



World Scientific News

WSN 89 (2017) 146-163

EISSN 2392-2192

The case study of Erasmus+ programme. Project's influence on participants' digital competence. Youth, multilingualism and work perspectives in Europe 2015-2017

Artur Baranowski

Faculty of Biology and Environmental Sciences, Cardinal Stephan Wyszyński University,
1/3 Wyóćickiego Str., bud. 23 r. 409, 01-938 Warsaw, Poland

E-mail address: a.baranowski@uksw.edu.pl

ABSTRACT

This study investigates the influence of the 2 year Erasmus+ project called “Youth, multilingualism and work perspectives in Europe” on youngsters in the area of digital competence. It took place in 2015-2017 and was provided by 6 countries. During the project the set of questionnaires were provided and filled by 124 respondents, 28 teachers and 96 students. The project implemented a wide array of applications, programmes and gave a chance to use some of the devices. Considering the fact that 47% of EU population has insufficient digital skills and observing the growing deficit of ICT professional skills, there is real approach for education to fulfill the market demand and supply students generations with ICT skills. In the project the objective of enrichment digital competence was reached but the quality level depended on personal engagement, the diverse number of products which were done with the use of diverse sort of apps. But considering the total level of tasks fulfilment developing digital competence is definitely satisfactory. Additional information about the implementation of ICT into the international meetings are Europass Mobility documents. Summarizing the project brought the following proposed assumptions. Firstly, teachers and students made a significant progress in digital competence in the project. Secondly, all participants consider digital competence as a very useful and demanding skill on the labour market, education and life. The findings are enriched with recommendation for institutions responsible for education, because their policies can play a major role to support all actions needed to bring about a digital education system and increase the number of digitally supportive schools and digitally confident and supportive teachers

and students. One of them is the persistence of implementation of ICT in the context of projects and further teaching and learning.

Keywords: digital competence, ICT, Erasmus+, education

1. INTRODUCTION

In all European countries, there is a great interest in teaching digital competences.^{1,2} Educational systems there have made significant changes and many of these changes are related to the development of educational systems based on competencies and training, but also on implementation of ICT in process of teaching and learning [1]. In this context of ICT education vary across countries, as do the influences of factors at all levels mainly because of socioeconomic background factors but also when any resource limitations was hindering the use of ICT.³ Digital competence beside the others is one of the eight key competence and refers to the confident and critical usage of the full range of digital technologies.⁴ It aims to support critical thinking, creativity, and innovation. This is also rapidly changing context in comparison of the researches done in the past [5] and lastly^{5,6} by IEA. According to one of the reviews digital competence and digital literacy are closely related but not identical [6] although in this work these terms will be used interchangeably. According to the Digital Agenda Scoreboard⁷ 2014, 40% of the EU population has an insufficient level of digital competence who do not use the Internet at all. And 42% of unemployed people are those who have no digital skills. This competence also enables students in other competences like science, language skills, critical thinking or communication. Generally being digitally competent is a wide definition but we could assume it means being confident and safe for many purposes such as learning, working, applying for a job, shopping or entertainment. What is more a new development is ahead of teachers which will involve them in creating digital resources to empower and facilitate learners with ICT skills, because of the demand of job market and the direction of world development.⁸ In this context the latest international study through OECD countries⁹ revealed in TALIS research that trainers and teachers need

¹ European Commission. 2006. Recommendation of the European Parliament and of the Council. On key competences for lifelong learning 18 December 2006. (2006/962/EC), <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32006H0962>

² A. Ferrari, Y. Punie, B. Brecko, DIGCOMP: A Framework for Developing and Understanding Digital Competence in Europe. 2013

³ J. Fraillon, J. Ainley, W. Schulz, T. Friedman, E. Gebhardt, Preparing for Life in a Digital Age. The IEA International Computer and Information Literacy Study International Report (2014) Cham: Wydawnictwo Springer.

⁴ European Commission 2006

⁵ P. Wastiau, R. Blamire, C. Kearney, V. Quittre, E. Van de Gear, C. Monseur, The use of ICT in Education: a survey of schools in Europe. 2013.

⁶ J. Fraillon

⁷ European Commission. European Journal of Education. Part 1. Digital inclusion and skills. Digital Agenda Scoreboard 2014.

⁸ European Commission. 2006.

⁹ European Commission. The Teaching and Learning International Survey (TALIS) 2013. Main findings from the survey and implications for education and training policies in Europe.

more development of ICT skills for teaching and only 16% of them use technologies in the workplace. Teacher's digital competence is the area of a constant lack of professional development particularly when it is related to pedagogical issues. To upskill teachers, one of the wide European initiative is eTwinning portal what TALIS report states. It benefits professional collaboration, adoption of new practices, applications and enhances self-efficacy of teachers. Of course thanks to pupils participation, eTwinning develops students digital competences, too. Many educators hope that education is the weapon to solve a problem with teachers and students digital skills, but it is still the future getting high digital competence at schools, what some investigations show up.¹⁰

This study is described in details in the final report¹¹ of the programme and investigates the influence of the 2 year Erasmus+ project called "Youth, multilingualism and work perspectives in Europe" on youngsters in the area of digital competence. The project took place in 2015-2017 and was provided by 6 countries: Spain (coordinator), Bulgaria, Greece, Romania, Lithuania and Poland. In a context with a rising unemployment among young people the schools have an important role to play. Young people need to be flexible to a new labour market with quickly changeable skills. Multilingualism, digital competence, e-skills and knowledge of the European labour market are essential for youth and they were a core of the project and partly this paper.

Measuring the digital competence throughout teenagers taking part in the Erasmus+ project is very important for at least few reasons. First of all, governmental and European founders expect the positive effects of the projects and funds passed to schools in order to develop and prepare young citizens to modern world. Secondly, teachers and principals expect their efforts will bring real skills to their pupils. And finally, the students also wish to enrich their general ICT competence. Additional value of the project is the positive impact for teachers gained thanks to sharing their knowledge and learning experience through new applications and other rapidly developing software.

Students are born in the Web era and tend to get information from the Internet in all devices [3]. Unfortunately, other researches indicate that some of the teachers support the view to not integrate the use of ICT in the teaching-learning process, what means that teachers see no relationship between using ICT and social and civic, linguistic, cultural and artistic, and other science competences [2]. Project's partnership worked to modernize the schools and adapted them to new ways of teaching and learning based on information on the internet, but not only as users but also creators. For example, it was about cultivating the notion of European citizenship through the study of labour possibilities in Europe. The students were involved into activities that let them to acquire knowledge on their labour market and the skills they needed to find work in Europe. They developed skills in ICT, but also in language learning and speaking in public by presenting their tasks in English and sharing their materials through a twinspace platform, many social and personal webs, but also through eTwinning project prized with a Quality Label.

