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**Author:** Piet Kommers, Eugenia Smyrnova-Trybulska, Nataliia Morze, Tatiana Noskova, Olga Yakovleva, Tatiana Pavlova i in.

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# **I. E-LEARNING AND INTERCULTURAL COMPETENCES DEVELOPMENT IN DIFFERENT COUNTRIES**

## **CONTRASTIVE ANALYSES AND EVALUATION OF THE ICT AND E-LEARNING AND INTERCULTURAL COMPETENCES IN AUSTRALIA, CZECH REPUBLIC, THE NETHERLANDS, POLAND, PORTUGAL, RUSSIA, SLOVAKIA, SPAIN AND UKRAINE WITHIN THE FRAMEWORK OF THE IRNET INTERNATIONAL RESEARCH NETWORK PROJECT**

**Piet Kommers<sup>1</sup>, Eugenia Smyrnova-Trybulska<sup>2</sup>,**

<sup>1</sup>University of Twente in Enschede, The Netherlands

P.A.M.Kommers@utwente.nl

<sup>2</sup>Institute of Science of Education, the Faculty of Ethnology and Sciences of Education, University of Silesia in Katowice, Poland, esmyrnova@us.edu.pl

**Natalia Morze,**

Borys Grinchenko Kiyv University, Kiev, Ukraine,

n.morze@kubg.edu.ua

**Tatiana Noskova, Olga Yakovleva, Tatiana Pavlova**

Herzen State Pedagogical University of Russia

info@fit-herzen.ru

**Martin Drlík<sup>3</sup>, Josef Malach<sup>4</sup>**

<sup>3</sup>Constantine the Philosopher University in Nitra, Slovakia

mdrlik@ukf.sk

<sup>4</sup>University of Ostrava, Czech Republic josef.malach@osu.cz

**Sixto Cubo Delgado<sup>5</sup>, Paulo Pinto<sup>6</sup>**

<sup>5</sup>University of Extremadura, Spain, <sup>6</sup>Lusiada Lisbon University, Portugal

**Tomayess Issa & Theodora Issa**

Curtin Business School, Curtin University

Tomayess.Issa@cbs.curtin.edu.au, Theodora.Issa@cbs.curtin.edu.au

**Abstract:** *This article, prepared by an international team of authors - researchers from different scientific areas, connected with ICT, e-learning, pedagogy, and other related disciplines, focuses on the objectives of the international project **IRNet**. In particular, the article describes research tools, methods and some procedure of the WP2: Analyses of legal, ethical, human, technical and social factors of ICT and e-learning development, and the state of intercultural competences in partner countries: Objectives, Tasks, and Deliverables as well as conceptions and schedule of an implementation of the WP3. The second part of the paper includes data from preliminary research. During the study and analysis of global (international) and local (national) documents as well as university documents Table 1,2,3,4 were prepared which set out a comparison of the legal factors of ICT and e-learning development in all partner countries, for example Poland, The Netherlands, Spain, Slovakia, Portugal, Czech Republic, Australia, Ukraine and Russia in the context of the IRNet project – **International Research Network**.*

**Keywords:** International Research Network IRNet, ICT, E-learning, Competences,

## INTRODUCTION

Nowadays, we can observe a rapid transition of the knowledge society to the "society of global competence", in which both the global economy and the education systems are undergoing changes. It is evident that without an active implementation of innovative forms and methods of education, and above all, distance learning at all levels of education these objectives cannot be successfully achieved. At the same time we should identify the existing problem - the fact that e-learning methodology is not yet fully developed and specified, both within the EU and in Ukraine.

