Increasing the Penetration of the Unemployed into the Labour Market with e-Learning Based Practice Firms in Slovenia and Croatia

TANJA ARH\textsuperscript{1}, MARIJA MOJCA PETERNEL\textsuperscript{2}, MATIJA PIPAN\textsuperscript{1}, BORKA JERMAN BLAŽIČ\textsuperscript{1}
\textsuperscript{1} Laboratory for Open Systems and Networks
Jožef Stefan Institute
Jamova cesta 39, 1000 Ljubljana
SLOVENIA
tanja@e5.ijs.si; matic@e5.ijs.si
\textsuperscript{2} Šentvid High School
Prušnikova ulica 98, 1000 Ljubljana
SLOVENIA
mojca.peternel@guest.arnes.si

Abstract: - In accordance with the document Europe 2020, Europe wants to become smarter, more sustainable and inclusive. It stimulates innovations adapted to the individual learner’s, which consequently supports the process of self-employment. Since both Slovenia’s and Croatia’s unemployment rates are above the EU average, all forms of alternative employment should be promoted, and one of the main outstanding possibilities is represented by a wide spectrum of self-employment possibilities. As the concrete response to the deficiencies identified above, the general aim of the SELPRAF project is to encourage people’s interest for entrepreneurship by an innovative SELPRAF Training Programme for the acquisition of the four key competences. Besides, the SELPRAF will promote individual educational pathways beyond VET and improve permeability in the VET.

Key-Words: e-learning, e-learning environment, unemployed, Vocational education and training (VET), competences

1 Introduction

The project titled »Self-employment with e-Learning based Practice Firms« or in short »SELPRAF« (www.selpraf.eu) was launched within the call for proposals of the Leonardo da Vinci – Transfer of Innovation – Lifelong Learning Programme in the autumn of 2011.

The findings of national research studies and Employment Service of Slovenia [1,2] have pointed out that unemployment rate is one of the most important indicators that describe condition of economics. Nowadays, unemployment rates are high. The figures of September 2010 for the EU 27 Member States indicated a general unemployment rate of 9.6%, in Slovenia 11.1% and in Croatia 18.8% [1]. This rate greatly increased in the beginning of 2011. At the end of December 2010 the Employment Service Ljubljana registered 26,700 unemployed, representing 24.3% of unemployed in Slovenia. Compared with December 2009, the number of unemployed in Ljubljana increased by 26.3%, while the unemployment rate in Slovenia increased by 13.8%.

Within lifelong learning strategy implementation a set of documents such as The Bruges Communiqué on enhanced European Cooperation in VET [3], A New Impetus for European cooperation in VET [4] to support the Europe 2020 strategy and Key competences for lifelong learning [5] are being launched by the European Commission. All the documents have been prepared with the intention to additionally support and enhance Europe to become smarter, more sustainable and inclusive.

In accordance with the document Europe 2020 (http://ec.europa.eu/europe2020), we need more flexible, high quality training systems responding systematically to the needs of today and tomorrow. Among the main ‘leading initiatives’ laid down in the Europe 2020 document is also the Agenda for New Skills and Jobs [6], which includes an enhanced promotion of innovations adopted to the learning potentials of individuals, which consequently supports the process of self-employment. Since both Slovenia’s and Croatia’s unemployment rates are above the EU average, all forms of alternative employment should be systematically promoted, and one of the main opportunities is represented by a wide spectrum of self-employment possibilities. Analyses’ results have shown that due to their shortcomings in terms
of education, lack of competences and consequently fear and uncertainty, the unemployed rarely opt for self-employment.

The main stakeholders on the labour market are employers, active population, the Employment Services and also educational institutions. The lack of systematic exchange of information among these institutions result in the insufficient support to the unemployed, who need complex information but yet shaped to individual's particular interests, needs and competences acquired so far. Although the self-employment has been an alternative option for quite a long time, the unemployed, due to the lack of self-confidence, competence and consequently the fear of un-success only rarely decide for this option.

As the concrete response to the deficiencies identified above, the general aim of the SELPRAF project is – in the framework of a comprehensive approach to improve the penetration of the unemployed into the labour market – to develop people's enthusiasm for entrepreneurship using an efficient and innovative model for the transfer of knowledge and experience and to develop and promote the SELPRAF Training Programme for the acquisition of the four key competences: communication in the mother tongue, communication in foreign languages, digital competence, and sense of initiative and entrepreneurship for the main target group (unemployed for at least 4th level of education) to promote individual educational pathways beyond VET, to improve permeability in the educational system and to facilitate transition phases (from VET into the labour market or reintegration into labour market after unemployment).

