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Research report IO3

Part 1

Questionnaires Traditional, Blended And Digital Learning Within Mobility
– Meeting The Challenges And Expectations

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Part 2

Focus Group Interviews

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KA2 - Cooperation for innovation and the exchange of good practices
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Introduction

The flow of information is constantly present in human life and is constantly improved. Its driving forces are the progress of civilization and the development of technical devices. In the past the basic form of learning was education under the guidance of a teacher who was in physical contact with the students. This form has survived for centuries and is still partially present in the contemporary education and referred to as traditional education. The available means of communication have had a huge impact on the shape of teaching, allowing the transfer of training materials. The successively improved methods of education and constantly introduced new techniques optimized the learning process. This has led to an increase in learning efficiency, learning time reduction, and decreasing the costs of education. Nowadays, digital environment providers of e-learning products enable distance learning practically anywhere on Earth, and the only requirement is Internet access. Learning may concern various subject areas and many areas of life, economy and culture. Learning with the use of digital environment takes place not only during the formal education and language courses, but also in specialized courses extending professional knowledge. It is widely used in corporations, banks, financial institutions, and enterprises – wherever there is a rapid advancement of knowledge – and includes a training of a large number of employees. Trainings in this area are mainly aimed at increasing competences and qualifications of the staff. The second important consequence of the development of digital environment is learning internationalization and decentralization. Cyberspace allows people to learn from the best teachers, experts and scientists around the world and facilitates contact with a mentor or trainer. Moreover, these contacts may be frequent. International learning is conducive to the full use of knowledge resources located in different parts of the world. It can be assumed that the role of international learning in digital environment will increase in the future. More and more spheres of our life and activity move online, and learning will be no exception. Following report is divided into two parts. First part was conducted in spring 2020, though the usage of two questionnaires – one for university students (160 students) and the other for university staff - admin staff & teachers involved within mobility programme (103 staff). Second part of the study has been conducted in autumn 2020 using Focus Group Interviews with 78 University students from different parts of Europe.

In questionnaires and focus group interviews we referred to three mobility & learning schemes:

- (1) mobility & traditional learning, where mobility participants go abroad to carry out mobility activity in a partner country different from the country of the sending organization and the country where they live – in our questionnaire, this is referred to as international learning using only physical mobility,
- (2) mobility & blended learning, where mobility participants go abroad to carry out their mobility activity (as mentioned above), and supplementary to the physical mobility at the same time they use digital technologies (digital tools, mobile devices, online courses) for their learning – we have called in our questionnaire, international learning using physical mobility and digital tools,



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(3) mobility & digital learning, where mobility participants do not go abroad to carry out their mobility activity abroad (unlike the physical mobility case) but nevertheless learn within their mobility throughout online courses (taken from home, without travelling), led by teachers from other countries, accompanied by simultaneous interactions within online activities with students from foreign universities – we have called, in our questionnaire, international learning using only digital tools.

With this study, in relation to University students, we claim that:

- mobility & learning with digital tools shapes students' career identity, and is perceived by students as an opportunity to find themselves in advantaged positions in the labor market
- mobility with traditional learning helps students to develop their resilience and adaptability to cope with challenging situations, focus on social and interpersonal development
- mobility & learning with online tools motivates students to learn and helps them develop management skills, project work, planning, independence in learning (intrapersonal development)
- mobility with traditional learning supports the creation of four forms of learning (1) adjusting, (2) borrowing, (3) co-construction, (4) non-curricular focus
- mobility with blended & digital learning is perceived as being more visual (learning by seeing), which results in a more auditory style of learning (learn through listening & interactions)
- learning with digital tools supports shorter mobility schemes (2 weeks to 2 months)
- traditional learning within mobility supports mid-term mobility schemes (2-6 months)
- students are generally surprised at how easy international learning with digital tools is, however, they complained about some initial problems, usually on the side of their university. It is therefore worth getting acquainted with the experiences of students in order to organize their learning in an optimal way in the future.

In relation to HE teachers & administrative staff, we claim that:

- the main benefit of learning within traditional mobility of Higher Education teachers & admin staff is international experience, the main benefits of learning within digital mobility and blended mobility are the same: digital skills and professional knowledge
- digital and blended mobility digital knowledge, ICT skills and a positive attitude to this learning are needed; meaning that in the opinion of Higher Education teachers & admin staff knowledge, skills and attitudes needed for digital mobility are similar to knowledge, skills and attitudes needed for blended mobility
- most HE staff members would like to take part in physical mobility again; blended mobility and digital came second and third place respectively
- the research results allow us to conclude that mobility with physical, blended and digital learning are different ways of experiencing the world and learning, therefore, they should be implemented in parallel, and not presented as alternatives
- HE staff members prefer short-term forms of mobility and learning: in all of the mobility schemes, they indicated up to 2 weeks as being the most favorable.



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Part 1

Questionnaires Traditional, Blended And Digital Learning Within Mobility – Meeting The Challenges And Expectations



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I. Theoretical frameworks

The study described in this report is underpinned by the theory on adult development, particularly by Kegan's cognitive-developmental theory (Kegan 1982, 1998) that describes the different developmentally-related ways in which adults can view their world and problems experienced in it. In particular, Kegan emphasizes that as people grow, they are moving objects, and key ideas in their purview from "subject to object". In other words, they can take these notions and move from being subject to them to holding them as object. This adult development perspective suggests that learning courses within mobility have potential to provide international learning experiences that help HE staff & students to see their own systems with greater distance and perspective. As yet, however, there is no empirical account of the extent to which this kind of learning is being assessed in relation to their own expectations. This gap is being filled up with our study.

Another theory that our study is underpinned by is socio-constructivism, wherein learning is understood as both social interaction and cognitive activity (Vygotsky 1978; Wenger, et.al., 2002). In other words, learning is perceived as a cognitive process of knowledge construction, which requires social interaction; in this understanding, knowledge that is being built up by a learner within meaningful interactions with others. In relation to digital tools, several studies (e.g. Kreijns et al., 2002; Bernard et al., 2009, Sudarwati, 2018) on digital learning suggest that social interactions that are supplemental to online learning and development of knowledge or skills in the study field, support social construction of knowledge, and have a positive impact on students' results.

Internationalization of Higher Education Institutions (HEI) activities have their sources in historical, geographical, cultural and linguistic aspects of nations (Luijten-Lub et al. 2005). For Knight (2004) internationalization means "the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of postsecondary education" (p. 11). The rationale for internationalization of HEI according to Seber, et.al. (2016) is related to several factors at an organizational, intra-organizational and environmental level. For Cattaneo, et.al. (2016) rationales for internationalization of HEI are: (1) income generation, (2) student and staff development, meaning internationalization as a means by which the international and intercultural understanding and skills of students and staff are enhanced (3) strategic alliances formed, (4) the production of research and the furtherment of knowledge.

There are different definitions of internationalization, depending on cultural contexts and time when they were developed (Leask, 2012). Internationalization is considered as process within HE institutions, being connected with integration of elements of internationalization into research or teaching, but also into students' services. This term can be also considered in terms of academic mobility, and part of institutional culture (Tanhueco, 2019), being a solid component of the universities offering opportunities and challenges (Jane, 2015). For Hudzik and McCarthy (2015) internationalization of HE institutions provides the opportunity for an evaluation of the mission of HE institutions, through which boundaries and outreach are being extended, and academics become change agents for societal progress (Tanhueco,



2019). Altbach and Knight (2007) perceive internationalization as part of an academic system, institutions, and individuals that is built of its policies and programmes.

