

Vocational education and training with e-learning tools as a response to the unemployment

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Abstract: - Use of e-learning and online education today is widely applicable in many fields such as higher education, the social structures and non-profit structures, associations and local communities, education of workers in banks. The aim of this work is to study a first approximation how utility and especially how workable is to achieve active involvement of online vocational training in Greece focusing on public system of OAED. The economic downturn has exacerbated the chronic structural labour market problems, unemployment in Greece recorded the highest growth rate in the EU increased by 209% compared to 2008, with economic costs to the country. The last decade the percentage of participation in lifelong learning processes ranging from 1.8% (2004) to 3.3% (2009). During the same period, the European average is between 8.4% (2003) and 10.4% (2013). An increase of holding only 58% (600,000 persons) of unemployed would create a market of 600.000.000 € with resulting increase of approximately 3% of GDP.

Key-Words: - vocational education, vocational training, e-learning

1 Introduction

In Europe, 74 percent of education providers were confident that their graduates were well prepared for work, but only 38 percent of youth and 35 percent of employers agree on that. This shows clearly that the different players do not "communicate" each other and don't understand each other's expectations and needs. Only to a few European countries (mainly in Germany and in the United Kingdom) the majority of employers report that they communicate with education providers at

least several times a year [1]. As a result the training and education provided by VET providers and universities is not oriented to labor market needs.

Students state that the vocational education is probably more useful in finding work, although in most countries it is not socially valuable. In addition to that according to more than half of young people who followed an academic course [1] they believe that is more useful. Interest in the subject and future employment opportunities are generally thought to be more important factors in choosing a vocational pathway than any other [3] [4]. Although students

do not have sufficient information at high school on the different types of educational opportunities, the ones that select vocational training are highly interesting for their subject [2].

In addition to that the findings revealed that collaborative practices, i.e., group work, team effort, in time instructor's feedback and consolidated support material enhances learning experience of student and contributes positively to the learning outcome [5]. In addition to that according to [6] guidance helps people accomplish their goals whether they are learners planning their education, training and careers, or adults planning their careers or further training, or preparing to become more employable.

The use of e-learning and online education learning is nowadays widely applied into various sectors like higher education institutions (HEIs) [7], civil society or not-for profit sector. [8], in unions of rural sector [9], in training banking personnel [10], to support both traditional and emerging engineering education [11], teaching computer science courses have implemented the educational games concept in the learning game for C# programming language [12]. Internet Accessible Remote Laboratories [13]

The e-learning market covers the academic, corporate and consumer fields, and has a variety of segments, including content providers, technology vendors, and service providers. The US Department of Labour estimates that corporate e-learning revenues are expected to increase from US\$550 million to US\$11.4 billion. A venture capital provider estimated the US market capitalization of the listed corporations involved in e-learning as US\$50 billion, a figure which should reach \$US200 billion in three years.

Corporate and campus agendas have started to recognize e-learning as having the power to really transform the performance, knowledge and skills landscape, Education and training is poised to become one of the largest sectors in the world economy. Merrill Lynch estimates global expenditures of education and training at over US\$2 trillion. About one third of this spending is in North America, half in Europe and the other developed market economies, and 15 percent in the developing world [14].

Hopefully it's a sign of improving times for the economy, but two recent reports found that spending is on the increase for employee learning and development. The American Society for Training and Development [15] says that US organizations

spent more than \$170 billion on training in 2010, which represents a spend rate in excess of \$1,200 per employee. Another report, Bersin & Associates' Corporate Learning Factbook 2012 [16], puts the figure at a more conservative \$800 per employee in 2011.

But today, when e-learning is taken seriously and as you see an increasing number considering the use of eLearning in a big way and those who are already using the online medium of training are increasing their eLearning budgets According to Global Industry Analysts, corporate training is a \$200 billion industry and the share of eLearning is \$56.2 billion and the eLearning market is poised to grow to \$107 billion, by 2015 [17].

The worldwide market for Self-Paced e-Learning reached \$35.6 billion in 2011. The five-year compound annual growth rate is estimated at around 7.6% so revenues should reach some \$51.5 billion by 2016. According to Product & Users, the LMS market is expected to experience a growth of 23.17% between 2017 and 2018. According to Ambient Insight, the packaged content market will reach \$38.3 billion by 2016 [18]. According to sources, large and affirmed Companies (such as the Global 5000) are the primary buyers of E-Learning products and services. They account for more than 30% of the E-Learning Market clientele.

Online learning in the 21st century has surpassed the early forms of distance education that were based on correspondence type courses, video conferencing and educational television programs [19], [20]. Instead technology used in higher education today consists of internet courses, such as Massive Online Open Courses (MOOCs) internet courses that provide large-scale global access to higher education courses, web-based Applications (Apps), multimedia programs and the more established virtual learning environments such as Moodle or Blackboard. Indeed, in 2004, 9% of USA HEIs were reported to offer some component of online learning in all their undergraduate courses [21]. The continued global expansion in the use of online learning has encouraged a wide variety of technological innovation in clinical skills nurse education, such as simulation, digital teaching aids, online teaching and virtual learning environments [22].