The partnership structure is based on partners competences ensuring: (1) high technology e-learning infrastructure achievements (company B2, Jožef Stefan Institute, JSI), (2) didactical methods in the acquisition of competences (Šentvid High School), (3) experiences in practise firms (Secondary School of Economics), (4) the network of beneficiaries of innovation (ZRSZ, Srednja škola Mate Blažine), (5) pilot training and on-going valorisation (Secondary School of Economics, ZRSZ, JSI) and (6) dissemination (JSI). CPI will be – together with the ZRSZ responsible for the needs analysis in the field of the identifications of key competences. A qualified evaluation and validation of the project results will be done by University of Leicester.

The main impact of the project is to improve the penetration of the unemployed into the labour market, to contribute to the attractiveness of VET, to improve the capacity of VET to respond to the changing requirements of the labour market and to encourage the provision of appropriate funding - e.g. for teaching materials, support tools and the establishment of practise firms by learners.

2 Competencies importance in the labour market

Because of unfavorable demographic trends – declining birth rates, aging population and high emigration – in Slovenia is decreasing both overall and in the working-age population. Shortage of skilled labour is becoming one of Slovenia's major problems hindering economic development. The European Commission's report to Member States [7] predicted that the birth rate in all countries will remain less than is required to maintain the demographic balance. Projected that between 2010 and 2050 aged population will decline, and the older population will increase dramatically. The aim is to address the fundamental economic problems – weak economic growth, high unemployment and social exclusion. The existence of a united EU labour market area will inevitably cause the country is drawing up the qualifications for the workforce. For this reason, an increasing emphasis on vocational training (VET), which is perceived as a major progress, employment and economic growth factor, an ever-growing state efforts to help the unemployed to maximize trade opportunities and deal with all the skill and integration into the labour market problems.

Integration of unemployed persons in the labour market is a complex and controversial issue which affects many factors: the state level of economic development, labour supply and demand ratio, the employers' approach to unemployed people, the unemployed people job-motivation, ability to learn, self-confidence. To successfully integrate the unemployed into the labour market, it is important for this group of unemployed people to give enough attention to the assessment of their circumstances and opportunities. Particular attention is paid to such position in the labour market determining factors as education and vocational training relevant to the modern labour market, key competences, knowledge and abilities, along with Slovenian language skills.

The knowledge, skills and aptitudes of the European workforce are a major factor in the EU’s innovation, productivity and competitiveness [5].

It is against this back-drop that the Council and the European Parliament adopted, at the end of 2006, a European Framework for Key Competences
for Lifelong Learning [5]. The Framework identifies and defines, for the first time at the European level, the key competences that citizens require for their personal fulfilment, social inclusion, active citizenship and employability in our knowledge-based society.

Competences are defined as a combination of knowledge, skills and attitudes appropriate to the context. Key competences are those which all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment. The Reference Framework sets out eight key competences: (1) Communication in the mother tongue; (2) Communication in foreign languages; (3) Mathematical competence and basic competences in science and technology; (4) Digital competence; (5) Learning to learn; (6) Social and civic competences; (7) Sense of initiative and entrepreneurship; (8) Cultural awareness and expression [5].

Below we present four competencies which will be part of our SELPRAF Training Programme in more detail.

2.1 Communication in the mother tongue

Communication in the mother tongue is the ability to express and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking, reading and writing), and to interact linguistically in an appropriate and creative way in a full range of societal and cultural contexts; in education and training, work, home and leisure [5].

2.2 Communication in foreign languages

Communication in foreign languages broadly shares the main skill dimensions of communication in the mother tongue: it is based on the ability to understand, express and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking, reading and writing) in an appropriate range of societal and cultural contexts (in education and training, work, home and leisure) according to one’s wants or needs. Communication in foreign languages also calls for skills such as mediation and intercultural understanding. An individual’s level of proficiency will vary between the four dimensions (listening, speaking, reading and writing) and between the different languages, and according to that individual’s social and cultural background, environment, needs and/or interests [5].

In German language four skills will be developed: writing, speaking (spoken interaction and production), listening and reading. According to the Common European Framework of Reference for Languages: Learning, Teaching, Assessment – CEFR, in the project, the first tasks of the four skills of German language will be developed: speaking, listening, reading and communication (spoken and written). Topics and vocabulary will refer to all fields of life.