Internationalization occurs in different forms like research collaboration, joint-degree programmes, or foreign elements in local programmes (Tran and Marginson 2018; Beelen and Jones 2015). For Hudzik (2011) internationalization is “a commitment, confirmed through action, to infuse international and comparative perspectives throughout the teaching, research, and service missions of higher education” (p.7). Another fairly common form of internationalization is student exchange, also referred to as students’ mobility. Research work on mobility shows the impact of students’ mobility on attitudes, particular toward intercultural understanding (Messelink, et al., 2015), the self-identity (Jacobone et al., 2015), adaptive capacities (Cairns, 2018), sense of patience and humor when dealing with unexpected events and a change in perception of the world and oneself (Ingraham and Peterson, 2004). Learning outcomes of mobility are ‘curiosity, initiative, risk-taking, suspension of judgment, cognitive flexibility, tolerance of ambiguity, cultural humility, and resourcefulness’, laying at the ‘heart set’ of international learning (Bennet, 2008, p. 20). To address the European context of mobility, Messelink and Thije (2012) emphasize the role of the “European capacity” within mobility to describe skills that support dealing with multiple identities and differences that are effective in supporting operations within multicultural groups.

Mobility is also connected with the pressure put on universities to equip graduates with skills to work in an international environment as a result of the need for employable university graduates. (Neave 2002; Leask, 2009). In the European context, mobility of HEI is associated with the Erasmus programme, being perceived as ‘a strategic platform for the promotion of human development’ (Martínez-Usarralde, et al., 2017, p. 107), establishing joint international research programmes and degrees.

For decades, technology has increasingly become a part of our everyday lives, and this includes learning process strategies. Blended learning has been defined in different ways, however, what unites definitions of this term are educational experiences, technology, modes for communication, methods of learning using time management involvement, combination of learning and online presence (Graham, Allen & Ure, 2003; Marsh, 2012; Carlsen, Holmberg, Neghina & Owusu-Boampong, 2016; Naylor & Gibbs, 2018). In other words, blended learning encompasses both curricular and extra-curricular activities and use of digital technologies. Learning within the community supports exchange of experiences and meanings, facilitates collaboration and the knowledge building process using sharing, negotiating, discussing (Gruber, 2018).

Blended learning in the teaching profession is seen as a challenge to professionally up-to-date and develop opportunities on a continuous basis (Philipsen, Tondeur & Zhu, 2016; Schuwer et al., 2015). It facilitates learner empowerment to a greater extent than either face-to-face courses or fully online courses (Owston, 2018). In order for blended courses to be considered empowering, significant, required features are thoughtful duration (Consuegra & Engels, 2016), support of peers (Desimone & Garet, 2015), engagement in learning (Consuegra & Engels, 2016) and support of new relationships within a professional network (Ritchie, 2018).



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When considering digital tools for learning purposes, another term used for the purposes of this report is digital learning. Digital learning has many meanings but is commonly understood to mean learning by digital means. Research literature abounds with overlapping, inconsistent and confusing terminology and definitions of what learning with digital tools is. (Guri-Rosenblit, 2005), involving many different features and models of practice (Cavanaugh, Ferdig, & Freidhoff, 2017). Common names used to refer to digital learning include: e-learning, virtual, online, flexible, open, digital, virtual and distance learning, computer-based training, or web-based learning (Barbour, 2014; Guri-Rosenblit, 2005; Cavanaugh, Ferdig, & Freidhoff, 2017).

For the purposes of this report we use the term digital learning as that being practiced in international educational settings of a mobility programme. In this understanding, digital learning is being defined as learning that is facilitated by a range of digital technologies to enable communication and collaboration, where students and teachers are in different physical locations (Bolstad & Lin, 2009). In other words, digital learning is a learning model using technology of information and communication, where learning is led by learner themselves and/or by course lead (i.e. teacher). Characteristics of digital learning include 1) content relevance to learning purposes, (2) instructional learning, 3) usage of media, 4) teacher-centered synchronous e-learning or it is designed for autonomous learning (asynchronous e-learning); 5) developing of students' critical reflection on learning aims and skills. Bolstad & Lin, 2009; Barbour, 2014; Guri-Rosenblit, 2005; Cavanaugh, Ferdig, & Freidhoff, 2017).

Digital learning has recently been considered for use in the context of virtual classroom systems, and understood as learning platforms with features that support optimal learning environments (Charles & Babatunde, 2014). These systems include a real-time classroom activity, text books and were originally intended to replace Skype and other online tools for video conferencing (Wang & Chen, 2007). The advantage of virtual classroom systems over traditional Skype, Zoom or Teams meetings is that they allow for quality monitoring, for the teacher to specify particular tasks and cater for students' preferences (personal needs, timetable, etc.). Other advantages for students include more time allocated for talk than they would receive in typical traditional classroom settings due to the differences in class sizes (Kobzar, et.al., 2015; Manegre, 2020). Comparative studies (i.e. Al-Qahtani and Higgins, 2013; Demirer and Sahin (2013) on the effectiveness of traditional, blended and digital learning environments, identified that blended learning conditions result in higher levels of student achievement and a better transfer of knowledge.

The sources of scientific thinking about workplace learning should be sought in the concept of organizational learning developed by two Americans, Chris Argyris (1993, 1978, 1974), and Donald Schön (1987, 1983). However, this concept is more a management than a learning concept, as learning in it relates to organizations not to workers. This concept doesn't take into account that there is a gap between what workers say, think, plan and what they actually do in the organization. Its attention is focused more on the creation of learning-friendly situations by institutions than on learning itself (Illeris 2011: 7).

The answer to these weaknesses is the concept of workplace learning, which breaks down the learning barriers between the period of formal education at school which prepares you



for work and professional work and is focused on the learning process. Workplace learning is based on the assumption that adult learning cannot be considered in isolation from its specific location, which gives learning often a unique context. In the case of children and adolescents, learning is most often located in schools or other educational institutions, in places where free time is spent or in the virtual world. Adult learning takes place mainly at work, because work is one of the basic determinants of adulthood, the main arena for adults activities and main source of their experiences. Well-known adult learning researcher – Knud Illeris is of the opinion that the workplace is a very attractive research area, because it concerns the learning opportunities of employees and developing qualifications at work" (Illeris 2006: 205). Workplace life is the dominant activity of an adult, demanding and provoking learning. Workplace activities are the most common motives and circumstances for learning. It is in the workplace that knowledge, skills and competitions are created (Avis, 2010: 171). At present, the educational significance of the workplace is increasing because it has been recognized that schools, even the best, cannot provide the graduates with knowledge, skills and competences that will last a lifetime. Therefore, people as employees more often learn in the workplace to keep pace with the changing world and labour market requirements. Moreover, the contemporary, post-capitalist nature of work not only promotes learning at work, but even forces one to learn. One feature of work in the past (in the industrial age, the best exemplification of which is Taylorism in Great Britain and Reaganism in the United States), was the minimization of all subjectivity, individuality, and opportunities for workplace learning. All subjective dimensions of the workers were minimized as being a threat to the quality of the final product and the efficiency of enterprises. In the 1970s and 1980s, the idea of "human resource development" arose, and this was the basis for modern thinking about workplace learning. It has made workplace learning an important issue in terms of management practice, organization and financial results.