Simultaneously, teachers prepared many CLIL lessons about many areas: history, science, technology, robotics, natural resources and art, strengthening digital competence of

¹⁰ A. Baranowski, eConferences.eu International Scientific Conference „Humanity Perspectives – challenges of 21 century” 31st Mar - 4th Apr 2015. Cloud - is it the fact or the future for Polish Education at Lower Secondary School level in the light of European comparison and general view of ICT T&L.

¹¹ A. Baranowski, 2017. Evaluation of Students' digital competence and ICT in the Erasmus+ project. Final Report. https://issuu.com/artbaranowski/docs/evaluation_of_students_digital_comp

their students. They jointly produced products based on ICT like: e-books with CLIL lessons, web pages, blogs, videos, interviews, presentations with the study of the labour market in Europe and all other products which were made by students. Throughout the two years, there were meetings in the different countries which involved students presenting their tasks and products also based on ICT and through it. Regular evaluation of different areas of the project brought to many conclusions and findings in digital context and through it, too. This skill was included in array of our objectives of the project which were:

- encourage students in key skills to enter the workplace, like developing digital skills and foreign language competence,
- promote the use of Content and Language Integrated Learning (CLIL) in schools,
- analyse the European labour market; which skill gaps are needed, find out why so many graduate people are unemployed; study the possibilities to work abroad,
- promote the participation of socially disadvantaged students in the schools' activities; give them access to ICTs,
- raise awareness the students about the importance of education / training in labour world,
- enhance learning and using foreign languages as means necessary for integration into the European labor market,
- emphasize the importance of ICTs in the job search process,
- rise the awareness of the importance of motivational strategies and “coaching” both to promote academic excellence and to achieve a successful job profile.

2. MATERIALS AND METHODS

Based on the project's idea and partners agreement signed during the first transnational meeting in Spain in October 2015 the teachers and students' digital competence were measured and evaluated at the end of the project taking into account the progress they made after one year of the project and comparing with the level of digital students' skills at the beginning of the project. For this, we chose a non-experimental descriptive type design using survey methodology. To evaluate the progress and the impact of the Erasmus+ project teachers could also use other tools such as personal interviews or presentations etc. But the most important measurable qualitative and quantitative method was collecting data through the online questionnaires which have been validated and compared with ones used in similar investigations.¹² After the first year of the project a questionnaire was provided through chosen students of all partners in different numbers as well as teachers. In order to collect the richest data in the final evaluation about digital and ICT issues the pre-questionnaire was set and send in January 2017 to all partners with the request to fill in. The set of questions in the poll are presented in a prepared questionnaires available in the final report.¹³ They were concerned with the apps used in the project and the basic information about the size of the groups. The next step was to prepare a final post-test after second year of the project as a questionnaire based also on the knowledge and experience gained after gathering information

¹² A. Ferrari, Y. Punie, B. Brecko, DIGCOMP: A Framework for Developing and Understanding Digital Competence in Europe. 2013

¹³ A. Baranowski, 2017. Evaluation of Students' digital competence and ICT in the Erasmus+ project. Final Report. https://issuu.com/artbaranowski/docs/evaluation_of_students_digital_comp

from the post-test after the first year of the project. All details of the questionnaires are presented in the final digital competence report of the project.¹⁴

3. DATA COLLECTED AND RESULTS

Some of the graphs from the three questionnaires are shown indicating the progress and final results made by students and teachers. The other detailed information is available through linked documents in the final report.¹⁵ The figures are labeled as the questions in the polls with the given number.

Post FIRST YEAR ICT Questionnaire

This poll was filled by 54 people, 12 teachers and 42 students from all countries. The most frequently used applications and devices known before the project by 90% or more respondents were: a desktop computer, a laptop, a projector, a smartphone, a tablet, a camera, a video camera, facebook, skype, gmail, Microsoft Word and Powerpoint, google chrome, google translator, google maps and youtube. On the other side applications known thanks to Erasmus+ project were mentioned as at least by 30-40% of respondents and there were: hangout, google+, Twinspace, google documents, google slides, google forms, google sheets, blogger, prezi, canva, calameo, issuu, kahoot, duolingo, Europass Mobility. We took that number 30-40% because not every country used the same apps in the project, so the groups were diversified.

In the next question respondents matched what applications they used in the first year of the project. It is seen that many online apps were used especially concerned with google software. The most frequently used at least by a half of the respondents were gmail (94%), FB (83%), prezi (79%), chrome (78%), youtube and google+ (76%), Google drive (72%), Google translator (70%), Microsoft Word (69%), Google documents (67%), Google Slides (57%), Europass (53%), Blogger and Google forms (50%).

The first year of the project revealed that also the most used devices more than 50 times per person were a smartphone, a PC and a laptop. The following slide shows how good the respondents are with devices or apps. They precised what did they make thanks to this tools, so are they experts or simply users. Students and teachers respond that they are (beside typical devices) good at google drive, google documents, google slides, google forms, google galleries, youtube and prezi. It means they made at least three products with these apps. Other frequently mentioned apps are blogger, google maps, google sheet and Europass Mobility. In the next question they also matched the portals they have an account on and they are google+, twinspace, gmail prezi and other google software. Less frequent are issuu, calameo, canva, picsart, kahoot, instaling and duolingo. This graph shows also quite big differences between respondents in used apps.