2.3 Digital competence

Digital competence involves the confident and critical use of Information Society Technology (IST) for work, leisure and communication. It is underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce and exchange information, and to communicate and participate in networks via the Internet [5].

Digital competence will be covered both directly in the learning contents (e.g. safe and critical use of ICT for work and communication purposes, use of computers for search, evaluation, saving, production, presentation and exchange of information, as well as communication and cooperation within on-line groups, etc.), and indirectly, through the training in an e-learning environment.

2.4 Sense of initiative and entrepreneurship

Sense of initiative and entrepreneurship will be the prevailing competence. It refers to an individual’s ability to turn ideas into action [5]. It includes creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives. In the project the knowledge includes the ability to identify available opportunities for personal, professional and/or business activities, including the ‘big picture’ issues that provide the context in which people live and work, such as a broad understanding of the workings of the economy, and the opportunities and challenges facing an employer or organization.

3 Practice firm – an effective learning environment

A practice firm (also known as a practice enterprise, training firm, or virtual business) offers an effective learning environment, which simulates all the administrative functions of a real business. The practice firm resembles an actual company in its form, organization and function. There are currently over 5800 practice firms worldwide. Participants of a practice firm work in real departments of a simulated business environment. Catalogues of products and services are marketed to
other practice firms, which buy and sell from each other and earn virtual profits. Everything is identical to a real business, except there is no actual product or exchange of real funds. Practice firms help unemployed individuals gain meaningful employment by providing them the opportunity to apply and update their skills and knowledge.

In Slovenia a practice firms are already running in Vocational Education Schools. Implementation of practice firms for unemployed in Slovenia and Croatia therefore means the transfer of practice firms in two perspectives: firstly, practice firms already running in Vocational Education Schools in Slovenia will be adopted and implemented for unemployed in Slovenia and secondly, the implementation of practice firms will be implemented also in Croatia (geographical perspective). This process includes identification and needs analysis of unemployed and selection of innovative e-learning content, that answering these needs. In the first stage, the SELPRAF project will develop innovative e-learning content regarding needs and social-cultural circumstances of target groups, and then gradually integrated them on national, regional or sectoral level of VET.

4 Development of SELPRAF Training programme

SELPRAF Training Programme is the optimum instrument to enable the implementation of e-learning for the acquisition of four, mutually interlinked key-competences: 1) communication in the mother tongue, 2) communication in foreign languages, 3) digital competence, and 4) sense of initiative and entrepreneurship and thus enable the specific target group of unemployed (with minimum 4th level of education) to take part in further training within practice firms.

The SELPRAF Training Programme will be divided in two parts. First part of the SELPRAF Training Programme will be delivered in the form of blended learning aimed at the acquisition of knowledge and competences required to qualify to join a practice firm with the support of a modern e-learning management system eCampus®, which meets the requirements related to employee education independent in time and space. Data needed for the e-training evaluation will be acquired through the questionnaires and results of interim tests and the final examination. Second part of the training will be conducted F2F in practice firms.

The training will be performed in Ljubljana, Celje and Labin.

E-learning environment provides the environment which enable social learning experience. For the learning environment we will use an Learning Management System eCampus® which facilitates the production of multimedia and interactive e-learning content, use of Web 2.0 tools, participants' management and an integrated e-learning, e-testing and communication support. Figure 1 presents an example of an e-course in eCampus® learning environment.

![Fig. 1: An example of an e-course in eCampus® learning environment](image_url)

eCampus® is developed and designed to offer students excellent learning experience, to enable authors using advanced features to create multimedia and interactive content, to support mentor activities with powerful built-in virtual classroom and to offer administrators segmented controlling tools to manage e-learning content, users, user groups and other entities. During the project eCampus® will be used to create e-learning content and to support blended learning type of training, both in Slovene and Croatian language.

One of the main project objectives is to develop learning content. On the basis of the report from Needs Analysis Report for Slovenia and Croatia we will choose relevant topics in the field of four selected competences and form modules, that will be rearranged into modern interactive-multimedia e-contents using state-of-the-art ICT. E-contents will meet the requirements of the SCORM (Shareable Content Object Reference Model) standards, guaranteeing their interoperability and enabling their further application in all e-learning management systems, which support this standard, both for open-code and commercial versions. E-materials will cover a 60-hour course. For the development of e-learning content, we will use the internal project methodology for the production of
e-learning content, which represents the "know-how" acquired through an expert approach and abundant experience. We will use numerous computer tools, such as MS Office, Macromedia Studio, Macromedia Captivate, Corel Graphic Suite, Articulate Studio, Hot Potatoes, and similar.

