

E-LEARNING & LIFELONG LEARNING

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***Abstract:** Digital literacy and other key competences are an essential condition of the preparation of specialists in the knowledge society, and employability of workforce and of all citizens. In this context, not only formal education but also non-formal and informal education will be of crucial importance for lifelong learning. E-learning is one of the main, modern forms, methods, technologies of teaching and learning today. In the present article the author considers the relation between e-learning and lifelong learning: the challenge and prospects for the future; comparative characterisation of Formal, Non-formal and Informal (Distance) Learning; new proposals of Postgraduate studies and specialization in the context of the New Digital Agenda for Europe 2013-2014 and some research outcomes – results of a student survey in the area of e-learning.*

Keywords: E-learning, lifelong learning, formal, non-formal, informal learning, education.

INTRODUCTION

In Saint Petersburg G20 Leaders' Declaration of September 6, 2013 we can read: "26. Policy reforms to support higher employment and facilitate job creation and better matching of skills with job opportunities are central in our growth strategies. We commit to take a broad-ranged action, tailored to national circumstances, to promote more and better jobs..." and later: "Invest in our people's skills, quality education and **lifelong learning programs** to give them skill portability and better prospects, to facilitate mobility and enhance employability. (G20 Leaders' Declaration, September 6, 2013, St Petersburg" (<http://www.g20.utoronto.ca/2013/2013-0906-declaration.html>). The 'Europe 2020' strategy for smart, sustainable and inclusive growth calls for the development of knowledge, skills and competences for achieving economic growth and employment. The accompanying flagship initiatives 'Youth on the Move' and the 'Agenda for new skills and jobs' emphasise the need for more flexible learning pathways that can improve entry into and progression in the labour market, facilitate transitions between the phases of

work and learning and promote the validation of non-formal and informal learning (Council Recommendation, 2012). In this context, later on in the paper, the author argues that not only formal education but also non-formal and informal education, based on e-learning, will be of crucial importance for lifelong learning.

1. LIFELONG LEARNING IN KNOWLEDGE SOCIETY: THE CHALLENGE AND PROSPECTS FOR THE FUTURE

In the course of the last 20 years we have witnessed great economic changes, economic, social, political, and technological developments in Poland as well as in all European countries and around the world that require adequate systems, accompanied by fast and permanent measures to effectively adapt to new challenges. At the international level and national levels a number of documents have been written to address these issues: *White Paper on Education and Training Teaching and Learning Towards the Learning Society European Commission COM(95) 590, November 1995*; - *eEurope 2002*; - *The White Paper on Youth policies (2002)*; *The Copenhagen Declaration (30 November 2002) and the Council Resolution (19 December 2002)*; *The Digital Agenda for Europe 2013-2014 (2013)*; *Strategy of Information Society Development in Poland for the years 2007-2013*. Other documents have also been prepared that describe in detail all challenges for contemporary states, economies, society and citizens. Among the priorities is the **lifelong learning (LL)**.

For example, in Lisbon, it was made clear that achieving full employment would require a radical transformation of the economy and skills to match the opportunities of the new economy.

The first challenge is education and training. Education will make a major contribution to developing new skills but its results will inevitably only be realised in the longer term. More needs to be done (*eEurope 2002*)

First of all this concerning jobs for information technology professionals. The Digital Agenda for Europe 2013-2014 (<https://ec.europa.eu/digital-agenda/en/news/digital-do-list-new-digital-priorities-2013-2014>) analyses and describes in particularly 5) Entrepreneurship and digital jobs and skills and in this documents has stressed, that “The Commission signals that by 2015 700,000 to 1 million ICT jobs will not be filled in Europe, due to lack of skilled personnel (The Digital Agenda for Europe 2013-2014).

However, the challenge is wider than just meeting the demand for information technology professionals. Digital literacy is an essential element of the adaptability of the workforce and the employability of all citizens. In this context, the responsibility of enterprises for training 'on the job' will be of crucial importance for **lifelong learning**. An award for enterprises that are particularly successful in developing human resources could be envisaged.

...Work can be made more attractive through more attractive and accessible through flexible work arrangements such as telework. Particular efforts should be made to attract women to the information technology professions where they are massively underrepresented and where they represent a largely untapped resource in most countries. (*eEurope 2002*)

In the chapter entitled “*Working in the knowledge-based economy*” the Lisbon European Council concluded that: - **Lifelong learning** should be given higher priority as a basic component of the European social model. - The need for a substantial increase in per capita investment in human resources. - A European framework should define new basic skills, with decentralized certification procedures, to be provided through **lifelong learning** and a European diploma for basic IT skills should be established. - The need for adaptability through flexible management of working time and...through making it easier to reconcile working and family life. (*eEurope 2002*)

In *White Paper* (1995) in the Chapter **C Action in the Member States** we can read: “Significant developments are taking place throughout Europe. All education systems are seeking to improve quality, to develop training provision, to provide lifelong learning, and to improve the use of financial resources.” (White Paper, 1995)

Education, training and employability were recognised by the European Lisbon Council in March 2000 as an integral part of economic and social policies needed to attain the strategic goal of Europe becoming the world’s most dynamic knowledge-based economy by 2010.