¹⁴ Ibid

¹⁵ Ibid

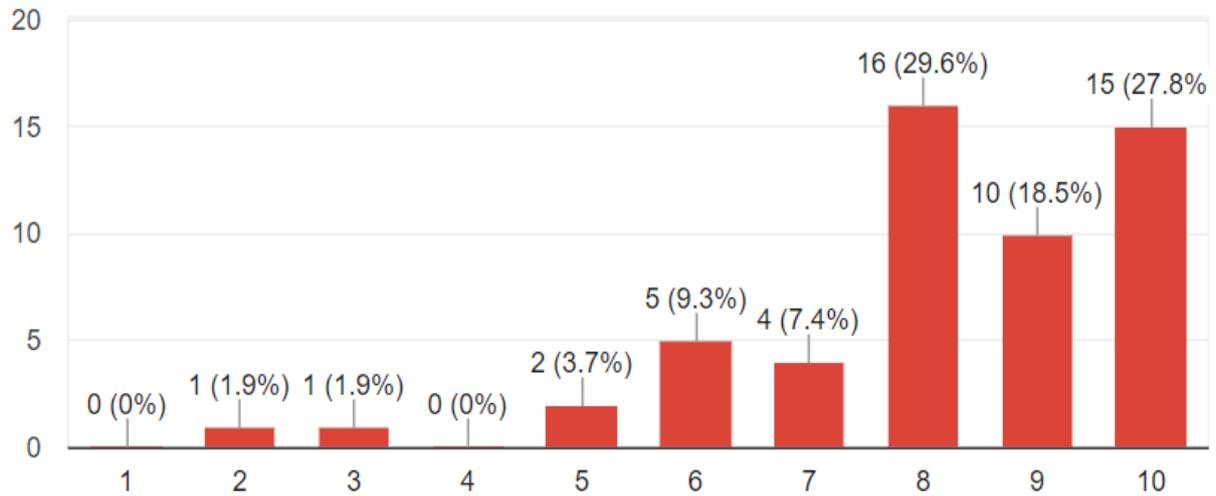


Figure 1. Have you improved your ICT skills thanks to a project and used apps? (Question No. 8)

The answers for the next questions shown in Figures 1-4 reveal that almost all (students and teachers) improved significantly digital competence thanks to a project (question 8). What is more they also improved their English skills mainly because of the fact that almost all of them are in English.

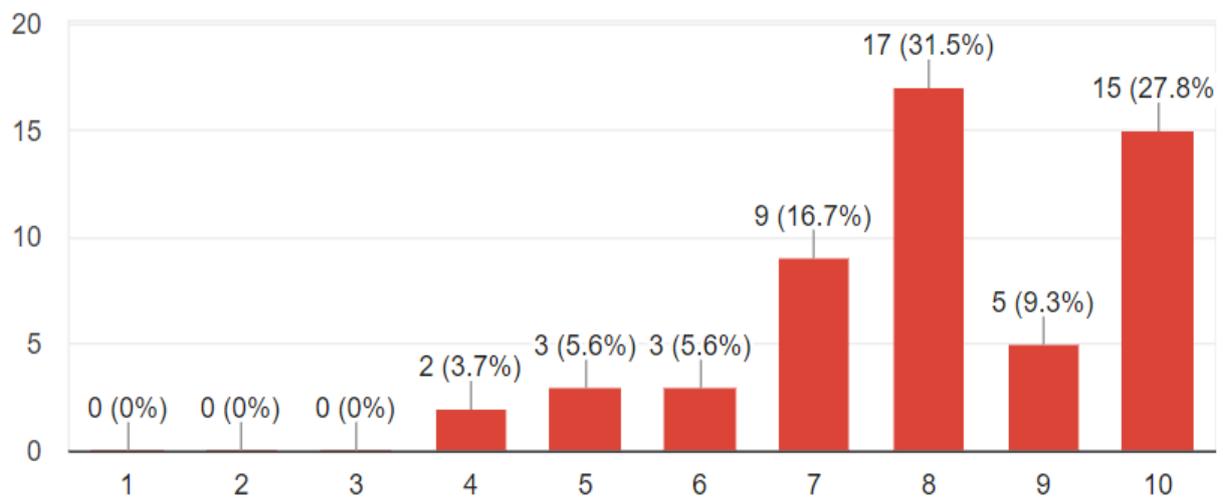


Figure 2. Have you improved your English language skills thanks to a project and used apps? (Question No. 9)

Respondents point out that computer information technology is important on the labour market (Figure 3) and they all will use it in their private and professional life.

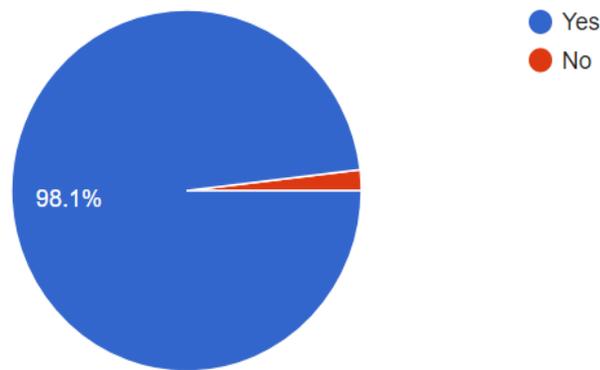


Figure 3. Do you think that Information Computer Technology (ICT) is important on the labour market? (Question No. 10)

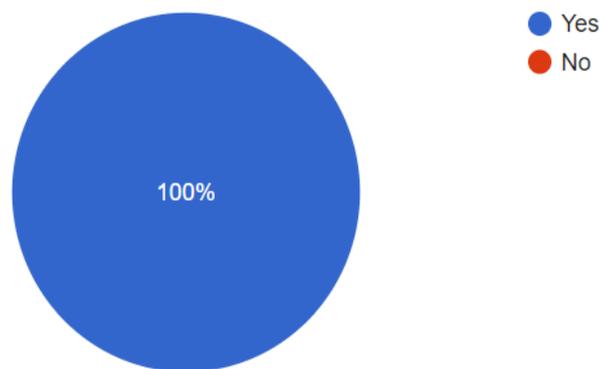


Figure 4. Do you think you will use known ICT in the project later on in your education and life? (Question No. 11)

Respondents also noted in question 12 that the most valuable 5 apps and they are gmail, facebook, google drive, youtube and prezi.

Pre-test ICT Questionnaire

This pre-questionnaire poll was filled by 39 people, 9 teachers and 30 students from all countries. It precises the number of teachers actively participating in the project and the results show the most common groups of teachers consisted of 1-5 or 6-10 (Figure 5).

In comparison the number of students in a group amounts mainly to 21-30 or 11-20 (Figure 6).

The aim of the last question was to collect all apps used in the project, what became a basis for the final post test investigating the acquired digital competence.