The SELPRAF Training Programme will combine the most effective traditional teaching methods with new ICT. E-learning model will be based on blended learning methodology, which allows the building of the efficient combinations of traditional and new methods of learning and training. The major principles of e-learning model used in »SELPRAF« project are [8, 9]: (1) combination of face-to-face learning and e-learning (6 face-to-face sessions in a course); (2) combination self-learning and interactive learning (active role of unemployed); (3) course (60-hours) is built by module system and uniform structural model; (4) full learning and instructional support.

To organize the learning process, the e-learning environment will be developed. The model of e-learning environment is presented on Fig. 2. For the high effectiveness of educational process the e-learning environment is taking into account both pedagogical principles and ICT possibilities [13].

Fig. 2: The SELPRAF e-learning environment [11]

E-learning environment could change the process of learning from a passive to an active one, encouraging regular communication between learners and with tutors [10]. It takes the synchronous and asynchronous collaboration capabilities of the Internet and integrates them within tools that mirror the instructional process. To create an effective and appropriate online learning environment for our define target group, we consider a few practical and pedagogical issues, including the recognition of prior learning, self-assessment, diagnostic tests, the online roles of tutor and unemployed/student, the best type of support technology tools to use, and the process of collaboration. These practical and pedagogical aspects are presented in more detail below.

Reception. Unemployed/students have different backgrounds and different needs. At the beginning of the course unemployed needs to establish goals, become aware of their own needs and grasp the objectives of each course [11].

Roles. The tutor must accept the role of facilitator in the learning process. This change requires moving from the “chalk-and-talk” role to a “guide-on-the-side” role. It is also important that tutors realize that e-learning requires high motivation on the part of the unemployed/students [11].

Collaboration tools. Effective collaboration between the tutor and unemployed/students is crucial. Tutors must be familiar with the many Internet technologies that support effective communication and collaboration, including e-mail, group discussion lists, text-based chat facilities, and even videoconferencing [11].

Material distribution. Developed e-learning environment provides a platform for delivering not only the text materials, but also the multimedia requirements as well, including audio and video streams of tutors lectures [11].

Methodology. Flexible learning is not a question of telling unemployed to do whatever they want, whenever they want to, as some teachers fear. Flexible learning is about providing individual students with the kind of material, tutoring and guidance that suits those best [12].

Student assessment. Computer-based testing can provide instant feedback on student comprehension of course materials. But this type of managed testing can’t work unless tutors accept assignments and provide feedback to students electronically [11].

Specialized software. In some cases, course content might dictate that specialized tools be used to improve course comprehension and communication. For example, collaborative tools are now available that support shared workspaces along with application-sharing capabilities in the Internet [11].

5 Conclusion
Among five priority aims launched by »Europe 2020« strategy, employment and education are the two outstanding one. They have been recognized as the main field of action, demanding high level of cooperation between the responsibility of different sectors (economy, employment, education). The
implementation of the »Europe 2020« should activate above all, an efficient adoption of different, individual learning »pathways« to employment, concentrated on individual’s potentials and capacities and strengthening the role of ICT and e-learning.

The project offers concrete answers to the priorities mentioned above: the SELPRAF Training Programme of the group of unemployed by the assistance of the already experienced national network of practice firms and assist unemployed the procedures of self-employment, adjusting more easily to the labour market demands, to achieve independence and confidence and sensitiveness for lifelong learning. High mastering of key competences promote individual’s carrier pathways beyond VET, improve permeability in the educational system and facilitate transition phases in one’s career.

Practice firms help unemployed gain meaningful employment by providing them the opportunity to apply and update their skills and knowledge. The importance of SELPRAF transfer of innovation is not just in implementation of practice firm as a tool to enable the transition from school to work but at the same time also vice versa – to use the practice of labour market in upgrading the quality of work and the role of practice firms in VET system. The practice of the transfer “from school to work and vice versa” will simultaneously happen in all the participating countries and thus put together wider experiences from different environments which will contribute to quality of results.

The SELPRAF project offers direct individual – based tools to most vulnerable group of young unemployed in the concrete identified regions within EU countries and one candidate country and enables further wider implementation of the product either through the European Social Fund or LdV projects on national or international level.

References: