first of all, the students like to see how e-learning works in practice because it is still not too much applied in Serbia. It should also be noted that the top reason for respondents from Serbia in selecting some e-learning program is „flexibility in studying”.

As the question we asked “What do you think is crucial to be successful in the entrepreneurial career?” The second option “Having good business contacts” was marked by 70% of respondents.

Finally we discussed a correlation between entrepreneurial intention and entrepreneurship e-learning program selection for business success. As it is illustrated in the following tables and figures, intention has a positive meaningful impact on success. As F value is greater in the linear model, this model best fits in our case (Radovic Markovic, at-al, 2012 b).

Table 1. Curve estimation for Intention-Success in Serbia

Model Description		
Model Name		Intention-Success in Serbia
Dependent Variable	1	DSERBIASUCCESS
Independent Variable		DSERBIAINTENTION
Equation	1	Linear
	2	Logarithmic
	3	Quadratic
Constant		Included
Variable Whose Values Label		Unspecified
Observations in Plots		
Tolerance for Entering Terms in Equations		.0001

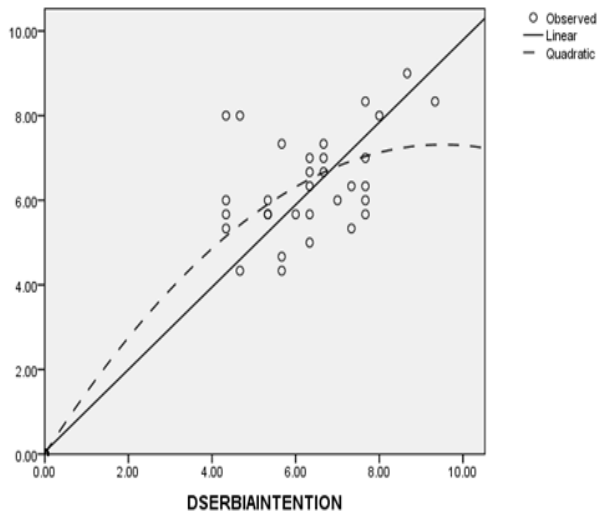
Source: (Radovic-Markovic, et al, 2012 b).

Table 2 Model Summary and Parameter Estimates for Intention-Success in Serbia

Dependent Variable: DSERBIASUCCESS

Equation	Model Summary					Parameter Estimates		
	R Square	F	df1	df2	Sig.	Constant	b1	b2
Linear	.945	2148.687	1	124	.000	.053	.973	
Logarithmic ^a000	.000	
Quadratic	.959	1445.248	2	123	.000	.010	1.534	-.081

DSERBIASUCCESS



Source: (Radovic Markovic, et al, 2012 b).

The findings on students' perception regarding the most appropriate direction for the educational strategies to be developed in order to reach the above mentioned goal, i.e. to encourage the creativity and entrepreneurial abilities of students show that the new educational strategies should encourage creative abilities and original thinking, individuality and freedom of learning. It is showed by the regression

$y = 2,4167x^3 - 10,5x^2 + 10,083x + 5$ (figure 2).

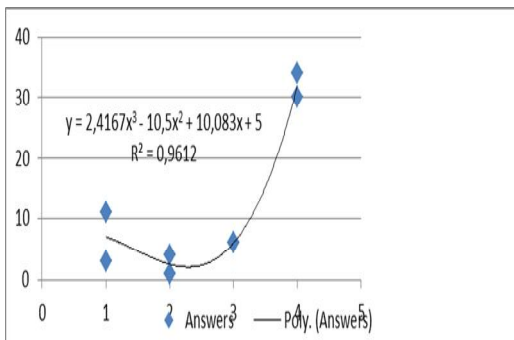


Figure 2 In what direction the educational strategies should be developed?

Source: Radovic Markovic, (2012 d)

Our research shows that education based on freedom of learning and teaching helps to foster creativity. Accordingly, the existing education system should be redefined as well as educational programs for entrepreneurship (Radovic Markovic 2012).

5. CONCLUSION

New learning strategies and models will play essential role in the future and encourage many of those who did not have enough ideas, courage, or certain skills to follow the entrepreneurship path. In line with this, a creative education and training should help people to raise their creativity, logical thinking, and entrepreneurial activity. (Radovic Markovic 2012a). Besides, this approach best reflects the autonomy of an individual. In addition, in this way many people will acquire "business freedom" and personal satisfaction through the realization of their individual potentials developed through all the phases of their education. Namely, fostering creativity in an individual also creates a clear vision of his/her future business he/she is expected to enter with less risk taking, which in turn should further result into a longer life cycle of a newly-established firm.

Furthermore, we should not forget the role of new technologies. The new technologies allow exploration of new areas of learning and thinking. They could support creative learning and innovative teaching and foster individual potential. For these reasons, Serbia should use all possibilities that new technologies offer in education. First of all, it is necessary more to promote e-learning among students and teachers in Serbia.

Finally, we can conclude that education should create new models of learning geared to the students' needs and new knowledge that will be synergic with the demand on the local, regional, and global labor markets. More than ever before we need knowledge that can be applicable to the 21st century economy - the knowledge-based economy.

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