In follow-up to the report on the concrete future objectives of European education and training systems (March 2001), the detailed work programme adopted by the Council (14 June 2002), called for the development of ways to officially validate non-formal learning experiences. The Commission White Paper entitled ‘A new impetus for European Youth’ (21 November 2001) which set out a new framework for European co-operation on youth affairs, stressed the importance of non-formal learning and education.

The Council Resolution on Lifelong Learning (27 June 2002) invites the Member States to encourage co-operation and effective measures to validate learning outcomes. The European social partners’ ‘Framework of actions for the lifelong development of competences and qualifications’ (14 March 2002) underlines the point that the recognition and validation of competences and qualifications is both a shared objective and a main priority for action at the European level.

The Copenhagen Declaration (30 November 2002) and the Council Resolution (19 December 2002) on the promotion of enhanced European co-operation in vocational education and training acknowledged that priority should be given to developing a set of common principles regarding validation of non-formal and informal learning with the aim of ensuring greater comparability between approaches in different countries and at different levels.

The Council and Commission Joint Interim Report (26 February 2004) to the Spring European Council, 'Education and Training 2010', states that the development of common European references and principles can usefully support national policies. Although such common principles do not create obligations for Member States, they contribute to developing mutual trust between the key players and encouraging reform. The Joint Interim Report specifically calls for the development of common European principles for **the validation of non-formal and informal learning**. (*Draft Conclusions ...*, Council of the European Union, Brussels, 18 May 2004)

The concept of lifelong learning is already a reality today and in the future its importance will continue to grow! The term "lifelong learning" means a new approach to learning, and suggests the possibility of lifelong learning in a variety of formal and informal situations.

The concept of lifelong learning was disseminated in the 60's, 70's, and has since greatly expanded its scope. The concept of lifelong learning and education is based on a formal education system under which a person is provided with an opportunity to raise their educational level. This system is mainly focused on offer.

The concept of lifelong learning is focused on the person in the context of his employment and active citizenship. In this sense, lifelong learning is focused on requirements posed by the labour market, rather than on a proposal from the vocational education and training.

Lifelong education involves training, carried out both inside and outside of the formal education system in a wide variety of new contexts. This means that the main key skill is the ability of a person to search for new knowledge and develop new competencies without the support of formal education.

Further development of the concept of lifelong learning calls for new ways of thinking in the education system. These include:

- A structured approach to learning, in which students are actively involved in learning from pre-school and primary school level;
- Providing access to information on formal and informal education;
- Availability of verification systems for competence acquired outside the formal education system. (*Report: Lifelong learning ...*, 2002).

The number of "digital natives" is growing and they are in need of continuing education and lifelong learning. If current trends in Europe continue, characterized by an aging population over the next two decades, more than 50 % of the population will be older than 50 by 2030, and life expectancy will be increased to 90 years. Children of the 21st century - modern "digital natives" born in the world of information technology, like their parents, will have to undergo lifelong training in the use of the new technological environment. To meet the educational needs of the population, lifelong learning and continuing education system must be transformed.

Also, such an educational activity will require the person to make financial and physical efforts and investments. (*Il'chenko, 2010*)

2. E-LEARNING AND LIFELONG LEARNING. FORMAL, NON-FORMAL AND INFORMAL LEARNING IN LIFELONG LEARNING CONTEXT

The Council conclusions of 12 May 2009 on a strategic framework for European cooperation in education and training (ET 2020) (1) state that lifelong learning should be regarded as a fundamental principle underpinning the entire framework, which is designed to cover learning in all contexts whether **formal, non-formal or informal**. (COUNCIL RECOMMENDATION, 2012)

The validation of learning outcomes, namely knowledge, skills and competences acquired through non-formal and informal learning can play an important role in enhancing employability and mobility, as well as increasing motivation for lifelong learning, particularly in the case of the socio-economically disadvantaged or the low-qualified. (COUNCIL RECOMMENDATION, 2012)

European countries are increasingly emphasising the need to recognise the full range of an individual's knowledge, skills and competences – those acquired not only at school, university or other education and training institutions, but also outside the formal system. (*Web-site of European Commission concerning Education & training and Lifelong Learning Policy*)