### 1. IRNet - International Research Network

Developing and implementation of the system designed to develop IT competences of contemporary specialists, in particular future teachers, current teachers, leaders, based on the systematic use of selected Internet technologies, such as some LCMS systems (as Moodle), Massive Open Online Courses, "virtual classroom" technology, social media, other selected Web 2.0 and Web 3.0 technology positively contributes to the development of skills in the area of IT and intercultural competences. **IRNet - International Research Network for study and development of new tools and methods for advanced pedagogical science in the field of ICT instruments, e-learning and intercultural competences.** This project is financed by the European Commission under the 7th Framework Programme, within the Marie Curie Actions International Research Staff Exchange Scheme. Grant Agreement No: PIRSES-GA-2013-612536. Duration of the project: 48 months 1/01/2014 – 31/12/2017. The IRNet project aims to set up a thematic multidisciplinary joint exchange programme dedicated to research and development of new tools for advanced pedagogical science in the field of ICT instruments, distance learning and intercultural competences in the EU (Poland, the Netherlands,

Spain, Portugal, Slovakia) and Third Countries (Australia, Russia, Ukraine). The programme will strengthen existing collaboration and establish new scientific contacts through mutual secondments of researchers. The main objectives of the project are: 1) to exchange expertise and knowledge in the field of the innovative techniques of education between EU and Third Countries and suggest effective strategies of implementing new tools in their profession; 2) to analyse and evaluate social, economic, legal conditions, as well as methodologies and e-learning techniques being developed in the European and Third Countries involved.

The IRNet project aims to set up a thematic multidisciplinary joint exchange programme dedicated to development of new tools for advanced pedagogical science in the field of ICT instruments, distance learning and intercultural competences in the EU, Australia, Ukraine and Russia. The programme will strengthen existing collaboration between EU partners, and 3 third country institutions of higher education through mutual secondments of researchers. A more detailed conception of the project is described in the Project application and on the project web-site ([www.irnet.us.edu.pl](http://www.irnet.us.edu.pl))

The main objectives of the project are as follows:

1. **To evaluate teaching competences and to suggest effective strategies of implementing new innovative tools in the educational activity in the context of globalization of education.**
2. To explore indicators of educational effectiveness in the EU and third countries involved in the project.
3. To exchange experiences, analyse and evaluate teaching competences in the use of innovative forms of education and suggest effective strategies of implementing innovative ICT tools in the education activity.
4. To analyse and evaluate social, economic, law and ethics conditions, as well as methodologies and models of e-learning techniques being developed in the European and third countries involved into the project.
5. To evaluate the effectiveness of the existing models/methodologies designed to provide e-learning and enhance intercultural awareness.
6. To develop a new model based on the current existing models/methodologies and literature review.
7. To evaluate and present new models/methodologies for an effective remote collaborative work and improve information technologies in Education Science in EU and third countries.
8. To actively transfer knowledge with a view to generating strategic impacts in the thematic research area.

9. To promote scientific discussion about the integrity of systems of education and work focusing on competence issues in the context of globalization of higher education.

10. **Staff exchange between institutions in Europe** (the Czech Republic, the Netherlands, Poland, Slovakia, Spain, Portugal) **and third countries** (Ukraine, Russia and Australia).

11. **To strengthen existing collaborative research** (e-learning methodology, web 2.0, web 3.0 technology analyses, intercultural competences, teacher skills in school of the future, social, human, IT, psychological, methodical, ethical, law factors, influence on the development of some key competences) (IRNet Project Application, [www.irnet.us.edu.pl](http://www.irnet.us.edu.pl)).

## **2. SETTING OUT THE METHODOLOGY OF THE INVESTIGATION, DESCRIPTION OF THE PROCEDURES, DATA AND THEIR ANALYSIS, CONCLUSION ON THE STATE OF THE ICT AND E-LEARNING COMPETENCES AND INTERCULTURAL AWARENESS**

### **2.1. Methods**

Scientific research involves the selection of appropriate methods and practices in order to achieve a particular purpose, solve a research problem, and obtain the results of research. "The research method is understood to mean a set of theoretically justified conceptual and instrumental procedures covering generally all of the researcher's actions in the course of the attempt to solve a certain scientific problem" (Pilch 1995). The concept of research methods is directly related to the term research techniques. According to (Łobocki 2003) "... a research technique is always a particularized variety of research methods." It is used for carefully collecting suitable research material (Smyrnova-Trybulska et al 2014a).

The planned scientific activities are divided into **seven interconnected work packages** (<http://www.irnet.us.edu.pl/documents>) in order to structure the work planned, of which five are based on joint researches of all the partners, one is focused on the dissemination of results (WP7) and one WP is designed to project management (WP1). Each of Work Packages is designed to one of main research activities of the project and aims to develop a new conceptual and methodological approach in the thematic research area. These will be also a basis of long term research collaboration promoting knowledge transfer between EU and third countries.

### **2.2 Research instruments**

To achieve the aims of the project the research group developed a questionnaire which is designed to gain data on the students' views and attitudes towards various

educational processes in their educational environments, entailing modes of ICT implementation, intercultural and professional competences.

A comparison of different factors of ICT and e-learning in several partner countries is carried out using *methods, research techniques and tools* compatible with the aims and tasks of WP2. Research methods are divided into *quantitative* and *qualitative* pedagogy.

I. Methods of pedagogical research:

- a. *Quantitative*: 1) pedagogical monograph (research papers), 2) method of individual cases, 3) method of diagnostic survey.
- b. *Qualitative*: 1) depth interview, 2) qualitative analysis of the text (documents), 3) observation.

II. Techniques of educational research:

- 1) observation,
- 2) interview,
- 3) questionnaire,
- 4) study and analysis of documents,
- 5) content analysis.

III. The main research tools:

- 1) interview questionnaire,
- 2) questionnaire,
- 3) survey,
- 4) observation tools,
- 5) *development of the subject dictionary*,
- 6) research trip and visiting a partner university,
- 7) meeting, (video)conference, seminar, workshop, etc.

Researchers will be expected to take part also in events, such as conferences, workshops and roundtables, particularly ones that deal specifically with their topic(s) of research, for example:

- Initial seminar in Poland in a remote form (using Adobe Connect technology for videoconferences) (held on 12 November 2013).
- Meeting for all project participants in Spain (held in March 2014).
- Videoconferences and roundtable debate once a month (scheduler of the project videoconferences available on <http://www.irnet.us.edu.pl/news>).
- Meeting and Workshop (HSPU, Russia) (held in April 2014).
- Conferences:

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- International scientific-practical conference "High-tech information educational environment", April 15, 2014 at Herzen State Pedagogical University of Russia (held on 15 April 2014).
  - International Scientific Conference DIVAI 2014 (Distance Learning in Applied Informatics) UKF (Slovak Republic), (was held 5-7 May, 2014);
  - International Scientific Conference "Innovations in higher education and dissemination of the initial results of the research on the law, ethical, human, technical, social factors of ICT developments, e-learning and intercultural developments in deferent countries" (DSTU, Ukraine), (was held 24-26 June, 2014), others.

The diagnostic research instrument of more than 60 questions was translated into students' native languages (Czech, English, Netherlands, Polish, Portuguese, Russian, Slovak, Spanish, Ukrainian) and presented in on-line versions by university survey system and by Google Drive.

The questionnaire covered the following topics:

- 1) Sociological data required for the purposes of the research (Country, Nationality, Sex, Age, Name of the university, Field of study, Specialization, Year of study, Level of studies (Bachelor's degree, Master's degree))
- 2) The group of questions, in the area of intercultural competences.
- 3) The group of questions, concerning ICT competences, using social media for extracurricular activities of students.
- 4) The survey questions which are reflective in nature, revealing students' opinions about the courses and their assessment in terms of substantive, methodological, technological, organizational aspects, and e-learning as a technology, method and a form of obtaining education.

### 2.3. Some research outcomes

The project seeks to use the synergies and complementarities of the 10 research teams to furnish a more accurate and holistic picture of the current state of universities. Each of these Work Packages is designed to produce specific outputs: workshops to discuss the results, a website, a working paper series to put the research results quickly into the public domain, and a book covering the scientific achievements. Overall, the work packages aim to widen an established research agenda and to develop a new conceptual and methodological approach. These will be the basis of a joint research application and long term research collaboration, which will assist in promoting and reflecting upon a knowledge transfer between EU and non-EU countries. (Kommers et al 2014). The Tables 1 and 3 shows a Comparison of legal factors of ICT and e-learning development in **The**

**Netherlands, Poland, Ukraine, Russian Federation, Australia, Spain, Portugal, Czech Republic, Slovakia.** The Tables 2 and 4 includes Comparison of legal factors at UT, US, BGKU, HSPU, CU, UEx, LU, UO, UKF universities participating in the project.

**Table 1.**

Comparison of legal factors of ICT and e-learning development in the **Netherlands, Poland, Ukraine, Russian Federation and Australia**

<i>ICT and e-learning in education</i>				
<b>The Netherlands</b>	<b>Poland</b>	<b>Ukraine</b>	<b>Russian Federation</b>	<b>Australia</b>
The Dutch State University system is characterized by free entrance for each student who graduated from the secondary school, provided that the needed subject courses have been covered. The targeted competences are both academic and professional. Still the prescribed language for the bachelor stage is Dutch; Masters- and Ph.D. curricula are saturated with English at the moment.	Standards of education. Preparing for the teaching profession (Law on Higher Education, Act of 27 July 2005, Article 9c.)	National Qualifications Framework (Resolution of Cabinet of Ministers of Ukraine, 11 November 2011)	Decree of the Ministry of Education and Science of the Russian Federation dated 03.08.2012 № 583 "On monitoring the activities of federal government educational institutions of higher education" ( <a href="http://www.edu.ru/db-mon/mo/Data/d_12/m583.html">http://www.edu.ru/db-mon/mo/Data/d_12/m583.html</a> )	In Australia, students are eligible to enter the universities based on their average and experience. "On Australian and International Students should pay fees for the bachelor and postgraduate degrees, Fees are waived for Australian students who will complete the Master of philosophy and a PhD. All the courses are taught in English. According to Australian Curriculum Assessment and Reporting Authority (2012) Digital technologies are available in higher education to enhance students' knowledge and skills to locate, manage, organise, analyse, represent and present information, and to collaborate, share and exchange information and support thinking and engagement.

*Could distance learning be officially used as a legal learning and teaching form and teaching at high school? What are the conditions?*

The Netherlands	Poland	Ukraine	Russian Federation	Australia
<p>The use of media in Dutch Higher Education is encouraged as far as it contributes to flexibility and internationalisation. Step by step the ministry of higher education becomes aware that MOOCs are helpful to keep diversity in programs alive as not all specialties can be afforded by the limited number of universities staff members.</p>	<p>The number of hours in remote mode does not exceed 60 % of the total number of hours of classes. (Regulation of the Minister of Science and Higher Education of 9 May 2008)</p>	<p>Regulation of the Minister of Science and Higher Education of April 2013</p> <p>The Regulation defines the distance form similar to the remote form. The Regulation does not detail the time, which can be used by teachers of the University to conduct classes on-line. The Resolution (authorization) on the implementation of the distance education, as a separate form of student training, can be granted to Universities can receive by the Ministry of Education and Science in respect of the structural units that are geographically distant from the head office of the University. The University is not allowed to freely choose and implement such learning. On July 1, 2014 Ministry of Education and Science allowed only 15 universities to implement distance education officially. All the other Universities have to conduct blended learning.</p> <p>Since 2013, to the indicators of the Universities rating conducted by Ministry of Education and Science and public organizations indicators have been added that are connected with the presence of University resources in the Internet – Webometrics indicators. Such indicators are an incentive for the Heads of Universities to implement distance learning and expand e-resources that are part of the electronic learning environment of the University</p>	<p>Federal law “About Education”</p> <p>The Law officially provides the possibility to use e-learning and distance learning technologies. Organizations engaged in educational activities are able to use e-learning and distance education technologies in the implementation of educational programs.</p>	<p>The Australian universities are using various teaching modes i.e. F2F, Online, MOOC and Distributed, to coverage anytime, anywhere, any device and to match student and employer satisfaction. Curtin University is using the above modes to facilitate learning experiences for students.</p>

**Table 2**

Comparison of legal factors at UT, US, BGKU, HSPU, CU universities participating in the project