The current growth of interest in workplace learning is expressed both in the intensification of scientific research in this area (Rintala, Nokelainen, Pylväs 2018; Coetzer, Kock, Wallo 2017; Froehlich; Beausaert, Segers 2017; Haemer, Borges-Andrade, Cassiano 2017; Janssens, Smet, Onghena, Kyndt 2017; Collin et al, 2011; Illeris 2011; Avis, 2010; Doornbos et al, 2008, Fenwick, 2008a, 2008b; Antonacopoulou et al. 2006; Felstead et al, 2005, Illeris 2004; Illeris 2003; Jarvis, Halford, Griffin, ed., 2003; Koltai 2002; Järvinen, Poikela 2001; Engeström 2001; Ellesröm 2001) and in the institutional support of this process by international organizations. Workplace learning has been recognized by the European Commission as important for the future of the European Union's societies and is a priority in the Horizon 2020 programme. The purpose of supporting and promoting workplace learning is to increase the innovation of the European Union's economies, to accelerate economic development and to reduce unemployment. Institutional support and the intensification of workplace learning are expected to fill the gaps between science and the economy and to remove barriers to cooperation between science and the economy to stimulate innovation).

Learning in the workplace is most often classified as non-formal education that takes place without any imposed education programme (Hodkinson, Colley, Janice Malcolm 2003: 313–

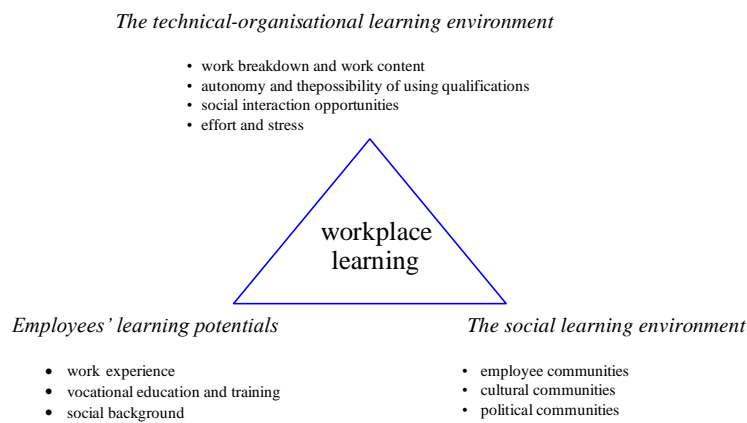


318). As David Livingstone (1999: 51) points out, informal learning can be defined as “any activity involving the pursuit of understanding, knowledge or skill which occurs outside the curricula of educational institutions, or the courses or workshops offered by educational or social agencies”.

This kind of learning may not have specific learning objectives. Informal learning may occur at the initiative of the individual, but also happens as a by-product of organized activities, which may or may not, have learning objectives.

According to Danish adult education researcher Knud Illeris the workplace has become a very attractive research area for learning, because the issue of the workplace as a learning space concerns the potential learning opportunities of employees and raising qualifications at work or in connection with their profession (Illeris 2006: 205). K. Illeris included workplace learning in the following model:

Figure 1. Workplace learning model



Source: Illeris i Associates (2004: 31).

The technical-organisational learning environment refers to organizational forms of learning. These are external conditions for the learner and solutions adopted at the institution level regarding who, where, when and for what purpose a person is trained, what potentially can bring about learning. Organizational forms most often include: practical exercises, tactical classes, training ground, training, combat drill, individual work, group work, collective work, replacement in official positions, training course, training trip, entrusting official tasks and home study (Donche 2003, p. 83, Westwood 2008, p. 56-69). As part of organizational forms of training various teaching methods are used. Adult teaching methods most frequently indicated in the literature are: description, discussion, lecture, explanation, self problem solving, briefing, demonstration (items, terrain, activities), theoretical exercises, practical exercises, learning with a printed source and simulation (Westwood 2008, p. 16-47).



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The social learning environment defines learning opportunities, but also learning barriers, which mainly include: excessive requirements, multiple training goals, improperly selected forms, methods and means, a large number of soldiers in groups, badly organized classes, methodological errors made by instructors, unsystematic learning, lack of interest, lack of control and evaluation, gaps in military knowledge, time pressure, stress (Linn, Gronlund 2000).

Learning opportunities are the third element of the workplace learning model. They depend on two previously mentioned. Although K. Illeris does not write it explicitly, learning opportunities may be considered to be the most important factor regarding learning in the workplace. It is these opportunities to learn that largely determine whether or not learning will take place and what the result will be. Most important opportunities are related to work experience, education and social background (Illeris and Associates 2004: 31).

The technical and organizational work environment, social work environment and learning opportunities are the three poles between which learning occurs. These poles interact with each other. This means that learning opportunities at work result from the technical and organizational work environment and the social work environment. At the same time, these environments influence each other. Taking advantage of available learning opportunities resulting from the technical and organizational environment may result in the modification of this environment, for example, by introducing technical innovations, more efficient use of existing technology or even small changes in the way working practices are organized. In turn, such modifications create new learning opportunities. If the employee uses them, they can again modify their source, which in turn will create new learning opportunities. The same mechanism applies to the social work environment. It provides learning opportunities, but if employees take advantage of these opportunities, being members of this environment themselves, they will contribute to its change. Changes in the social environment bring new learning opportunities, the use of which again modifies this environment and new learning opportunities arise again. At the same time, these two environments are also interdependent. Technical innovation can modify the nature of the employee community (social environment), while the employee community can introduce any, also informal technical or organizational changes. (Illeris and Associates 2004: 29-40).

Each of the elements of the above model, although present in almost every workplace, has its own specifics. Workplaces have a specific organizational culture, sense of community, rhythm of daily work activities, common values and norms.

One of the professional groups whose workplace conditions and requirements have changed in the last years and continues to change is university staff - both administration staff and academic teachers. Mainly due to globalization, the university has become an entrepreneurial institution governed by the laws of academic capitalism (Clark, 1998). The university is characterized by strong organizational autonomy, requiring division into managerial staff (rectors, vice-rectors, deans, deputy deans), scientists and administration. According to Barbara Sporn, in university management, there are three trends: shared management, entrepreneurial approach and flexible/learning architectures (Sporn 2006: 149). The traditional (bureaucratic) model has been replaced by the management model. It has become important to improve the quality of officials' work by increasing student



orientation, supporting researchers and increasing efficiency concerning the obtaining of grants. Universities strive for more effective implementation of statutory tasks, to create conditions for employee initiative, extension of managerial roles, orientation on flexibility, innovation and entrepreneurship. The implementation of these demands requires new knowledge, skills, competences and styles of working from administrative staff and academic teachers.

II. Methodology

II.1. Research questions

For the study, we formulated the following research questions:

1. *What are challenges of mobility in relation to traditional, blended and digital learning?*
2. *What are benefits of mobility in relation to traditional, blended and digital learning?*
3. *What are distinctive features of mobility within traditional, blended and digital learning?*
4. *What is the role of mobility in HE staff and students learning?*

II.2. Method

In line with the research purpose, a descriptive survey method was considered. The basic goal of our survey method was to determine expectations of HE students and staff with traditional, blended and digital learning within mobility, the views of the participants about advantages, experiences, expectations of this phenomenon, their characteristics such as time, professional knowledge, and skills, or digital competencies required to take part in these three mobility schemes.