The availability of electronic and Web-enabling technologies has tremendous influence on the success of e-learning [23]. Educational communities today are rapidly increasing their interest in Web 2.0

and e-learning advancements for the enhancement of teaching practices. *Web 2.0-Based E-Learning: Applying Social Informatics for Tertiary Teaching* provides a useful and valuable reference to the latest advances in the area of educational technology and e-learning. This innovative book offers an excellent resource for any practitioner, researcher, or academician with an interest in the use of the Web for providing meaningful learning experiences [24].

In order to achieve the active participation of vocational school students and unemployed people we propose in this paper, the use of online education and we do some technological and economic and assumption's due to the facts that we present before and to the facts that we will present for the specific example of Greece.

2 Materials and methods

The financial recession has sharpened the lasting structural problems of the labor market. As the data of the Eurostat dictate, the unemployment in Greece indicates the highest climax degree in the EU and has marked an increase of 209% in contrast with the 2008. Simultaneously, there is an alarming increase of the long-term unemployed. For these people, the possibility to their incorporation in the labor market is reducing as long as the stamina of their unemployment is getting prolonged. The percentage of unemployment in Greece [25] mounted to 27% at the third trimester of 2013 against 24,8% at the third trimester of 2012 (Fig. 1) and 7,6% at 2008, however the actual unemployment appears to be higher.



Fig. 1 Percentage of unemployment in Greece and the EU (EE-28) per trimester (2011-2013), source ELSTAT

At the third trimester of 2013, the number of unemployed people mounted to 1.345.387, the financially active population came up to 4.422.800 people since the partially employed mounted to 3.635.905 people. The employment remains less 2.8% relatively to the third trimester of 2012. The national objective with regard to the percentage of the participation of the population to the employment is 70% while the average European is 75%, an objective that it is hard to accomplish considering the serious signs of the structural crisis (Fig. 2).

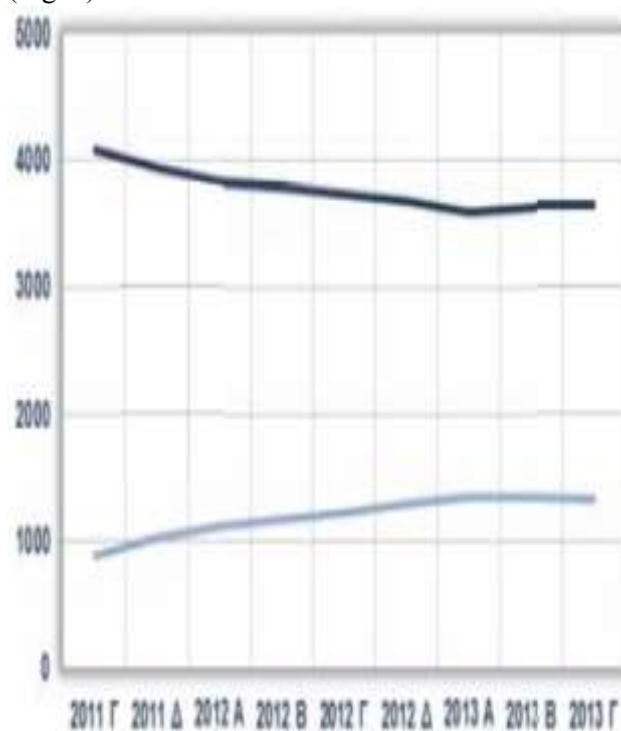


Fig. 2 Number of employed (dark line) and unemployed (grey line) per trimester (2011 - 2013) in thousands (source ELSTAT 2013)

The percentage especially of the young people who are off education, training and labor in Greece has increased constantly from 2008 to 2012 and stands solid amongst the highest in the EE [25] (Fig. 3) with financial cost for the country by the no participation of the young people alone to the labor market coming up to 3,3% of the gross national product while at the same time the average European is only 1,21%.

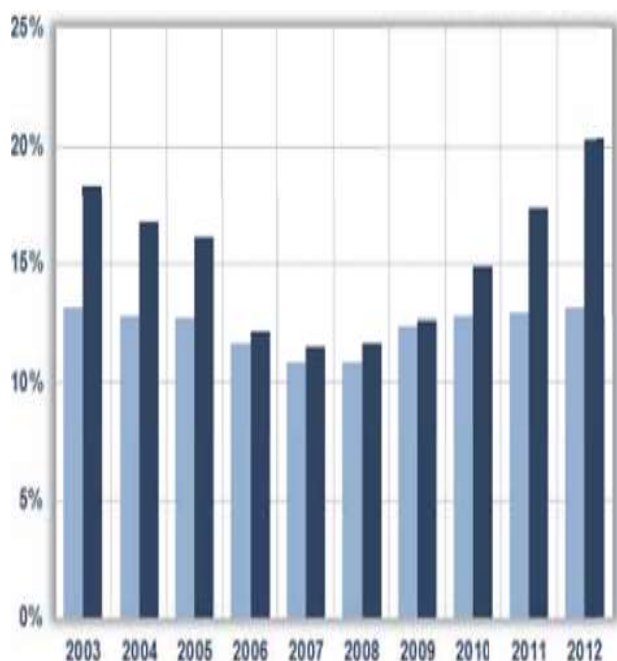


Fig. 3 Young people 15 - 24 years old off labor, education or training (2003-2012). EE-28 blue light, Greece blue dark (source Eurostat 2013)