University of Twente in Enschede	University of Silesia in Katowice	Borys Grinchenko Kyiv University	HSPU	Curtin University
<p>The University of Twente has adopted the potential of MOOCs in a way that stimulates the further evolution of mediated learning, both on- and off-campus. Its goal is growing quality awareness at the level of teachers and curricular designers.</p>	<p>Decree No. 66/2012 formally allows one to teach up to 60% of classes in the remote mode. Proper operation of university distance learning platforms and their availability is coordinated by the Director of the Distance Learning Center (DLC) at the University of Silesia. A prerequisite for an academic teacher of distance-mode classes is to undergo special training, organized by the DLC at the University of Silesia (5 hours for lecture and 20 hours for authors). Dean may exempt an academic teacher who has experience in the methods and techniques of distance education from the educational training. Field activities, workshops and laboratories are not carried out in the . An academic teacher can teach classes in the distance mode during the academic year for no more than 50% of the hours of their normal working hours.(Degree No 66)</p>	<p>Approval of the Regulation on e-learning courses in primary LMS Moodle, and special requirements for e-learning courses certification, 2012 The concept of e-dean in LMS Moodle and its use in the educational process of the University, № 329 \ 2013 Regulations on the DL at the University, 2014 Regulations on the use of DT in a part-time form of study, according to which in the intersession period (80% of teaching time) LMS Moodle, containing certified e-learning courses for students is mandatory to be used, 2014</p>	<p>Development and implementation of primary and secondary education program (Development program 2012-2015)</p>	<p>Curtin University has adopted MOOC courses, and the first course attracts more than 1500 students. MOOC mode aims to deliver the materials online to anyone in the world, and to raise awareness, quality, skills and knowledge among the students.</p>
<p>Quite recently the board of governors at the university of</p>	<p>Increase in the number of e-learning courses and greater</p>	<p>Approval of the Regulation of professional development of teacher</p>	<p>Development of electronic educational</p>	<p>Curtin University developed so</p>

<p>Twente has expressed explicit interest to undertake MOOCs as a format for implementing fields of excellence. One of the challenges is to integrate social (pseudo) presence, constructivism, problem-based learning and social media. Prior to these mechanisms, there is a need to allow students to prove competence through unique, authentic learning achievements like design and societal problem solving, rather than just checking if the curricular components are mastered.</p>	<p>activity in distance teaching. Organisation of lifelong learning courses and training – also in the form of e-learning in Polish and English – in the use of electronic databases for students, doctoral candidates and employees. Using modern computer and information technologies for more individualised education in the form of e-learning and blended learning (Development Strategy 2012-2020). Development, launch and organization of in-service training courses in distance learning and incorporating them into domestic academic teachers and students by 2013. Distance Learning Centre (DLC) standard of Master’s (Development Strategy 2012-2020).</p>	<p>by the creation of e-learning courses a compulsory for all teachers, availability of an electronic course as a necessary condition for receiving the title of associate professor and professor. Increase in the number of e-learning courses Using and developing information technologies for more individualised education in the form of e-learning and blended learning (Development Strategy 2013-2018). Decree on the Experiment of using mixed type of education in teaching master programmes, 2013 Decree on the mandatory use of ELC in teaching correspondence department students, 2014 Order on analysis of service training Webometrics ranking indicators for all University Institutes and incorporating them into domestic university rankings, and students by 2013. Approval of a corporate standard of Master’s ICT competence, 2014 Approval of a corporate standard of university teacher’s ICT competence, 2014</p>	<p>resources aimed at remote support for various categories of students (pupils, students, professors, teachers, people with disabilities), including in foreign languages. Teachers’ training in implementation of remote support for students with the use of electronic educational resources (Development program 2012–2015)</p>	<p>far, three MOOCs, and implemented two of these in 2013. As well as, Curtin is building a world-leading group of online courses through Curtin Online and Open Universities Australia. Currently, Curtin is using the Innovation Studio, which is a collaborative workspace, to assist in teaching and learning needs and achieve students’ needs.</p>
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**Table 3.**

**Comparison of legal factors of ICT and e-learning development in Spain, Portugal, the Czech Republic, Slovakia**

<i>ICT and e-learning in education</i>			
<b>Spain</b>	<b>Portugal</b>	<b>Czech Republic</b>	<b>Slovakia</b>
Law of Universities. Organic Law 6/2001. BOE 24-12-2001 ( <a href="http://www.boe.es/boe/dias/2001/12/24/pdfs/A49400-49425.pdf">http://www.boe.es/boe/dias/2001/12/24/pdfs/A49400-49425.pdf</a> ). Law that modifies the Law of Universities: Organic Law 4-2007. BOE	Education System Base Law (Law 46/86, modified by the Law 115/97)	Act no. 111/1998 coll. (amended and consolidated) On higher education institutions And on amendments and supplements to some other acts (the higher education act)	Law. No. 131/2002 on higher education institutions, Last changes 1.1.2014; Law. No. 455/2012, which modifies