We used a mixed-methods design for data gathering. In our qualitative, descriptive study we incorporated elements from quantitative and qualitative methodologies that can serve as an innovative research tool for studying mobility & learning. A qualitative description approach facilitates the collection of data that will be “analyzed not only from the perspective of traditionally qualitative methodologies, but also through a more quantitative lens, making possible a quasi-statistical analysis of content, providing an overall summary of the findings” (Seixas, 2017, 780).



II.3. Participants

The participants in the study were 160 Higher Education (HE) students and 103 staff, both groups involved within mobility from countries of European Union (EU) and outside of the EU. We performed a purposive sampling of students and staff. We selected both groups of our respondents based on their experience with mobility (selection criteria: participation in at least one mobility scheme in last 18 months).

II.4. Research tool

Two of the questionnaires were developed in English: one for HE staff and one for students. Each questionnaire contained of three parts. Each part focused on a different type of mobility and learning: part 1 – on mobility and traditional learning, part 2 – on mobility and blended learning, and part 3 - on mobility and digital learning. The research data were collected using a questionnaire made up of six close-ended questions and three open-ended questions. For the purpose of investigating expectations and experiences with different mobility schemes, we formulated open-end questions like 1. *If there was opportunity at your university, to take part in physical mobility, would you take part in such mobility?* 2. *What is necessary to take part in physical mobility?*, 3. *What was your the most positive/negative experience of your physical mobility?* In closed-ended questions, we referred to (1) mobility length (up to 2 weeks, between 2 weeks and 2 months, between 2 and 6 months, between 6 and 12 months and longer than 12 months); the periods reflect the Erasmus+ mobility exchange possibilities that exist for employees and students of Higher Education (HE) institutions in Europe, (2) opportunities, benefits of learning within mobility, with options to choose like the possibility of gaining professional knowledge, skills, gaining international experience, learning how to learn, getting to know new friends, improved motivation to learning, dealing with stress, development of empathy towards others, and (3) expectations towards learning within mobility, where, for example, we suggested choosing from the following expectations: an interesting training programme, development of professional knowledge, skills, gaining international experience, making new friends, developing motivation for learning.

II.5. Framework to guide the study

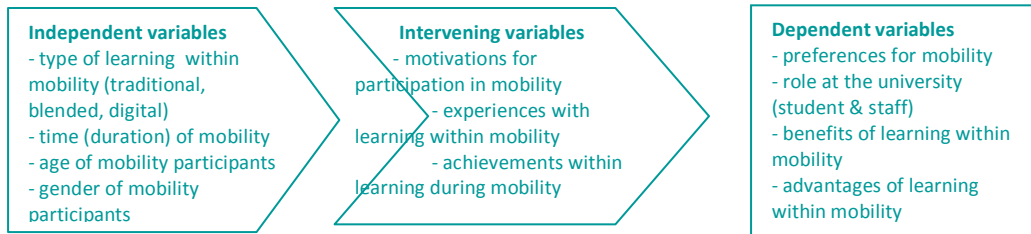
Learning is connected with motivation, experiences and achievements (evaluation). These motivations, experiences and achievements are shown as the intervening processes or variables in the model, and should help to explain variations in resulting perceived learning. A variety of "independent" or contextual variables may influence whether staff and students will be motivated to learn, experience learning and achieve goals. For this initial version of the model, we included three such variables: role at the university (staff/students), time (duration of mobility) and type of learning (traditional, blended, digital). Role at the university is related to skills, thus students may experience types of learning in different ways, achieve learning goals through ways that are more motivating than those they get



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from staff; on the other hand, they might lack confidence when using computers; these factors may balance out. Finally, the type of learning in framing and facilitating activities is crucial to their success.

Figure 2. Framework to guide the study - research model



Source: original study

II.6. Data collection

A probability-based sampling technique was used within the population of university students and employees in order to minimize probabilistic sampling method biases (Fricker, 2008). The survey itself was randomly allocated to 28 HEI. In part dedicated for students, we received responds from 16 HEI. Survey for university staff was filled in by respondents from 21 HEI. A total of 103 responses were received from HEI employees and 160 from students. The survey was sent on April, 3rd, 2020 and was live for 8 weeks (until May 29, 2020). The time frame was determined by monitoring the number of responses received and length of academic semester (availability of respondents). Most of the responses were received within the last 15 days.

II.7. Data analysis

During the analysis, each quote was inductively coded. No text recognition or automated frequency software was used; all analyses were performed manually to ensure coding familiarity. With the help of content analysis, the data were refined, and underlying patterns and qualitative differences likely to be present in the data were revealed and coded. Once the codes were saturated, similar open-text answers were grouped together through content-driven analysis and then built into themes.



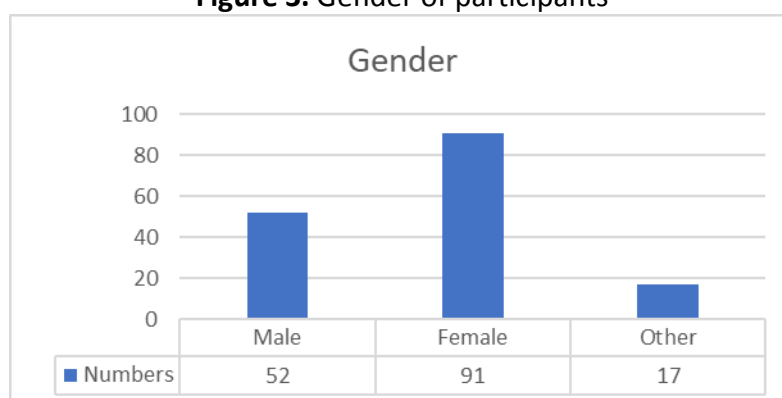
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III. University students questionnaire analysis

III.1. About study participants

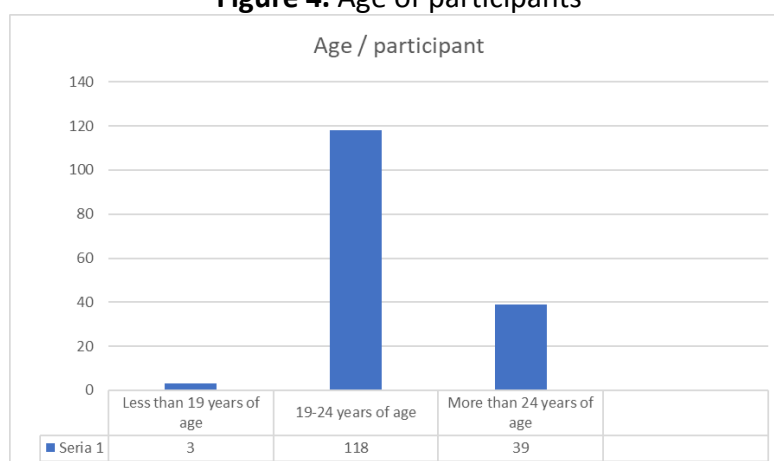
160 students took part in the study: 57% females (81) and 32% males (32). Other than female or male gender was declared by 11% (17) students. 90% of survey participants were 19-24 years of age, 10% were more than 24 years of age.