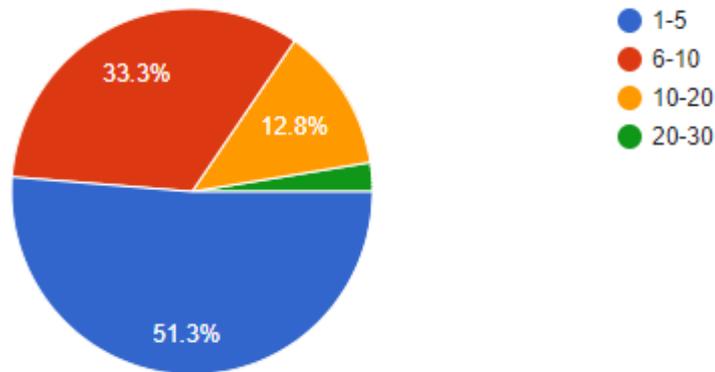


Figure 5. Number of teachers actively participating in the project (Question No. 3)

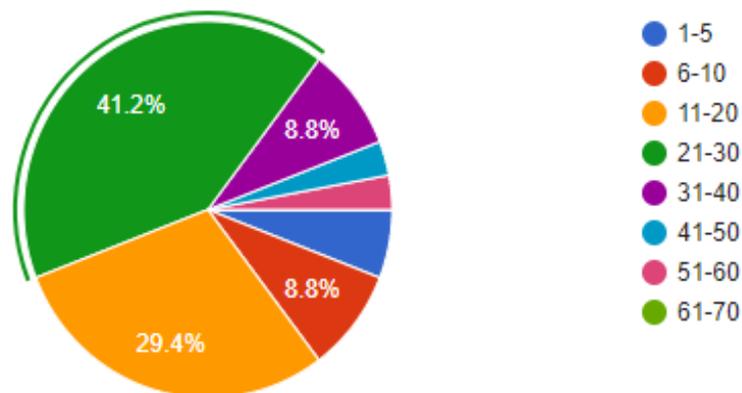


Figure 6. Number of students actively participating in the project (Question No. 4)

Post SECOND YEAR ICT Questionnaire

This poll was filled by 70 people, 16 teachers and 54 students from all countries. The most frequently used applications and devices known before the project by 90% or more respondents were: a desktop computer, a laptop, a projector, a smartphone, a tablet, a camera, a video camera, facebook, skype, gmail, Microsoft Word and Powerpoint, google chrome, google translator, google maps and youtube. On the other side applications known thanks to Erasmus+ project were mentioned as at least by 30-40% of respondents and there were: hangout, Linkedin, google+, Twinspace, google drive, google documents, google slides, google forms, google sheets, google photo galleries, blogger, prezi, Edu.hstry, canva, calameo, issuu, App Inventor, kahoot, duolingo, Europass Mobility. We took that number 30-40% because not every country used the same apps in the project, so the groups and students were diversified.

In the next question respondents matched what applications they used in the second year of the project. It is seen that many online apps were used especially those concerned with google software, but also Europass, Kahoot or Prezi. The most frequently used at least by a

half of the respondents were gmail (91%), youtube (84%), FB, prezi, google+ and chrome (83%), Microsoft Word (77%), Google translator (76%), Google drive & documents (74%), Europass (66%), Google Slides (63%), Kahoot (59%), Google galleries (53%), Google maps (51%), Blogger and Google forms (50%).

The second year of the project revealed that also the most used devices more than 50 times per person were a smartphone, a PC and a laptop. It shows also that the project did not give the chance to use widely a recording camera or interactive whiteboard, because only about 30% of respondents chose this answer. And less than 10% of them used these devices more than 50 times.

The next question 6 [2] shows how good the respondents are with devices or apps. They precised what did they make thanks to these tools, so are they experts or simply users. Great number of respondents (about 50%) point that they still do not feel sure with such equipment or they did not use them at all. They mention here a projector, a smartphone, a tablet, a camera, a video camera, an interactive whiteboard. Even some applications are pointed by more than 50% of people that they are just simple users or they did not use some apps in the project. They are facebook, hangout, skype, Twinspace, google maps, youtube, google photo galleries, google spreadsheet, google forms, blogger. Some apps are not known throughout more than 10-20% of people in the project. These apps are: Edu.hstry, canva, calameo, issuu, picsArt, Filmora, App Inventor, Logicator Picaxe, edmodo, instaling, babbel or duolingo. The graphs in question 6 presents also the use of offline Microsoft Office programmes as well as online similar apps. More than 50% of students used this programme and made at least few products.

In the next question 7¹⁶ respondents also matched the portals they have an account on and they are in spite of very popular once like facebook or skype they have and use also others like google+, twinspace, gmail and other google software or prezi. Less frequent are issuu, calameo, canva, picsart, kahoot, instaling and duolingo and this graph reveals also quite big differences between respondents in apps used by them.

The answers for the next question 8 (Figure 7) figures out that big number of students and teachers improved significantly digital competence while realizing a project. Almost 70% of them matched the 3 highest scores showing up that the influence of the project was significant.

The result and influence of the second year of the project was not so significant mainly because the known apps were used repeatedly but also teachers allowed participants to acquire confidence and make more products on the learnt apps. But still the matches of the three highest categories gather 55% of respondents.

What is more (Figure 9) thanks to improvement in general competencies in ICT content participants' English skills developed too. In three highest categories there is 79% of respondents.

Almost all respondents (Figure 10) point out that this digital competence is crucial in student's future and their position on the labour market. They also consider (Figure 11) this qualification will be important in their further education or simply the life.

¹⁶ A. Baranowski, 2017. Evaluation of Students' digital competence and ICT in the Erasmus+ project. Final Report. https://issuu.com/artbaranowski/docs/evaluation_of_students_digital_comp

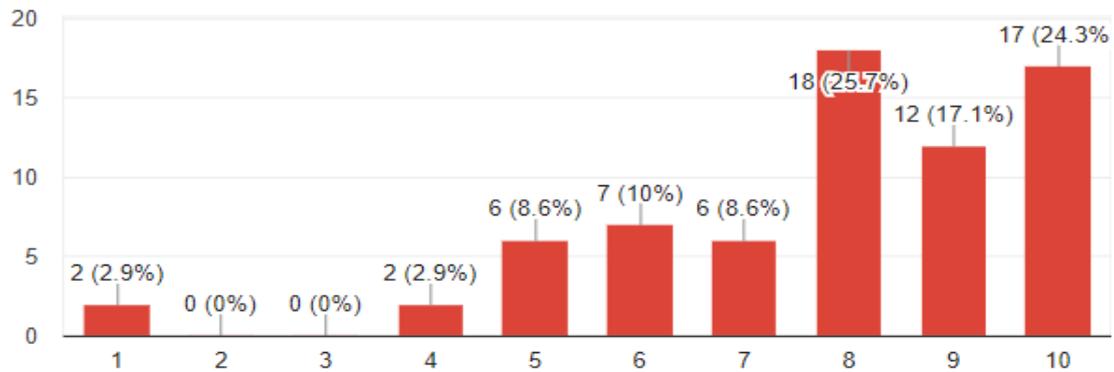


Figure 7. Have you improved your ICT skills thanks to a project and used apps? (Question No. 8)