This requires new approaches to validate such learning experiences (i.e. identify, document, assess and/or certify), making them usable for further studies or advancement in work. Helping people in this way could also make a contribution to smart, sustainable and inclusive growth. (*Web-site of European Commission concerning Education & training and Lifelong Learning Policy*)

Formal learning means learning which takes place in an organised and structured environment, specifically dedicated to learning, and typically leads to the award of a qualification, usually in the form of a certificate or a diploma; it includes systems of general education, initial vocational training and higher education (COUNCIL RECOMMENDATION, 2012)

There are different definitions of *formal, non-formal and informal learning*, developed by scientists and authors. Some well known definitions of this category can be found in Wikipedia ([http://en.wikipedia.org/wiki/ Nonformal_learning](http://en.wikipedia.org/wiki/Nonformal_learning)) and on the Web-site of European Commission (http://ec.europa.eu/education/lifelong-learning-policy/informal_en.htm)

Learning taking place outside formal education and training bodies is crucially important for individuals, companies and society at large. Existing information about validation of non-formal and informal learning is, however, in most countries, rather limited in scope. Making informal and non-formal learning visible and

validated is an intrinsically challenging task. (European Inventory — Validation of non-formal and informal learning. 2004. URL: <http://www.ecotec.com/europeaninventory>). The European inventory is an ongoing project. Three complementary reports have so far been produced: one by Danielle Collardyn and Jens Bjornavold and two by ECOTEC Research & Consulting. All three reports are available on Web site of European inventory Project (<http://www.ecotec.com/europeaninventory>)

Educational institutions together ... (*educational institutions*, author comments) create pressures on models of educational provision at all stages of education from childhood to workplace learning. Heppell (2007), amongst many, points to the need for an education system that helps people to help each other, rather than one that delivers learning. The barriers between formal and informal learning, and between online and face-to-face learning are currently being broken down, allowing the development of new models that take into account the range of learners' experience outside formal study, and the affective elements of learning. (Buckingham, Ferguson 2012). Social learning has been conceptualised as societal learning in general, as processes of interaction that lead to concerted action for change, as group learning, and as the learning of individuals within a social context (Blackmore 2010). The author's conception of online social learning (Buckingham, Ferguson 2012) takes into account the changing affordances of a world in which social activity increasingly takes place at a distance and in mediated forms. It is succinctly expressed by Seely Brown and Adler (2008) as being "based on the premise that our understanding of content is socially constructed through conversations about that content and through grounded interactions, especially with others, around problems or actions." (Buckingham, Ferguson 2012). The characteristics of online social learning have been described by Buckingham, Ferguson in their publication in 2012 (Buckingham, Ferguson 2012: 9).

Table 1.

Comparative characterisation of formal, non-formal and informal (distance) learning

| Features | Formal (D)L | Non-formal (D)L | Informal (D)L |
|-----------------------------|--|--|--|
| Where? | In public (state-run) and private institutions (high school, university) | Basically out of state and private institutions, sometimes with their support or involvement | Outside of public and private educational institutions. In everyday life |
| A clear educational purpose | Yes | Most often Yes | Sometimes it is not explicitly present or None |
| Organization of the process | It is clearly defined, there is a time frame, | Often it is clearly defined, there is a | Spontaneous, on demand, there is no |

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|---|---|--|--|
| | the program (scheduler) is prepared | time frame, the program (scheduler) is prepared | clear time frame, learning, within a network, based on own and other people's experience |
| Accreditation achievements, formal confirmation | The official document – a state certificate, diploma | Most often a non-state certificate, a confirmation, other documents or without certification | Without certification |
| Teacher (Lecturer) | Academic staff, lecturer, academic teacher of educational institution, etc. | Coach, tutor, lecturer | Colleagues in the network; often, if learners have interaction with a specific content, teacher or co-worker, colleague does not need to present |
| IT Tools, place | LCMS, CMS, DL platform, educational portal, etc. | LCMS, CMS, DL platform, educational portal, social networking sites | Generally, social networking sites which are a learning environment, often personal learning environment for users and learners |
| Methodology | Constructivism, Conectivism, Student-centred paradigm, Programming teaching theory, Behavioristic theory, Cognitive pedagogy and psychology | Connectivism, Sometimes: Constructivism, Student-centered paradigm Programming teaching theory, Behaviouristic theory, cognitive pedagogy and psychology | Connectivism, Sometimes other pedagogy theory and methods |
| Lecturer-Student Communication | Yes | Most often Yes | Sometimes it is not explicitly present or No. Nonformal Communication with colleagues, family, other persons |