Figure 3. Gender of participants



Source: original study

Figure 4. Age of participants



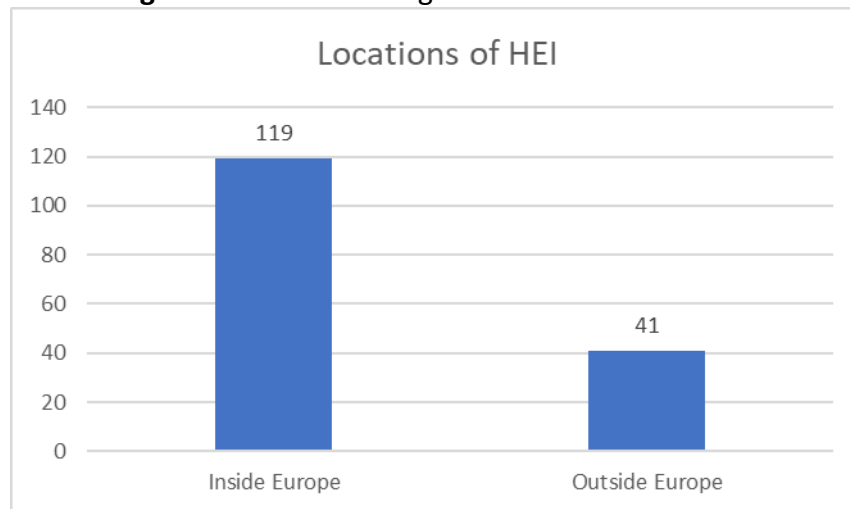
Source: original study

74% came from a Higher Education Institution (HEI) located inside Europe, 26%– from outside Europe.



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Figure 5. Location of Higher Education Institution

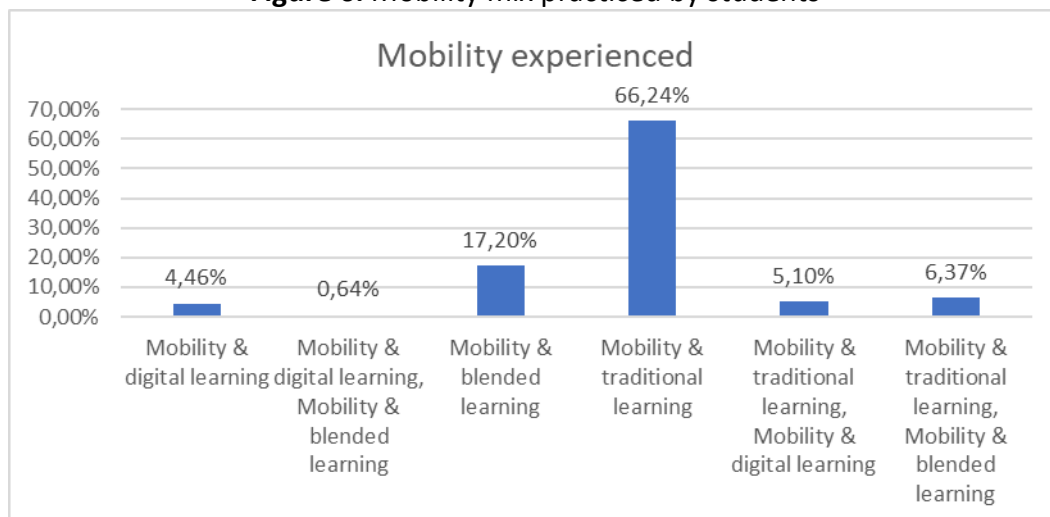


Source: original study

In the introduction to the questionnaire, with one of the first questions we wanted to find out what mobility was practiced by our respondents.

Students took part in traditional mobility (practiced by 66,24%), mobility and blended learning (17,20%), digital mobility (4,46%). They were also mixing traditional learning with blended learning (6,37%), followed by mobility traditional learning with digital learning (5,10%). One student (0,64%) was combining mobility and blended learning with mobility and digital learning. In other words, 66,4% of respondents were practicing traditional learning within their mobility, and 33,76% have had experiences with blended and digital learning within their mobility.

Figure 6. Mobility mix practiced by students



Source: original study



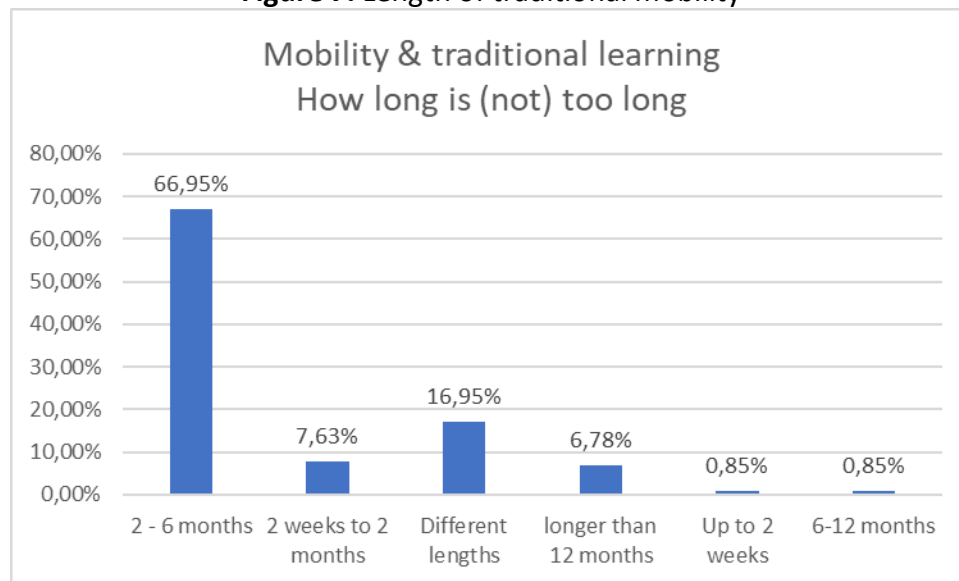
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III.2. Mobility, learning and how long is (not) too long

The aim of the first and main part of the study was to reveal experiences with traditional learning within mobility.

Regarding the length of physical mobility that in the opinion of students is the best for their traditional learning, the most popular answer was 2-6 months (66,95%), 2 weeks to 2 months (7,63%), longer than 12 months (6,78%), up to 2 weeks (0,85%), 6-12 months (0,85%) and different lengths (16,95%).