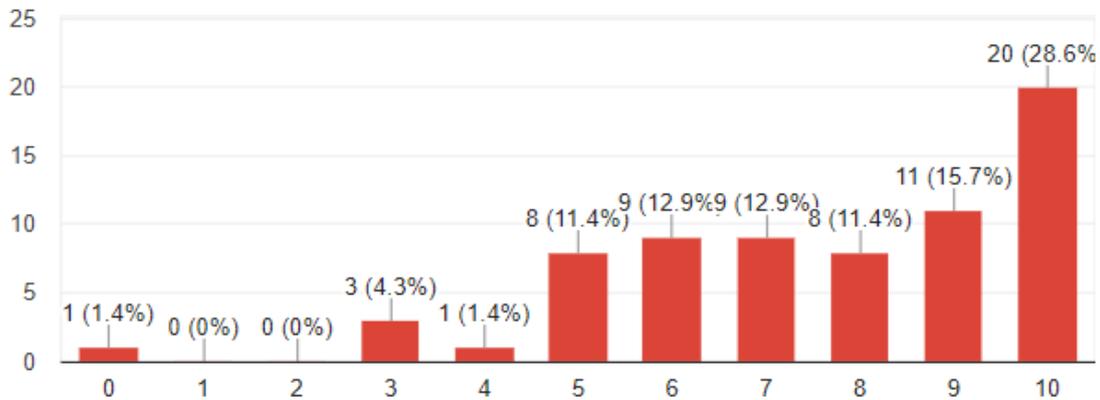


Figure 8. Have you improved your ICT skills thanks to a project and used apps in comparison to the first year of the project? (Question No. 8a)

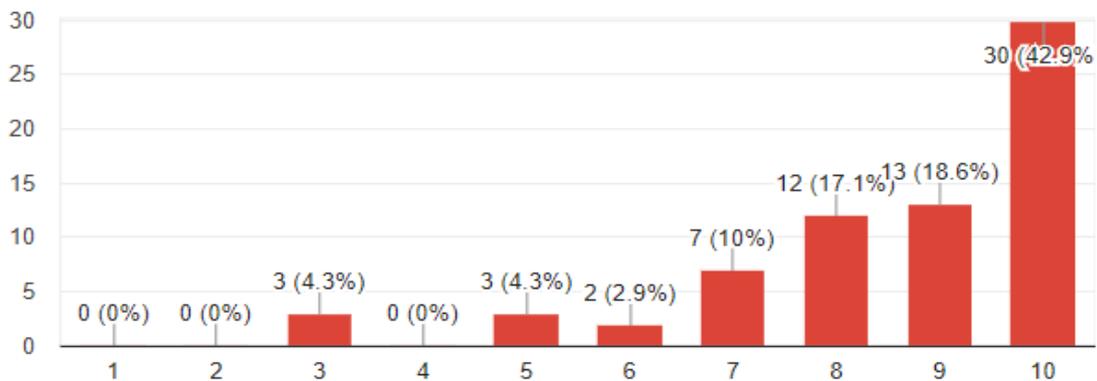


Figure 9. Have you improved your English language skills thanks to a project and used apps? (Question No. 9)

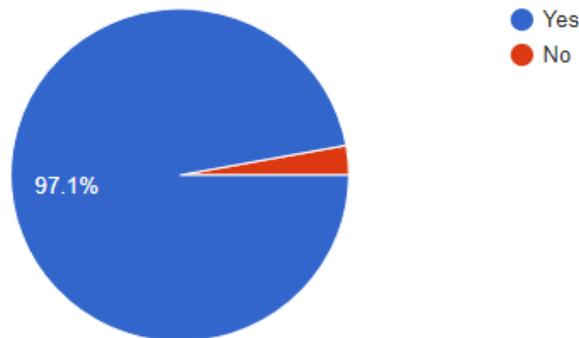


Figure 10. Do you think that Information Computer Technology (ICT) is important on the labour market? (Question No. 10).

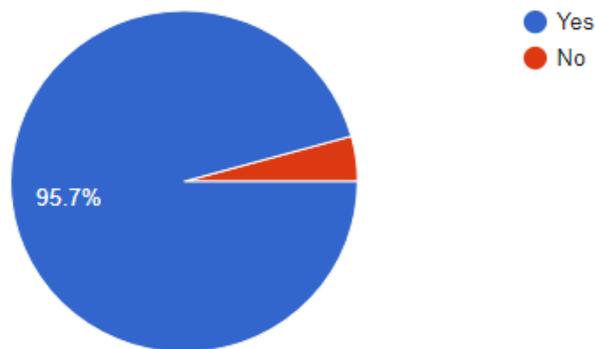


Figure 11. Do you think you will use known ICT in the project later on in your education and life? (Question No. 11).

The most 5 valuable apps were noted through more than 50% of respondents and they were gmail, facebook, youtube, prezi. The fifth one was pointed equally by more than 30% of respondents and the mentioned apps were: skype, Microsoft Word, google chrome, google drive and its documents.

Most partners (74%) certify that they have a web page (figure 12) or the facebook profile of the project (not personal) though a bit of smaller number publish their results (60%). The personal webpage/blog has got 46% of respondents and they publish and share their results and products through their individual media.

A quite long array of web pages where the results were published were specified and main official once are presented with the division to countries. To see the details look into a final report.¹⁷

¹⁷ A. Baranowski, 2017. Evaluation of Students' digital competence and ICT in the Erasmus+ project. Final Report. https://issuu.com/artbaranowski/docs/evaluation_of_students_digital_comp

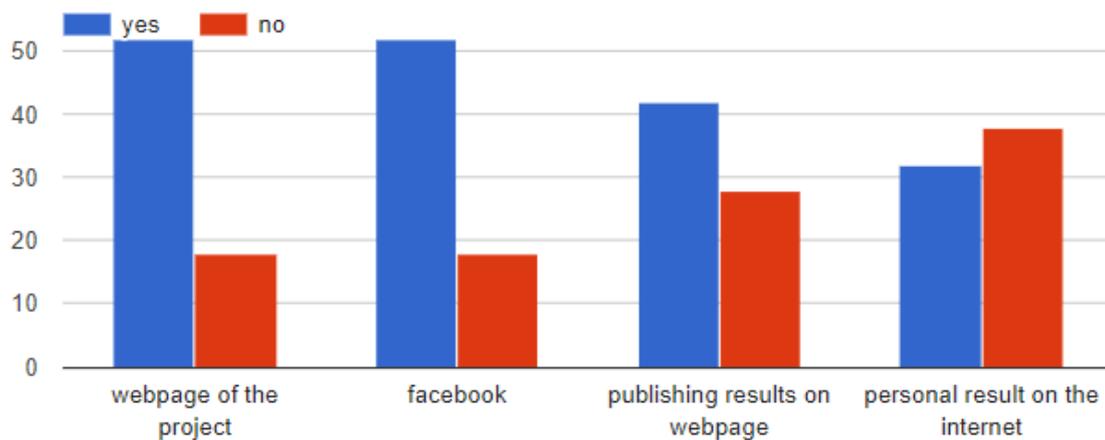


Figure 12. Has your school got a webpage of the project or Facebook? Or do you publish all activities on school's webpage? Or do you have any personal result on the internet? (Question No. 13)