<p>13-4-2007 (<a href="http://www.boe.es/boe/dias/2007/04/13/pdfs/A16241-16260.pdf">http://www.boe.es/boe/dias/2007/04/13/pdfs/A16241-16260.pdf</a>).</p>	<p>the law no. 131/2002 On higher education institutions and on the amendment to some other acts.</p>	
<p>It is not officially regulated. Options: 1. Officials Titles of the Ministry of Education are regulated by the National Agency for Quality Assessment and Accreditation (ANECA). 2. Officials Titles of the each University are regulated by the Council of Government of University.</p>	<p>In the Article 16<sup>th</sup> c), of the 46/86 law the distance learning is considered as a special yet valid method for learning Article 21<sup>st</sup> of the same law is specific for distance learning and it states on its point number 3 that the open University is part of distance learning</p>	<p>Section 44, ACT NO. 111/1998 Coll. states that „A higher education is earned through studies within the framework of an accredited degree programme offered in line with the curriculum for the given mode of studies.“ <b>Distance mode of study and combination of full-time and distance mode</b> All study programmes must be backed up by study support in all the courses taught in the distance mode. Study support consists of a set of information which substitutes direct teaching. It cannot be an excerpt from a textbook or another reduced text. Study support must include tasks for student’s individual work, rules for communication with the tutor etc.</p>

*Source: Own research, 2014*

**Table 4.**

Comparison of legal factors at universities UEx, LU, UO, UKF participating in the project

University of Extremadura, Spain	Lusiada Lisbon University, Portugal	University of Ostrava, Czech Republic	Constantine the Philosopher University in Nitra, Slovakia
<p>It is not officially regulated. Each educational project, face to face, e-learning or b-learning, can have various modalities and configurations. It must be approved by the Council of Government of University</p>	<p>Law 46/86 allows open University to use distance learning. We are implementing a way to use distance tools to teach our students in partner countries such as Angola or Cape Verde</p>	<p>The University of Ostrava has the „Internal Accreditation Commission“ that considers whether the accreditation applications of study programmes respect the Accreditation Commission Standards.</p>	<p>The Law 131/2002 defines the study forms and methods. The distance and blended form recommends replacing the direct communications between teachers and students by information and communication technologies.</p>
	<p>Increase of using e-learning platforms such as Moodle platform for</p>	<p>Approximately 50% of regular students studies using the</p>	<p>Distance learning using e-learning is not widely used, LMS is used on the</p>

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<p>general contents and DSpace for multimedia contents. Virtualization of the Academic procedures allowing that great part of the information can be consulted either by internet or by mobile platforms (smartphones, tablets, and so on). Teachers are being impelled to acquire digital competences to deal with the teaching media of the future.</p>	<p>combined form of study, at The Pedagogical Faculty, University of Ostrava. The students use support, internet and tutorials that are provided once a week (6 – 7 hours) each semester.</p> <p>voluntary basis to support the present and distance form of study. ICT technologies are extensively used for the organisation of independent work of students and knowledge control.</p> <p>The managerial and technical aspects of the e-learning implementation at UKF are defined in the internal directive 14/2007.</p>
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*Source: Own research, 2014*