| | | | |
|---|---|--|--|
| Time, Duration of education, learning? | Time of distance learning is limited. Formal distance education usually equal to the length of study or courses | Time of distance learning is limited. Distance education usually equals to the length or courses or didactic materials (video, post-cast, web-cast, etc.), other Open Educational Resources (<i>OERs</i>) | Permanently, without time limits divided into short or long time periods |
| Examples | Distance courses in high schools within the traditional educational process (Bachelor, Master, skills training, improvement and increase of qualifications, postgraduate studies) | Distance training and learning courses of various organizations. The massive open online courses cMOOC, xMOOC Coursera, eDX, Udacity; Khan Academy TEDx Project. Open learning courses prepared by individual teachers and online communities | Independent decision "personal problems and tasks" with the help of the Internet. Visiting the virtual galleries and museums. Communication network with colleagues and friends. Participation in virtual communities of practice ("social learning") |

Source: Own work based on (Bugaychuk 2013)

2.2. Different Initiatives in the Use of E-learning for Lifelong Learning at the University of Silesia

The University of Silesia in Katowice (US) was established in 1968 and now, with 12 faculties and several interdisciplinary schools and centres, over 35 000 students, educated at Bachelor, Master and Doctoral levels and over 2000 academic staff is one of the largest in Poland. The university, within the framework of its own activity in the of area study, research, science, innovation, cooperation, national and international projects has launched various initiatives in the use of E-learning for lifelong learning. These initiatives include:

- Distance Learning Centre of the University of Silesia (US). The aims, concept as well as the methodology of e-learning implementation at the University of Silesia as well as the activity of Distance Learning Centre of US is described in depth in the article (Widła, Mrocheń, Póltorak 2009). The University of Silesia Distance Learning Centre provides technical support, course administration and training for teaching staff and students. Most recent data regarding the results of activity of the

Distance Learning Centre (DLC) are as follows: The University of Silesia e-learning platforms, supported by DLC, offer students more than 8000 hours of effective work on the 12 faculty platforms as well as other specific e-learning platforms. (Promotion Video, prepared by DLC for DLCC2013, 2013).

- Project “UNIVERSITY AS A PARTNER OF THE KNOWLEDGE ECONOMY” UPGOW (Smyrnova-Trybulska et al. 2009, 2010). The general goal of the project is the spreading of education within society at every stage of learning as well as increasing the quality of educational services and their stronger linking to the requirements of the modern economy. The project includes more than 40 reviewed open e-courses on various topics in different fields of study.

- University Television (TV-UŚ, <http://telewizja.us.edu.pl/>). TV UŚ broadcasts and publishes a range of materials covering University news and events, provides promotion and information, current issues and campaigns. TV UŚ and DLC UŚ also run online broadcasts (Promotion Video, prepared by DLC for DLCC2013, 2013);

- Internationalization of research and education is one of the priority directions of development of the University which collaborates with over 300 higher education institutions from all over the world and actively participates in EU-funded projects within the Lifelong Learning Programme (Erasmus - the most successful student and staff exchange programme in the world) and Framework Programmes (as partner and co-ordinator), for example PEOPLE MARIE CURIE ACTIONS International Research Staff Exchange Scheme (IRSES, IRNet Project);

- Broad offering of postgraduate studies (<http://kandydat.us.edu.pl/us-boxes/11>)

Other important initiatives in the area of using e-learning at the US for developing of innovations for education, science, research, infrastructure, lifelong learning include:

- Decree No. 66/2012 of 3 July 2012 by Rector of the University of Silesia on the principles of teaching classes at the university with methods and techniques of distance education. (<http://bip.us.edu.pl/zarzadzenie-nr-662012>). In particular, this document, formally allows one to teach up to 60% of classes in the remote mode.

- The Document “*University of Silesia in Katowice — Development Strategy 2012-2020*”(http://bip.us.edu.pl/sites/bip.us.edu.pl/files/strategia20130627_eng.pdf), in which such important aims are mentioned: 2.3.3.5. Increase in the number of e-learning courses, and greater activity in distance teaching; 2.3.4.3. Organisation of lifelong learning courses and trainings – also in the form of e-learning in Polish and English – in the use of electronic databases for students, doctoral candidates and employees. Using and developing modern computer and information technologies for more individualised education in the form of e-learning and blended learning.

- *Broad agreement on Digital Skills in Poland - Declaration CRASP* (<http://www.us.edu.pl/szerokie-porozumienie-na-rzecz-umiejetnosci-cyfrowych-w-polsce-deklaracja-krasp>), and several important initiatives in area of developing

Digital Skills such as conferences, postgraduate studies, new specializations, projects at the *University of Silesia*.