Greeks up to date have rather bad situation against “long life learning”. They believe that is embarrassing and even more tiresome to continuously learning. Greece continues to hold one of the last positions in central and in south Europe regarding the participation of the adults to procedures of long life learning. The statistical studies of the National Institute of Labor [27] and human manpower repeat the finding of the Eurostat: The last decade the percentages of participation in procedures of long life learning range from 1,8% (in 2004) to 3,3% (in 2009). At the same period the European average lies between 8,4% (in 2003) and 10,4% (in 2013). It is reminded that the data of the Eurostat refer to the participation of adults aged 25 to 64 years old that participating to procedures of typical and no typical education-training. Namely, they include the attention to university courses and the participation to programs and seminars of training. The high factor of unemployment tends to change this.

In a country like Greece, where almost in every big city is located a university, with hundreds of institutes and centers of vocational training, private colleges, tutoring centers and with the Open University available to all, it is highly impressive the great scale of underestimation of the “long life learning”, much more when 58% of the registered unemployed people (according to the last evidence by the Manpower Employment Organization

(OAED) for the May 2014) they are long-term unemployed.

Countries with high index of unemployment, like Spain, Italy, Ireland and Portugal, maintained the highest percentages of the population participation especially at the times of crisis. Indeed in Portugal, the percentages not only they double but also there is effect to unemployed and employed people as well.

How can be explained the underestimation of the specific procedure in Greece? The report from the National Hellenic Research Foundation limits the explanation of this appearance to the fact of focusing of training actions towards mainly the unemployed persons. As this Foundation notes, in Greece on the contrary to the body of the EU, from 2003 to 2011, the unemployed are the cluster of the population that notching the greater participation to the long life learning activities. Even the resources of the Account for the Occupation and the vocational training (LAEK), resources that they comprise employs and employers checkoffs, address mainly towards programs for unemployed and very little for the already working enterprise personnel. After 2013 faintly begins to increase the participation of the labors. Yet again, the ages are limited to young people of 25 to 34. On the contrary to countries where the procedure is truly developed all the ages will find free space for participation in training programs, with prominent evidence this of Denmark in which one out of four or more (22,9%) from the participants to the long life learning procedure are people aged 55 to 64.

3 Problem Solution

The proposal that is presented in this study suggests that the ICT and training should be developed as much possible within a frame of online electronic training platforms. The international practices prove that there are no obstacles to their implementation since there are a plethora of applications [7][8][9][10][11][12]. At least, a part of them may be implemented with such technics and lessen the face to face training.

In this way we consider that the number of people willing to participate in training programs will be increased considering the geomorphology of the country, the psychological difficulty of the unemployed to direct communication let alone their financial objection. Likewise, provided that these training actions will be combined with the market needs, more people may be attracted to.

A pledge for this is the great amount of participants at the last training program conducted by OAED concerning ICT skills using online technics.

Considering that in the USA the profit of the enterprises put in e-learning expected to mount at 550 million dollars while for the year 2010 were spent more than 170 billion dollars, about \$1,200 per labor. We may provide the quota of wealth that could be generated although 58% (about 600.000 unemployed) of the registered unemployed (according to the last data by the OAED for the May of 2014) that are long-term unemployed, participated in a procedure like this since the access would be easier. With an average cost of 1.000€ we could be rest assured for a market of 600.000.000 € without counting the benefit of the new equipment by these programs at the end the potential output of the country leading to real growth and in real numbers to gaining of about 3% of the gross national product [25].

The life-long learning procedure should be targeting even to employed people in order to strengthen their position and to increase the quality of the offered services. The educational methods should be based on adult learning theories such as constructivism and constructionism. As a result the educational methods should be an active process of knowledge construction based on experiences gained from the real world and linked to existing personal, unique pre-knowledge, learners are engaged in authentic learning tasks that are personally meaningful to them. Furthermore principles of adult learning suggest that adult learners are more engaged when tasks are autonomous and self-directed, based on life and work experience, goal-oriented, relevancy-oriented, and practical. Adult learners need to know why they need to learn something before undertaking to learn it, adults prefer responsibility for their decisions and wish to be viewed as capable of self-direction.

4 Conclusion

In this work we presented the new approach to use e-learning programs in vocational training in OAED organization. The method seeks to harmonize formal market needs in an environment of extreme crisis for the country and also serve to reduce unemployment and GDP growth. Another innovation of this work is that this methodology is independent of the work area, the level of education and the public or private nature.

The e-learning is now quite mature and technical education to serve every need and a real opportunity to improve the education of many factors and not

only. Possible future work could focus on developing the business model of such an application in Greece at a broader level, analysing all the determining factors.

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