The above tables include a Comparison of legal factors of ICT and e-learning development in the different partner countries from West, Central, East European and Australia, and show shared identical, similar, overlapping data and differences in state policies and university regulations in different project partners. For example in the West European universities the potential of MOOCs is adopted in a such way that stimulates the further use of other ICT tools and e-learning for flexible learning and teaching and for internationalisation of education. In the Central European universities and in Australia blended learning is implemented on the basis of the Regulation of the Minister of Science and Higher Education, for example in Poland the number of hours in the remote mode does not exceed 60 % of the total number of hours of classes. In Russia and Ukraine also a Regulation of the Minister of Science and Higher Education has been issued which defines the distance form similar to the remote form. Simultaneously, the Regulation does not specify the time, which can be used by teachers of the University to conduct classes on-line. One of the aims of this WorkPackages research was to analyse legal, ethical, human, techniques, social factors of the development of ICT, e-learning and intercultural development in every partner countries by studying government as well as university documents, resolutions, etc. The researchers took part in events, such as conferences, workshops and roundtables. Through this activity the partners and researchers could be involved in collective research, an exchange of results of study as well as previous experience and development of suggestions on the factors which contribute to the higher/lower level of the examined competences and possible solutions to improve the situation at the national level.

It can be observed that due to the extensive use of technology in the practice of e-learning in Russia, more and more legislative activities are being undertaken in order to ensure a flexible legal framework for the implementation of these technologies in the educational institutions of different levels. The main prerequisites for organizing this type educational interaction are determined by the Federal Law About

Education (2012), the concept of a unified information educational environment in Russia (2013), and the Order of Ministry of Education and Science, which prescribes the manner in which e-learning and distance learning technologies should be used (2014).

At the same time, these regulations contain a number of contradictions and insufficiently developed items that need to be complemented by regulatory enactments at the university level. In particular, it concerns the distribution of classroom and distance learning classes. For optimal organization of the educational process with the use of e-learning technologies the experience of universities that participate in the project is relevant and useful for Russia. Consequently, all the universities are deeply involved in e-learning. It depends on the university educational policy. However, students are accustomed to submitting their results by electronic methods and consider such a way quite effective.

The results obtained during the survey of students' questionnaire prove close relationship and mutual influence of classroom and extracurricular interactions in the virtual learning environment. The virtual learning environment is effective when it reflects students' interests and demands: educational information, suggestions for work, invitations to participate in events (conference, contests), photo galleries and reports on past events, resources for distant learning and other educational resources (Noskova et al).

### **3. SUGGESTIONS ON THE FACTORS WHICH CONTRIBUTE TO THE HIGHER/LOWER LEVEL OF THE EXAMINED COMPETENCES AND POSSIBLE SOLUTIONS TO IMPROVE THE SITUATION AT THE NATIONAL LEVEL**

The next stage of the project research is implementation of the WorkPackage 3 (Coordinator prof. Tatiana Noskova, HSPU). One of the most important aims of this WP3 is: to analyze methodological background and main approaches of conducting international investigations on ICT, e-learning and intercultural competences in order to work out a system of measuring instruments appropriate for the research at the international level.

#### **3.1. WP3: Analyses and evaluation of the ICT level, e-learning and intercultural competences development in every participating countries**

##### **3.1.1. Objectives**

- To analyse and evaluate the level of ICT, e-learning and intercultural developments in every participating country applying the system of measuring instruments approved
- To compare the results obtained and to draw the conclusion about barriers in ICT, e-learning and intercultural competences, taking into consideration descriptions

of the national specifics of law, human, social, ethical and technological factors of their implementation drawn at the previous WP.

Analyses and evaluation of the ICT level, e-learning and intercultural competences development in every participating countries.

### **3.1.2. Description of work**

On terms of mutual research and under the supervision of the US (Poland), partners from UT (The Netherlands), UEx (Spain), UKF (Slovak Republic), CU (Australia), BGKU (Ukraine), DSTU (Ukraine), HSPU (Russia), OU (Czech Republic), LU (Portugal) will be engaged in a critical review of the existing methodological literature, learning of the experiences in cross-cultural evaluation at the international level, study of the measuring instruments.

Task 3.1: The main task of WP is to develop a system of instruments which will be appropriate for application in every country participating in the project, and will allow to obtain reliable and comparable data about ICT development, e-learning, teachers' and students' practices and attitudes towards ICT in their learning and professional life as well as their intercultural awareness. Investigation embraces domestic and foreign experience in the field of distance learning and the use of remote forms of education and IT technologies in preparing contemporary specialists, in particular future teachers. It includes identification and theoretical justification of the basic principles, forms, methods of effective use of ICT and remote forms of teaching in the educational process in higher education institutions.