2.3. New proposals of Postgraduate studies and specializations in the context of New Digital Agenda

The postgraduate studies called “Multimedia Application and E-learning Teacher” will be developed on the basis of current postgraduate studies “E-learning in the teachers’ profession” and on the basis of results of a new Project B2.2. entitled “Development of a set of national professional competence standards required by employers”, which concerns the development of 300 standards of professional competence. This project is run by Doradca Consultants Sp. z o.o., Institute for Sustainable Technologies - National Research, IPiSS WYG International, ŁCDNiKP, and is particularly important and necessary. As part of the project, qualification standards will be developed for such contemporary innovative and necessary professions as "Multimedia Application Teacher", "Distance Learning Teacher", "On-line Examiner". The author of the article is involved in the project as a subject matter expert and in this paper will present concepts relating to the development of qualification standards for the new profession of Multimedia Application Teacher. Europe’s future sustainable growth and competitiveness depends to a large extent on its ability to embrace the digital transformation in all its complexity. Information and communication technology (ICT) is increasingly impacting all segments of society and the economy. The Digital Agenda for Europe 2013-2014 (<https://ec.europa.eu/digital-agenda/en/news/digital-do-list-new-digital-priorities-2013-2014>) analyses and describes in particular 5) Entrepreneurship and digital jobs and skills and in this documents has stressed, that “The Commission signals that by 2015 700,000 to 1 million ICT jobs will not be filled in Europe, due to lack of skilled personnel. Additional action is needed to boost the overall number and the employability and mobility of ICT experts. Therefore the Commission will launch a ‘Grand Coalition on Digital Skills and Jobs’.”

That is why postgraduate studies called “Multimedia Application and E-Learning Teacher”, described in this article, are particularly important and necessary in the context of global Digital Agenda for Europe 2013-2014 and in the context of successful decisions concerning teacher training and other specialists’ training in the area of multimedia application, ICT and e-learning in Poland, and generally in the area of digital technology. A more detailed concept of Postgraduate studies was described in the author's other paper (Smyrnova-Trybulska 2013)

3. SOME RESEARCH OUTCOMES – RESULTS OF STUDENTS SURVEY IN THE AREA OF E-LEARNING

One of first and the most actively functioning of distance learning platforms on US is the platform of Faculty of Ethnology and Sciences of Education in Cieszyn. The faculty e-learning platform contains a lot of interesting courses supporting learning.

Aims, functions and examples of distance learning platform for the Faculty of Ethnology and Sciences of Education in University of Silesia were more fully described in the previous articles of the author (Smyrnova-Trybulska 2009, 2010a), 2010b), 2012). Its key objectives are to:

1. Provide support for teaching programme courses, run in the full-time and part-time mode (hybrid learning),
2. Prepare future teachers to take advantage of distance learning – to use e-learning in own profession and to perform the role of a tutor,
3. Provide assistance with scientific research and pedagogical experiments carried out by department staff, graduate students as well as post-graduate students,
4. Foster international cooperation, in particular, through international projects;
5. Provide non-formal and informal distance education in ICT area, and other subjects area for future and current teachers, other.

In the context of the subject of this article, I would like to provide results of surveys conducted at the end of the second semester after the completion of 4 e-learning courses during this semester, within the framework of the subject of Information Technology by students of pedagogy (Figure 1-4). These courses were supported by full-time education which the prospective teachers attended during the realization of Information Technology subject (total 30 hours). 15 hours were taught in in physical presence form (conversational classes) and 15 hours in remote form (lectures).

The surveys were reflective in nature while the evaluation related to the students' opinions about the courses and their assessment in terms of substantive, methodological, technological, organizational aspects, and e-learning as technology, methods and forms of learning. The students expressed their preferences regarding the classes mode (traditional, presence, on-line via Internet, other) as well as the reasons for their individual choices. The survey questions were answered by 49 first degree full-time students. The survey was anonymous and was accessed in the close distance course on the Distance learning platform. This paper includes answers to several questions. In the author's next publication, all results and their analysis will be provided.

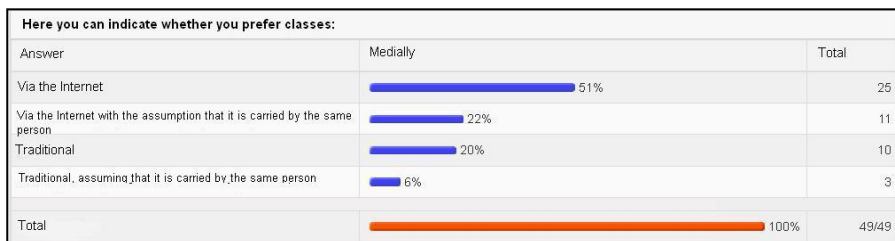


Figure 1. Survey outcomes: Students' preferences regarding mode of classes

Source: Own work

One of the questions was: *What are the reasons for this choice?* Some variants of an answer. Option 1 “*Classes via the Internet*” was selected by 51% of students. Examples of response versions to justify the choice made are as follows:

- *Possibility of work at home;*
- *More time to answer relating to a specific module;*
- *The reason is easier and quick access to information;*
- *Not normalized, unlimited learning time;*
- *The possibility of studying the material at any time;*
- *It facilitates and shortens the time to commute to the university;*
- *You can always refer to the module;*
- *Because you can do these activities at any time individually;*
- *Through the internet I can work in my spare time, whether during the day or at night. You can work from home;*
- *great convenience, comfort, the ability to perform the tasks at appropriate time for me, easy access to the materials;*
- *due to 100 % availability at all times of the materials and testing;*
- *There is no need to commute to classes at the university, you can spend as much time as you like and do it at any time;*
- *It is a great help;*
- *You can do it in your free time.*

Next question concerned the reasons for selecting the option to answer: “Via the Internet with the assumption that it is taught by the same person”. This Option was selected by 22% of students. Versions of responses to justify the choice made include:

- *It is logical;*
- *Since it is possible to consult face-to-face and availability of didactic information at home;*
- *Internet makes it easy to work on exercises and lectures;*
- *Freedom of TIME, other.*

Third option for selecting was: “*Traditional*”. Option 3 was selected by 20% of students. Examples of response versions to justify the choice made are as follows:

- *I've grown used to this ;*
- *If you have problems you can immediately seek explanations;*
- *The traditional form promotes regularity and accuracy;*
- *Other*

Fourth option for selecting was: “Traditional, assuming that it is taught by the same person”. Option 4 was selected by 6% of students. Examples of response versions to justify the choice made are as follows:

- *I prefer traditional classes because I can then immediately consult the teacher about problems ... I have contact with her/him directly and she/he can help me solve problems ... ;*
- *The teacher can show me how to do a specific task, which I cannot do at home. In addition, traditional activities are more fair and you can just learn more during such classes;*
- *Because I prefer traditional classes than by the Internet.*

Of course, the results of the survey will be analysed even further, but already at this moment you will find that over 73 % (almost three quarters) of the students prefer classes on-line and it motivates us to continue to actively implement this form of teaching, of course taking into account all of the students’ requirements and their suggestions for improvement of this type of classes and educational activities.

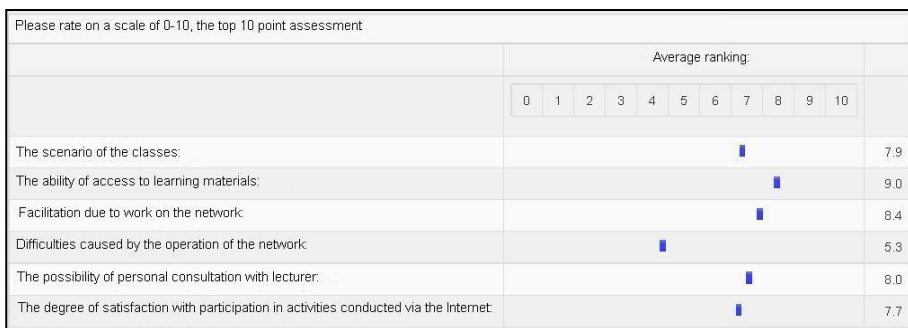


Figure 2. Students' evaluation of distance learning and results of their own participation in distance courses

Source: Own work

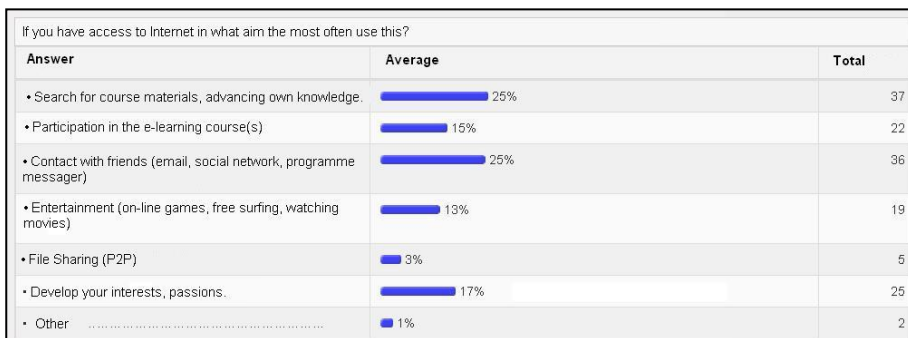


Figure 3. Students' opinion about the purposes for which they most often use the Internet