Figure 7. Length of traditional mobility



Source: original study

With an open-end question, students were given the opportunity to explain their choices for the length 2-6 months. In relation to traditional learning, explanations can be grouped as follows:

(1) Learning within the course

Up to 6 months is needed to finish Learning activities, i.e. projects require time; it allows me to develop proper projects within; Because I wanted to meet the delivery dates for my thesis;

(2) Learning how to deal with new culture

It is enough time to find out about a new culture and its customs; we learn how things work in other countries, as well as how other education systems work in up to 6 months; I think that 6 months is long enough for us to be able to live the whole experience of studying outside the country of origin; this time gives us a good perspective of the country, of the learning, of a different social environment, of the experience of living abroad; it allowed me to meet new people and experience how other countries live; is good opportunity to find out about different places, to travel around; To truly immerse yourself in a different culture, you need time to spend on it, understand the people and make strong bonds;

(3) Learning to live without family

Learning how to live without parents; We become very independent and from my own experience I can say, it takes at least two months to fully adapt to living without parents; ; in this period of time, you are able to adapt, settle, get to know the place and the culture, create a routine and settle down in the place where you are creating stability; I think everybody experiences a culture shock and everybody needs time to adjust and to get to know the city where they are;



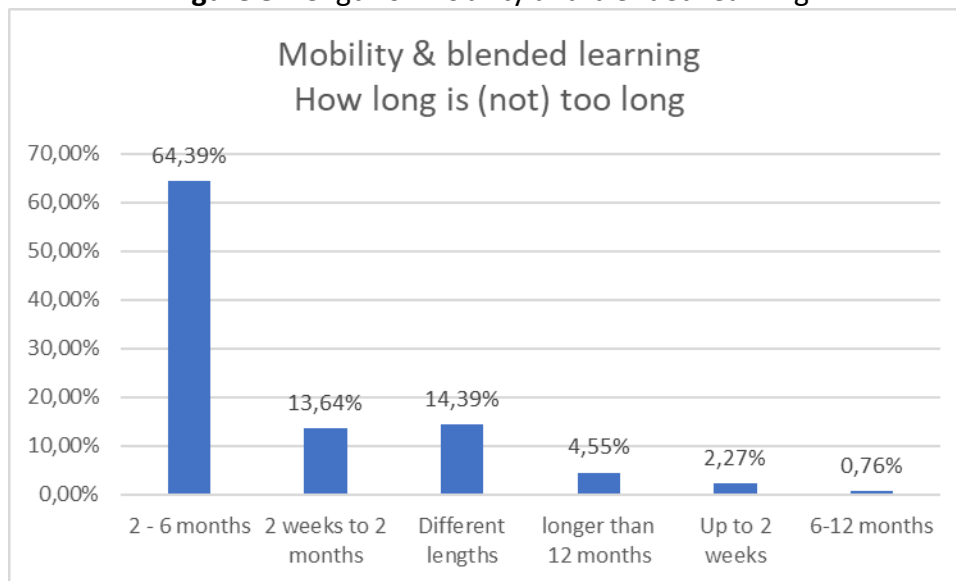
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(4) Learning to live with new friends

I believe this is the best time to immerse yourself in a culture, language and social reference; to make new contacts and improve social competences; After they get used to it, people need time to make new friends, and when they make new friends, they need time to enjoy the experience; 6 months is enough time to make new friends and enjoy the experience abroad; at least 4 months and up to 6 months - to have the opportunity to "feel at home" in the foreign country;

Another issue that our questionnaire focused on was finding out what is the best length of blended learning within mobility. The most popular was 2 to 6 months (64,39%), followed by 2 weeks to 2 months (13,64%), longer than 12 months (4,55%), up to 2 weeks (2,27%), 6-12 months (0,76%), different lengths (14,39%).

Figure 8. Length of mobility and blended learning



Source: original study

We asked students to explain their justification for the length of mobility and blended learning.

For a group of students there is no difference in length between traditional mobility and blended learning. One student explained it in this way:

Learning within mobility is not much different from physical mobility as far as time is concerned as both learning within physical and blended mobility required the same amount of time for learning at home or during the course.

When discussing the length of blended learning and mobility, students related this kind of mobility with career and digital skills needed for a career. Examples of student's explanations:

Digital skills are very important in the work area; Although I think that my education in my area was not affected, I think that the competencies and skills acquired were important and relevant for employment;

In contrast to discussing mobility & traditional learning, when students described mobility and blended learning experiences, something that was mentioned more often was participating in the study field. In this context, shorter than 2 months is enough time for the course content and knowledge development in the study field but not enough time for the "physical" part of this mobility scheme that relates to travel. Examples of explanations:

Shorter than 2 months is good to focus on the course and its knowledge development, the rest of time could be dedicated to get to know the university, country or to meet friends; It is enough to learn but not to settle; It is the ideal period of time to



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discover the different cultures, academic activities and people; I think it is important to me that I can attend courses given by a university that is well known for providing courses in the field of my choice, but courses should be short.

For some of our respondents the length 12 months+ for mobility and blended learning is the most efficient. For this group, incorporating digital tools in physical mobility does not require a lot of time, however, the “physical” component of mobility, like getting to know a new country, culture, friends requires more than 6 months. For those students that preferred 12+ months for mobility and blended learning, digital tools within their mobility were perceived as added value.

I think that since we are dealing with digital tools during mobility, you need a longer time than if it was completely physical; Blended mobility requires more time due to digital skills that are needed to take part within - I believe it is easier to adapt to something digital but it can be exhausting after some time or it takes longer to learn it; It takes time to adjust to digital tools and benefit from using them; Online courses can only be a complement to physical mobility so you can learn more in less time; I think the additional experience via the digital tools would be interesting;

There were also students that were sceptical about digital tools being included in mobility, as they perceived mobility rather as a social activity with a focus on the study field and course content. As one student explained:

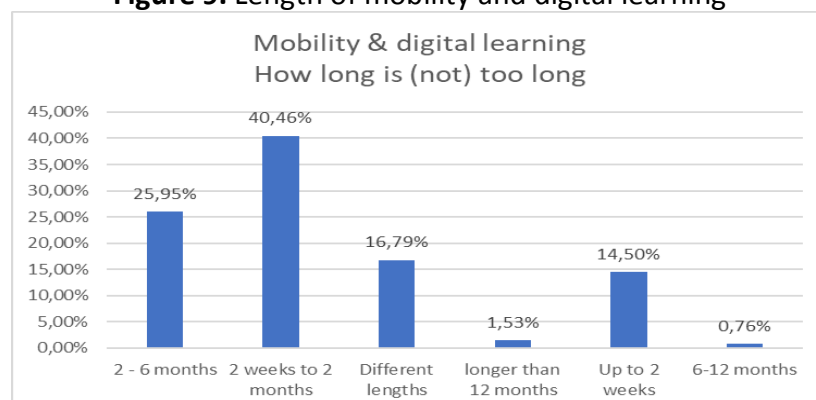
I suppose the human component is somewhat smaller in a mixed scenario, so for me developing my skills was less in social fields and more focused on practical work contexts

When considering the advantages of blended learning, one of assets of this kind of learning is the accessibility of course materials that could be uploaded or re-watched anytime. There was also a group of students that perceived digital tools as a facilitator of learning, making learning interesting and enjoyable. Examples of student’s answers:

If digital skills are included, you might be able to continue this work from home so you don't need to stay abroad that long; The courses that I took during my mobility semester were recorded and uploaded on the university's web-page; having the learning materials available at any time, Having access to the classes' documents when at home, or even when going back to my home country; Being able to study from any place, online tools make classes and learning faster; I could attend my sessions from anywhere and I really liked the recorded sessions for revisions and preparing for my exams. I didn't waste time in travelling either; Seminars can be fun (with group video calls);

As motivations to participation in mobility and blended learning, students mentioned development of digital skills (28), development of knowledge in the study field (28), gaining international experience (22), development of skills in the study field (16), foreign languages practice (17), career opportunities (8). Much less important is networking opportunities and making new friendships (4).

Figure 9. Length of mobility and digital learning



Source: original study



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In addition to recognition of students' opinions on the length of mobility with traditional learning and blending learning, in our study, we also asked students about the length of mobility and digital learning. In opinion of respondents, the best length for this kind of mobility is 2 weeks – 2 months (40,46%), 2-6 months (25,95%), up to 2 weeks (14,50%), longer than 12 months (1,53%), 6-12 months (0,76%), different length (16,79%).

We asked students in an open-end question to explain their choices regarding length. The answers for the length (2 weeks-2 months) were referring to the similar reasons concerning mobility and blended learning. Short lengths with this mobility were associated with rapidly adapting to using digital tools and losing of motivation if the courses online were long. Examples of answers:

For this type of learning I think a few weeks would be enough or I would start to lose some motivation; I believe it is easier to adapt to something digital but it would probably become exhausting after some time; It can become very long if you're always sitting in front of your PC; I guess that thanks to digital tools students might be able to adapt faster; Digital tools face the risk of losing their appeal quicker than actual visits.

Some students who took part in our study had a low level of digital skills. This group believed they would need several months (12 month and longer) first to find out how to use moodle or other online tools for learning and then another few months to develop knowledge in the study field.

With digital learning, probably the time to fully adapt to a new reality would need to be 12 months or longer; 6 months are good for developing skills and reaching goals such as learning languages, starting new relationship, etc.; I think that since you are also dealing with digital tools, you need a longer time than if it was completely physical; I believe that it requires time to get comfortable with digital skills.

The experience with digital tools might be related to the time (COVID19 pandemic April – June 2020) when the study was conducted. Some of our respondents were participants of traditional mobility programmes, where because of the new situation, their host universities were forced to turn the courses to online courses. Examples of students' answers:

The blended learning for me was more or less enforced by the COVID-19 pandemic, when people were not allowed to meet each other anymore. It was during the last part of my physical mobility that learning moved from face-to-face classes to the private home-sphere. So it was useful to finish the learning semester at home via Laptop and internet-tools. Especially for the language class it was more satisfying to have some online-meetings and finding online self-learning material, which was acknowledged by the class syllabus; Blended learning is complementary to physical mobility because of Coronavirus, I'm doing online meetings with my mentor and doing researches online; Due to the coronavirus, we then had only online studies; I needed to switch from physical mobility to digital learning due to corona; At the beginning of the academic semester there was physical mobility but mid/end of the semester because of COVID-19, digital tools had to be used including online video-call classes; I started a physical mobility then I had to continue it online because of the virus, I had lectures online via video chat and a lot of assignments and projects; Due to the current pandemic situation, there was an increased use of digital, therefore I have been involved in digital tools.

The other group of students that was practicing digital learning within their mobility were students that finished their mobility programmes before the COVID-19 outbreak and were participating in mobility and digital tools at their home university. Examples of students comments:

I think nowadays most physical mobilities involve digital tools. I also use digital tools to study at my home university and it was no different going abroad; I had lectures at my home university and I had online course also from home; Yes, during my bachelor's programme in my home country; I have been involved in a 1-year long training programme in my home country which included both learning via digital platforms and learning with my peers together at short trainings requiring physical presence, and I have spent a week abroad with some of these peers and some other international students at an intensive training and mobility; at my current university, some group activities or meetings were only online.

In addition to positive experiences with physical mobility, we also asked about negative experiences within learning during students' mobility. Negative experiences were connected with



a) Bureaucracy in relation to studying at another university, examples of students experiences:

Delay because of bureaucracy and lack of information on how the process was going. I had to change classes and the approval process was stressful; The most negative experience was dealing with paper work at university; Communicating with the university was extremely difficult, information wasn't clear and everything to do with the university management was difficult; I think the most negative experiences were misunderstandings, either regarding courses and difficulties with the organisation of the course recognition or cultural/personal misunderstandings

b) Learning and teaching methods

University professors did not support anything, even though we knew we were Erasmus students; Probably the difference in the exam method; initial struggles of projecting standards from home onto new classes/assignments;

c) Leaving family and friends

Distance from family and loved ones in the first months was complicated; Far away from my peers; Missing my friends and family; difficulty finding a house; The time apart from family; I really missed my family and my friends in the first week; Miss my family; Missing my family and friends; Staying away from home; raising your self-confidence; loneliness;

d) Interpersonal and social relations with local people

The general negative attitudes from the people in the country I studied in; The lack of empathy of the professor for Erasmus students; Learning how to overcome being more by myself and not always surrounded by others and family, living by myself; Being pushed back and stereotyped because of the country I come from, confrontation with very patriarchal structures; It's difficult to find a cheap and good place to live; finding accommodation for short periods - I mean less than 6 months; Worrying about the costs of travelling, rent and food; difficulty finding a house;

d) Racism

I experienced a tendency to racism; and prejudices towards foreign people because of the country they come from. I didn't feel comfortable with the reactions of people at the host university to where I come from.

e) Language difficulties

Personally, the language barrier was the most negative experience. We faced infinite challenges with communication in the local language; Language struggles; Not knowing the native language; . the language barriers; That I cannot speak the language and that English is not widely spoken, so it is harder to communicate with locals.

In relation to mobility and digital tools, in responses to this open-end question, students were referring to

a) Course content presence online (accessibility of materials, tools used to present materials, i.e. moodle)

I had difficulty getting access to old books and manuscripts that haven't been digitized. I was not familiar with the university distance learning system.

b) Teachers and peers feedback (lack of feedback)

Not having feedback from the teacher, and having limited feedback from fellow students; Teachers should always take attendance because if not I would not attend personally (although in university I attended whether they took attendance or not) and some teachers refused to record the sessions and online learning can be a bit more distracting than physical attendance that's why recording is important; The difficulty of not having the support network that I have in my home country to help find materials or even study together.

Blended learning requires in the opinion of student's intrapersonal skills, particular time management, motivation to learn and focus on what is being expected from students to participate in the course. Digital learning can, however, be experienced as less interesting than traditional learning because of lack of interactions with teachers and peers. Students also pointed out organizational issues at the host university, such as when for example, the lecturer dominated speaking time to such an extent that students couldn't ask questions while the teacher was talking.