Task 3.2: Comparison of the data obtained with the information elicited and generalized at the previous stage about the legal, ethical, human, technological and social factors that will help to discriminate factors influencing ICT and e-learning competences and intercultural awareness. Instruments supposed to be implemented are interviews of students, teachers and administrations of the institutions, observation over the learning practices, analysis of teaching and learning downloads and teaching materials, courses and their curricula, testing of students' learning outcomes, etc.

Task 3.3: The number of participants in the research will be stated according to the demand to obtain objective and profound information of ICT development, e-learning and intercultural competence in every participating country. The data are going to be analyzed by the statistical methods proving their significance, reliability and objectivity.

Task 3.4: Researchers will be expected to take part in events, such as conferences, workshops and roundtables, particularly ones that deal with their topic(s) of research: *ICTE-2014 at OU (Czech Republic) (presence and remote participation, separately financing, for example, statutory research, Erasmus, University, Departments funds).*

Task 3.5: Conference *Education of children and youth in culturally diverse environments 2014 at the US* (Poland), Conference *Theoretical and Practical Aspects of Distance Learning 2014 (Subtitle: E-learning and Intercultural Developments in Different Countries)* and *Workshop at the US* (Poland).

Task 3.6: Meeting in Australia (in presence and remote form),

Task 3.7: Workshop and e-round table debate in LU (Portugal),

Task 3.8: Meeting and workshop in UT (Netherlands),

Task 3.9: International Scientific Conference *"New educational strategies in contemporary digital environment"* (HSPU, Russia)

### **3.1.3. Deliverables**

D 3.1. Month: 9 - 4 scientific papers, published in the *ICTE 2014 Conference proceeding*

D 3.2. Month: 10 - Discussion and e-round table debate *Analyses and Evaluation of the ICT and E-learning and intercultural competences in Australia, Czech Republic, Netherlands, Poland, Portugal Russia, Slovak Republic, Spain and Ukraine during presence meeting and on-line videoconference*, conducted by CU.

D 3.3. Month: 10 - Monograph *Education of children and youth in culturally diverse environments*

D 3.4. Month: 11 - Scientific working paper on *Contrastive Analyses and Evaluation of the ICT and e-learning and intercultural competences in Australia, Czech Republic, Netherlands, Poland, Portugal, Russia, Slovak Republic, Spain and Ukraine setting out the methodology of the investigation, description of the procedures, data and their analysis, conclusion on the state of the ICT and e-learning competences and intercultural awareness, suggestions on the factors which contribute to the higher/lower level of the examined competences and possible solutions to improve the situation at the national level.*

D 3.5. Month: 12 - Monograph *E-learning and Intercultural Developments in Different Countries*

D 3.6. Month: 16 - Scientific paper titled *New Educational Strategies in Contemporary Digital Environment, prepared for publish in Scientific International Journal IJCEELL (published during 3 months after sending to the Journal)*

D 3.7. Month: 16 - 2 Scientific papers, prepared to publish in Scientific International Journal IJWBC (published during 3 month after sending to the Journal) (IRNet project Application, [www.irnet.us.edu.pl](http://www.irnet.us.edu.pl))

## CONCLUSION

It is expected that further partnership's contribution to the area of collaboration will be as follows: A dataset for the analysis of the level of development of ICT, e-learning, intercultural competences in different EU countries; A literature and IT tools review and analysis of its place and level in European educational system and in the countries – project partners. The arrangements of different types of temporary work contracts as implemented in each of the EU countries under consideration will be studied; A detailed ICT and intercultural competences developing methodology for the evaluation of the network research effect in educational institutions of different EU countries; A deepening of the classification of different welfare state regimes, assessing their effectiveness to represent different educational institutions. This result will be achieved by means also of cluster analysis of the systems based on different methodologies and variables; A detailed identikit of teacher in each of the six countries mentioned elsewhere in this project as an expression of a given welfare and educational regime; Country studies aimed at assessing the network research effect in each country considered. The final stage of elaboration of these studies will consist of submitting them to international journals; implementation of methodologies; A cross-country study of the network research effect; Education suggestions on the issues studied in the project.

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