Source: Own work



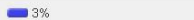


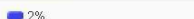
| Looking for interesting materials on the Internet you use most often with: | | |
|--|---|-------|
| Answer | Average | Total |
| • Search engines such as Google |  44% | 40 |
| • Wikipedia |  27% | 24 |
| • Bibliographic schedules |  3% | 3 |
| • Links contained on other sites |  6% | 5 |
| • Proven reliable web-sites |  16% | 16 |
| • Other |  2% | 2 |

Figure 4. Students' opinion about ways in which they most often look for interesting materials on the Internet

Source: Own work

CONCLUSION

In this article I have described and presented an analysis of existing formal national and international documents in the area of lifelong learning and use of e-learning to prepare professionals to function in the knowledge society, their years of experience regardless of the number of still existing problems and challenges convince the users that it is difficult to find alternative education to distance education in today's rapidly growing knowledge-based society, which requires trained personnel, quick update of knowledge and skills as well as expansion and upgrade of their skills.

In this context we can stress that not only formal education but also non-formal and informal education will be of crucial importance for lifelong learning.

To sum up one should say that first of all international cooperation, joint projects, exchange of experience in Europe and the world in theoretical and practical aspects of distance learning make it possible to create an efficient, optimal strategy for the implementation of e-learning and continuous improvement and adaptation to one's needs.

One of the such projects, entitled "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", will be delivered by ten partners from 10 universities (in particular, by the University of Silesia) and 9 countries (the project in the Seventh Framework Programme funding scheme Marie Curie International Research Staff Exchange Scheme) in 2014-2017.

REFERENCES

Broad agreement on Digital Skills in Poland - Declaration CRASP available at <http://www.us.edu.pl/szerokie-porozumienie-na-rzecz-umiejetnosci-cyfrowych-w-polsce-deklaracja-krasp> (accessed on 13 September 2013)

- Buckingham Shum, S., & Ferguson, R., 2012: *Social Learning Analytics*. Educational Technology & Society, 15 (3), 3–26.
- Bugaychuk K., 2013: *Formal, non-formal and informal e-learning: the nature, value, perspective* Proceedings of the twentieth anniversary conference of representatives of regional research and education networks RELARN-2013 (June 1-6, 2013, St. Petersburg). - St. Petersburg, 2013, pp. 114-121, available at <http://www.relarn.ru/conf/index.html> (accessed on 25 August 2013)
- Central Asia. Sub-regional report on the mid-term evaluation to achieve the goals of Education for All (EFA)* available at http://www.unesco.kz/publications/ed/CA_MDA_Report_ru.pdf (accessed on 25 August 2013)
- COUNCIL RECOMMENDATION of 20 December 2012 on the validation of non-formal and informal learning Official Journal of the European Union (2012/C 398/01)
- Declaration of the European Ministers of Vocational Education and Training, and the European Commission*, convened in Copenhagen on 29 and 30 November 2002, on enhanced European cooperation in vocational education and training “The Copenhagen Declaration” available at http://ec.europa.eu/education/pdf/doc125_en.pdf (accessed on 25 August 2013)
- Decree No. 66/2012 dated 2012-07-03 Rector of the University of Silesia in the principles of the Silesian University of classes with methods and techniques of distance education* available at <http://bip.us.edu.pl/zarzadzenie-nr-662012> (accessed on 10 September 2013)
- Documents “University of Silesia in Katowice — Development Strategy 2012-2020”* available at http://bip.us.edu.pl/sites/bip.us.edu.pl/files/strategia20130627_eng.pdf (accessed on 14 September 2013)
- eEurope 2002 An Information Society For All Action Plan* prepared by the Council and the European Commission for the Feira European Council, 19-20 June 2000, Brussels
- E-learning for the workplace. Creating Canada’s Lifelong Learners* available, Canada, 2001 at http://openedpractices.org/files/e-learning_for_the_workplace.pdf (accessed on 25 August 2013)
- European Inventory — Validation of non-formal and informal learning* available at <http://www.uk.ecorys.com/europeaninventory/> (accessed on 25 August 2013)
- European Inventory on Validation of non-formal and informal learning A Final Report to DG Education & Culture of the European Commission* Manuel Souto Otero, Andrew McCoshan and Kerstin Junge (eds.) 2005 available at http://www.uk.ecorys.com/europeaninventory/publications/inventory/european_inventory_2005_final_report.pdf (accessed on 25 August 2013)