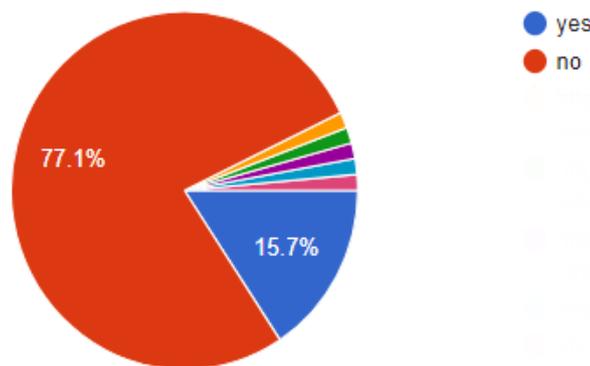


Figure 13. Have you got your own project's webpage? if yes paste the address (Question No. 14)

Figure 13 shows that the personal and individual web page or profile is possessed by only 16% of respondents. The examples of students web pages are placed in the final digital report.¹⁸

Next question (14a) shows up that to create students' own web page they needed to use a wide range of apps. The dominant role is played by facebook, blogger, gmail, google drive, youtube and prezi but other apps are used frequently too. But still 60% of students state that they did not have a personal webpage.¹⁹

Respondents also revealed that ICT was used very often during the meetings at schools as well as international appointments. Almost 3 quarters answered the use of ICT from 1 to 40 times and more than 10 times almost 50%. Though 13% of respondents stated the use of ICT

¹⁸ Ibid

¹⁹ Ibid

more than 40 times and up to 80, what means that during every meeting taking place averagely once a week and the differences between respondents are noticeable (Figure 14).

The use of different applications and enhancing digital competence was the matter of CLIL lessons and big prevalent number of them included it. Only 3% of respondents answered that CLIL lesson was provided without computer technologies (Figure 15).

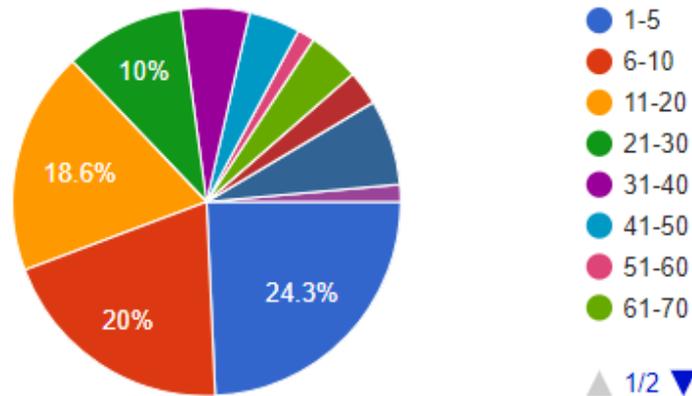


Figure 14. How many meetings have you had while you have been using ICT or Apps? (Question No. 15).

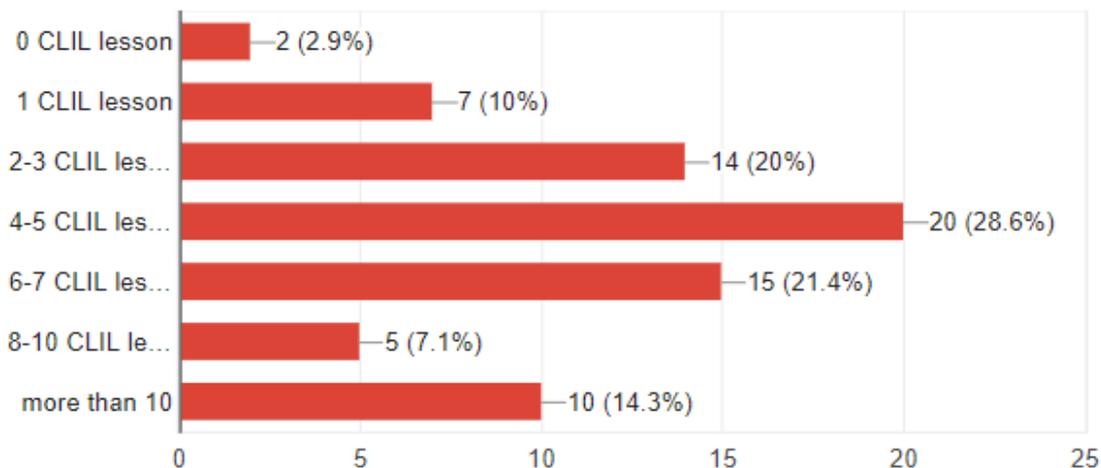


Figure 15. Did you use ICT or Apps during CLIL lessons at your school? (Question No. 16)

The number of products made with the use of ICT shows the Figure 16. More than the half of respondents carried out from 6 to 20 products, and the other 34% did more than even 100 products. Only 14% did less than 5 products.

The next Figure 17 reflects the satisfying quality of ICT and other devices at schools what was definitely crucial bringing participants towards the fulfilment project’s aims. The respondents express their need to improve digital competence in the next projects and almost 50% of them matched the highest 10 rank (Figure 18).

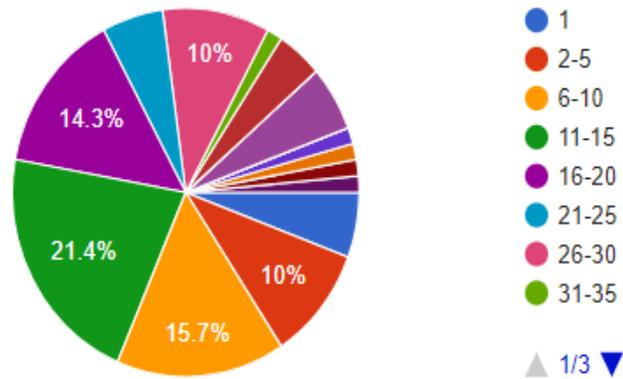


Figure 16. How many results / products did you make using ICT or Apps during the project? (Question No. 17)

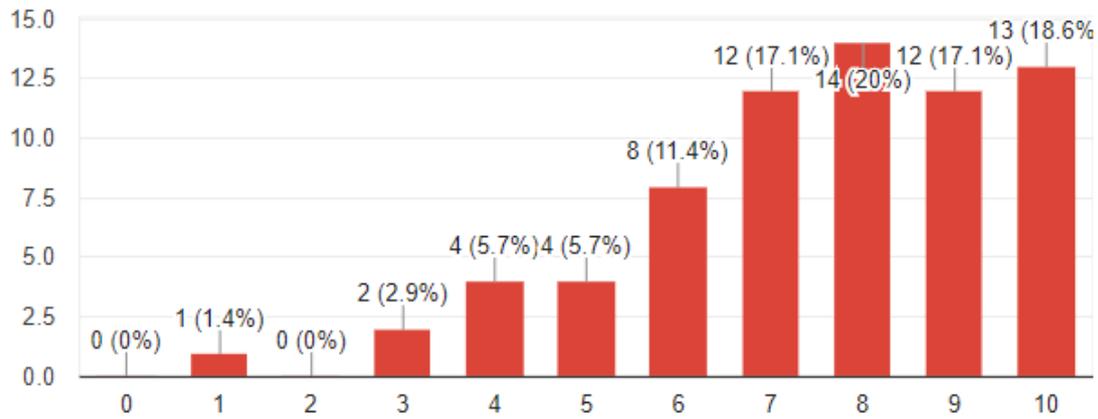


Figure 17. Did your school have good quality ICT and devices? (Question No. 18)

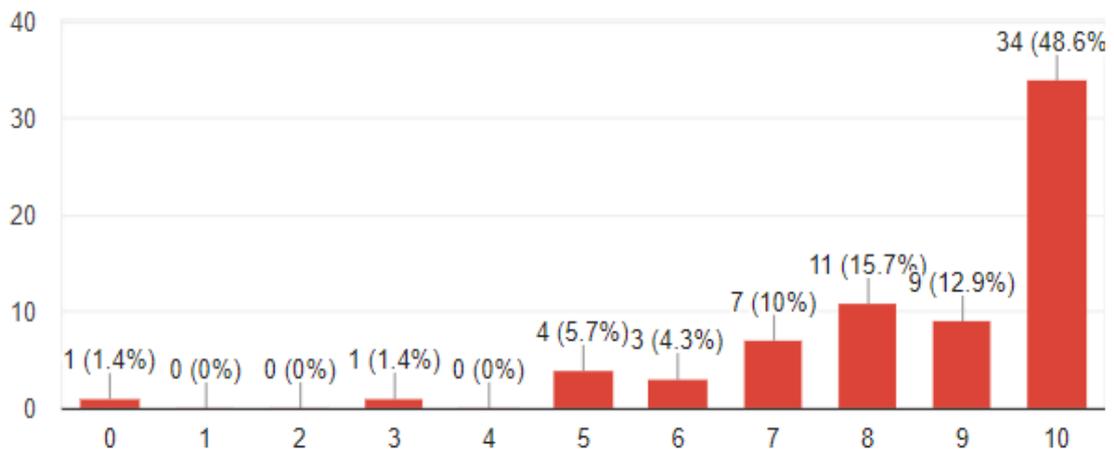


Figure 18. Do you think ICT skills should be improved in the next projects? (Question No. 19)

Some of the respondents' free opinions show their gratification according to the project and ICT used in it and they are available in the final report [2].

4. DISCUSSION

A study whose purpose is to know the influence of the Erasmus+ project on its participants in the context of digital competences. In the project still a quite big number of participants do not know some of specialized apps but many of them became known thanks to a project. It confirms the general tendency of teachers and students' professional development that should be invest to increase digitally confident and positive teachers.^{20,21} It is very important because research over the past 25 years has shown the significant influence of teacher competence on student achievement.²² The satisfying frequency of ICT used during the project e.g. at the school meetings equipped students with digital competence and enabled them to provide and take part in CLIL lessons or mutual tasks while working in the international groups. The matter of CLIL lessons was to include the big number of different apps and programmes and enhance digital competence throughout participants. And this aim was undoubtedly achieved. The objective of enrichment digital competence was reached but the quality level depended on personal engagement, the diverse number of products which were done with the use of diverse sort of apps. Here like in other researches²³ one of the obstacle was insufficient ICT equipment, but this inhibitor is not the same across countries and it did not play a great role. But considering the total level of tasks fulfilment developing digital competence is definitely satisfactory. Additional information about the implementation of ICT into the international meetings are Europass Mobility documents available on the project's platform.

The set of evaluations provided during the project revealed some of the reflections. First of all, the groups of teachers and students in the particular countries were similar in majority consisting of up to 10 teachers and 11-30 students. This is an average number of teams usually taking part in the international multilateral school cooperational projects. Secondly, the project implemented a wide array of applications, programmes and gave a chance to use some of the devices. Of course some ICT were known before the project but mainly concerned with offline version of Microsoft and some popular social media. Quite a big number of participants do not know some of specialized apps (partly, because there were more than 40 of them and that big number was not needed), but many of them became known thanks to a project. And they are online apps allowing to work in a so called cloud, which enables to share documents or simultaneously to create different files. Although, some of the devices are not known very well or do not reach a satisfactory level, mainly due to the financial issues. They are recording cameras, interactive whiteboards and according to evaluations of the international meetings, the computers and the access to the internet were

²⁰ P. Wastiau, R. Blamire, C. Kearney, V. Quittre, E. Van de Gear, C. Monseur, *The use of ICT in Education: a survey of schools in Europe*. 2013.

²¹ P. Benes, D. Mudrak, J. Prochazka, V. Rambousek, J. Stipek, *Research of ICT education in the Czech Republic*. Charles University in Prague, Czechia. *Problems of Education in the 21st century*, Vol. 5, 2008.

²² R. Owstone, *Teachers can make a difference: Professional development as a policy option for improving student learning with ICT*. 2006, Paper prepared for the CEIRIS-Keris international Expert meeting on ICT and Educational Performance), South Korea, October 16-19, 2007

²³ P. Wastiau, 2013.

also in a quite unsatisfactory condition. A level of ICT competencies of teachers had a decisive influence on the project and we presume it will be orientating on education process, realized within other subjects they teachers teach in the following school year. Other examples show similar findings.²⁴

The researches show that in spite of the fact that 62% of EU population uses the internet every day 47% of it has insufficient digital skills. What is more, the growing deficit of ICT professional skills, forecast to reach 900 000 by 2020. Considering that fact, there is real approach for education to fulfill the market demand and supply students generations with ICT skills.²⁵ The project did so, equipping systematically students and teachers with digital competence in many areas of foreign language learning, publishing products, providing and taking part in CLIL lessons.