- G20 Leaders' Declaration*, September 6, 2013, St Petersburg, available at <http://www.g20.utoronto.ca/2013/2013-0906-declaration.html> (accessed on 9 September 2013)
- Il'chenko O., 2010: *Trends in the development of European education in the 21st century* In: Conference Proceedings, 27 September-1 October Nizhniy Novgorod – Uglich, June 2010, pp. 277-279 available at http://www.relarn.ru/conf/conf2010/list_tez.pdf (accessed on 25 August 2013)
- Report from the Education Council to the European Council "The concrete future objectives of education and training systems"* 5980/01 JW/ms 1 DG J EN COUNCIL OF THE EUROPEAN UNION available at http://ec.europa.eu/education/policies/2010/doc/rep_fut_obj_en.pdf (accessed on 25 August 2013)
- Report: Lifelong learning - Requirements and Challenges*, Report of a seminar with the participation of representatives of the CIS countries and Mongolia, 2002
- Smyrnova-Trybulska E., 2009: *Use of the Distance Learning Platform of The Faculty of Ethnology and Sciences of Education in Cieszyn (University of Silesia) in teacher training*, In: Theoretical and Practical Aspects of Distance Learning. Collection of Scholarly Papers. Scientific editor: Eugenia Smyrnova-Trybulska. University of Silesia in Katowice, Cieszyn, 2009, pp.198-210, ISBN: 978-83-925281-4-2
- Smyrnova-Trybulska E., 2010: *On Experience in the Delivery of E-learning-Assisted Lifelong Learning* In: M. Drlik, J. Kapusta, P. Svec, DIVAI 2010 – Distance Learning in Applied Informatics. Conference Proceedings. Constantine the Philosopher University in Nitra, Faculty of Natural Sciences, Department of Informatics, Editors Nitra, pp. 277-284, ISBN: 978-80-8094-691-3
- Smyrnova-Trybulska E., 2010: *Use of Distance Learning in the Training of Professionals in the Knowledge Society* In: Use of E-learning in the Training of Professionals in the Knowledge Society. Monograph. Scientific Editor: E.Smyrnova-Trybulska, University of Silesia, Cieszyn 2010, pp. 137-161, ISBN: 978-83-60071-30-4
- Smyrnova-Trybulska E., 2012: *Information and Educational Environment of the Faculty of Ethnology and Sciences of Education on the Internet* In: ICT for Competitiveness 2012, Silesian University in Opava, School of Business Administration in Karvina, 2012 pp. 236-243, ISBN: 978-80-7248-731-8
- Smyrnova-Trybulska E., 2013: *About Conception of Postgraduate Studies "Multimedia Application and E-learning Teacher"* In: Learning while we are connected, Volume 2: Practice Papers, Ed.: N. Reynolds, M. Webb, V. Dagiene, M.M.Sysło WCCE2013 10th IFIF World Conference on Computers in Education, Toruń, Poland, July 1-7, 2013, pp. 45-51, ISBN 978-83-231-3093-2

- Strategy of Information Society Development in Poland for the years 2007-2013* available at http://www.piit.org.pl/_gAllery/18/66/1866/7436.pdf (accessed on 14 September 2013)
- The development of new approaches to validation of non-formal and informal learning.* In the *Communication on Lifelong Learning* (November 2001) *The EC (2001) Communication on Lifelong Learning: formal, non-formal and informal learning* available at http://ec.europa.eu/education/policies/2010/doc/non-formal-and-informal-learning_en.pdf (accessed on 25 August 2013)
- The Digital Agenda for Europe 2013-2014* available at <https://ec.europa.eu/digital-agenda/en/news/digital-do-list-new-digital-priorities-2013-2014> (accessed on 25 April 2013)
- The learning continuity: European inventory on validating non-formal and informal learning – National policies and practices in validating non-formal and informal learning* Danielle Colardyn and Jens Bjornavold (ed.) available at http://www.uk.ecorys.com/europeaninventory/publications/inventory/learning_continuity_eu_inv_en.pdf (accessed on 25 August 2013)
- The White Paper on Youth policies* (2002) Commission of the European Communities Brussels, 21.11.2001 Com(2001) 681 Final European Commission White Paper a New Impetus For European Youth available at http://ec.europa.eu/youth/documents/publications/whitepaper_en.pdf (accessed on 25 August 2013)
- Web-page about Non formal learning in the Wikipedia* available at http://en.wikipedia.org/wiki/Nonformal_learning (accessed on 27 August 2013)
- Web-site of European Commission concerning Education & training and Lifelong Learning Policy* available at http://ec.europa.eu/education/lifelong-learning-policy/informal_en.htm (accessed on 27 August 2013)
- White Paper on Education and Training Teaching and Learning Towards the Learning Society* European Commission COM(95) 590, November 1995 available at <http://ec.europa.eu/white-papers/> (accessed on 25 August 2013)