The following questions in the polls show up also the differences between students and about half of them are not skillful in some devices. Probably because respondents did not have a chance to train and work with them enough amount of time. Some of them use more widely only some of the apps. What is more, some of the respondents still feel tentatively being more the users than creators. Another point is that, still about the half of the group uses the offline versions of programmes on the personal computers. The above outlook is confirmed also by the number of accounts which respondents have on very useful platforms. Generally some of the participants use apps but some of online software are not very common through a bigger number of respondents.

What is more, thanks to improvement in general competencies in ICT content, participants' English skills developed synergy.²⁶ Mainly, it happened because of the fact that almost all of the apps were in English but also because the communication between partners was in English and attentive role of teachers pointed that all apps have to be used in English which was also influential. Additional synergistic role was played by CLIL lessons which were prepared in ICT content and in which many times (in fact even more than 40 times) international teams took part. We could state that general frequency of ICT used at schools thanks to a project was significant, especially when we compare the general use of ICT by teachers and students in other researches, which reveal that teachers usually use ICT but in context of preparing lessons. And only few to a limited context work with students during the lessons.²⁷ The project and the CLIL lessons gave a great chance to improve that context. In the future it is expected that teachers form the project being confident in their digital skills and be positive about ICT's impact on learning organise more frequent ICT-based activities with their students, because that tendency is proved in the some researches.²⁸ Thanks to ability working together online the project involved online communicative interaction relating to a joint endeavour and it took place in an shared online environment where knowledge and learning are distributed, what other reserches have shown too [7].

²⁴ P. Benes, D. Mudrak, J. Prochazka, V. Rambousek, J. Stipek, Research of ICT education in the Czech Republic. Charles University in Prague, Czechia. Problems of Education in the 21st century, Vol. 5, 2008.

²⁵ European Commission. European Journal of Education. Part 1. Digital inclusion and skills. Digital Agenda Scoreboard 2014.

²⁶ A. Baranowski, 2017. Evaluation of Students' digital competence and ICT in the Erasmus+ project. Final Report. https://issuu.com/artbaranowski/docs/evaluation_of_students_digital_comp

²⁷ P. Wastiau, R. Blamire, C. Kearney, V. Quittre, E. Van de Gear, C. Monseur, The use of ICT in Education: a survey of schools in Europe. 2013.

²⁸ Ibid

The results and products gained during two years project were widely presented in a dozen official web pages or social profiles provided by every partner. They were also shared but by a rather low number of students in personal sites and probably more through publishing posts on social media. The satisfying frequency of ICT used during the project e.g. at the school meetings equipped students with digital competence and enabled them to provide and take part in CLIL lessons or mutual tasks while working in the international groups. The matter of CLIL lessons was to include the big number of different apps and programmes and enhancing digital competence through participants and this aim was undoubtedly achieved. The objective of enrichment digital competence was reached but the quality level depended on personal engagement, the diverse number of products which were done with the use of diverse sort of apps. But considering the total level of tasks fulfilment developing digital competence is definitely satisfactory. Additional information about the implementation of ICT into the international meetings are Europass Mobility documents which were created after every meeting, confirmed by two institutional sides hosting and sending, and also by National Agencies.

Additional participants reflection points out that projects curriculum accomplishment is assessed highly. For participants it is not only unforgettable experience but also it was a chance to gain important skills, discover innovative products or improve social, language and educational abilities.

5. CONCLUSIONS

Many scientists point out that educators and policymakers should persist in exploring ways to assist students in developing the technological skills that will be required of literate, globally active citizens of the future [4]. So, this was the point of this research in one of the projects taking plays nowadays. And taking into account the whole project in the light of digital competence, realization of the objectives put at the beginning of the project, evaluated and analysed in the research bring the following proposed assumptions:

- A. Teachers and students made a significant progress in digital competence in the project in many aspects like language, CLIL methodology or publishing on-line.
- B. All participants consider digital competence as a very useful and demanding skill on the labour market, education and life. And this kind of project should be continued because they bring well qualified future students and workers.
- C. There is a clearly seen inner diverse in digital competence in the project's groups.
- D. Students and teachers still need to develop digital competence, enabling them better learning and teaching.

The findings in the research are enriched with recommendation for institutions responsible for education, because their policies can play a major role to support all actions needed to bring about a digital education system and increase the number of digitally supportive schools and digitally confident and supportive teachers and students²⁹.

Recommendations for Educational Policy Makers in the future projects:

²⁹ P. Wastiau, R. Blamire, C. Kearney, V. Quittre, E. Van de Gear, C. Monseur, The use of ICT in Education: a survey of schools in Europe. 2013.

1. To persist the implementation of ICT in the context of projects and further teaching and learning.
2. Engage every student into tasks handling with the use of ICT, to reduce inner diverse.
3. Maintain the evaluation and measurement of the rise in students' competences after the project.

References

- [1] M. Svenssona, R. Baelob, Teacher students' perceptions of their digital competence. The 6th International Conference Edu World 2014 Education Facing Contemporary World Issues, 7th - 9th November 2014. *Procedia - Social and Behavioral Sciences* 180 (2015) 1527-1534
- [2] A. Ezquerra, A. De-Juanas, C. San Martín Ulloa, Teachers' Opinion about Teaching Competences and Development of Students' Key Competences in Spain, 5th World Conference on Educational Sciences - WCES 2013. *Procedia - Social and Behavioral Sciences* 116 (2014) 1222-1226
- [3] I. Rowlands, D. Nicholas, P. Williams, P. Huntington, M. Fieldhouse, B. Gunter, The Google generation: The information behaviour of the researcher of the future, *ASLIB Proceedings*, 60(4) (2008) 290-310
- [4] D. L. Labbo, Literacy pedagogy and computer technologies: Toward solving the puzzle of current and future classroom practices. *Australian Journal of Language and Literacy* Vol. 29, No. 3, 2006. pp. 199-209
- [5] W. J. Pelgrum, T. Plomp, The worldwide use of computers: a description of main trends. *Computers in Education* 20(4) (1993) 323-332
- [6] Gallardo-Echenique, J. Minelli de Oliveira, L. Marques-Molias, F. Esteve-Mon. Digital Competence in the Knowledge Society. Merlot. *Journal of Online Learning and Teaching*. Vol. 11, No. 1, March 2015. pp. 1-16
- [7] Merchant, Web 2.0, new literacies, and the idea of learning through participation. *English Teaching: Practice and Critique* Volume 8, Number 3, 2009, pp. 107-122