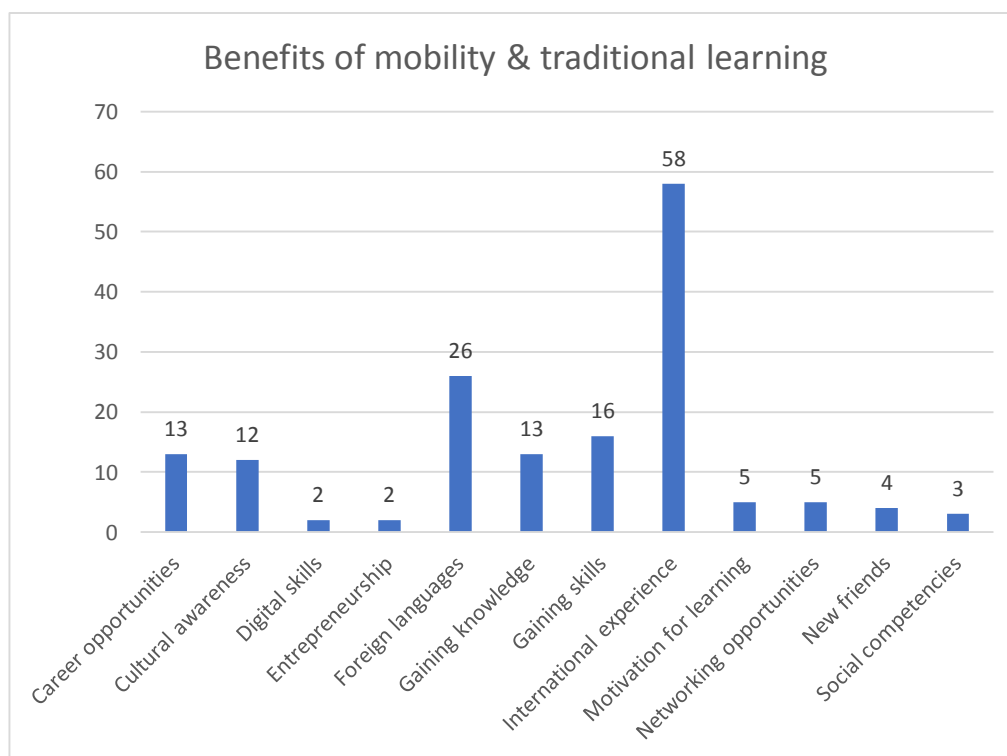


III.3. Mobility, learning and benefits

The question regarding the length of learning within mobility, was followed by focusing on benefits arising from participation in physical mobility. In the survey, we listed possible benefits to be chosen by students, like “Career opportunities”, “Cultural awareness”, “Entrepreneurship”, “Digital skills”, “Foreign languages”, “Gaining knowledge”, “Gaining skills”, “International experience”, “Motivation for learning”, “Networking”, “New friends”, “Social competence”. In addition, students also had the opportunity to name their own benefits, not listed in the survey, including explanation (in an open-ended question).

As the most popular has been listed by students: “International experience” (58 students), “Foreign languages learning” (26), “Gaining skills” (16), “Improved career opportunities” (13), “Gaining knowledge” (13), “Cultural awareness” (12), “Motivation for learning” (5), “Networking” (5), “Getting to know new friends” (4), “Development of social competence” (3), “Development of entrepreneurship” (2), “Development of digital skills” (2).

Figure 10. Mobility of physical learning – benefits



Source: original study

Students that were asked in an open-ended question to explain their choices, gave us following explanations:

a) Learning foreign language and culture

Learning another language, I've learnt in a language different than my native one, had a cultural experience and improved my research abilities, learning in the work context; become more aware of cultural diversity. I was able to travel throughout the country and neighbouring countries; I would say the experience of getting to know a different culture was



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the best. I got to know different cultures and people, and that made me more aware of the wonderful variety within our world; travel in the new country;

b) Developing methods of learning

I can learn about different learning methods that are not available at my home university; The most positive experience was finding exceptional teachers and researchers who helped me whenever I needed any help to do my laboratory work; Gain familiarity with a different teaching method; getting to know a different academic system

c) Learning for career opportunities

I believe the most positive experience was attending a trade-fair, where I got to know and interact with others; I have experienced courses that have opened my eyes to new opportunities and new career perspectives.

d) Learning university/study experiences

Studying is always connected to physical presence. I liked to be on the campus where important events happen; Here in Hungary, I find the teaching method outdated. It's too lexical, and they only care about students to give back facts, which they had to learn. However, at my host university, they made us to do presentations, speak and express our opinion first, and it was only later that teachers gave us their points of view. There was a lot of group-work, and I found it extremely useful, because in the real life, we'll have to deal with our colleagues and be creative - be team workers; The positive approach of professors, the atmosphere was more professional. They knew that you came there to study and to improve your skills, get international contacts; There were some professors who were very helpful, and the administration was easier than in my home country; Studying in a different school system; The best experience is at university. When it comes to knowledge and good teachers, I think I've been taught by a variety of teachers. who are at a high level in their field. I appreciate this as an experience for a student like me.

e) Intrapersonal learning

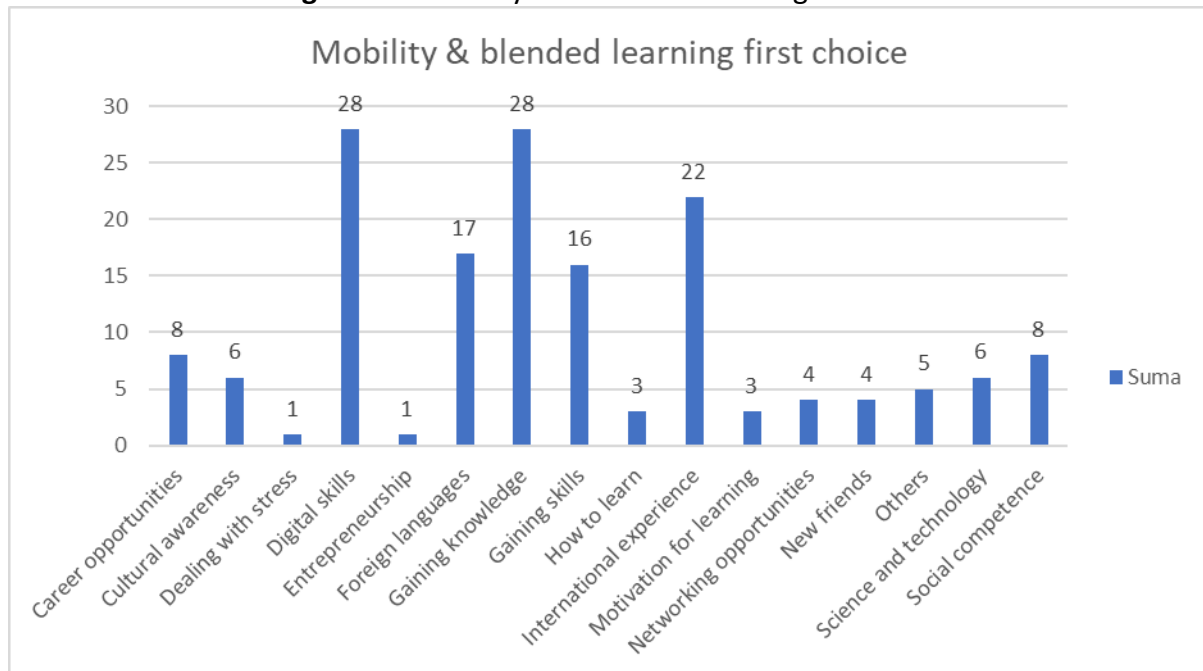
I become more independent; Get a sense of how it is to live alone and in an unfamiliar space; feeling that you could feel "at home" in any place of the world because there are always some lovely people; I developed self-confidence and independence; I was by myself in an unknown country all by myself, without any help; My most positive experience was going to a different city and making it on my own, meaning I could communicate, solve my problems alone in a different language, overcoming challenges; That I discovered that I can take care of myself while living in another country being outside of my comfort zone; I learned that you can feel at home everywhere in this world and what really matters are the people who surround you. I trust in myself more now and that I can have a great life no matter where it will take me; more tolerant of differences and more curious.

In addition to mobility and traditional learning, we asked students about the benefits of mobility and blended learning. Similar to the question regarding the benefits of mobility and traditional learning, we listed benefits that refer to study field (knowledge, skills, networking opportunities), interpersonal issues (new friends, empathy towards others, social skills), career and work digital skills (technology competences), intrapersonal issues (motivation for learning, dealing with stress, entrepreneurship), international experience (foreign language learning, improved cultural awareness).

The most popular benefits marked by students referred to the development of digital skills and knowledge in the study field (28), followed by international experience (22), communication in foreign language (17), improved career opportunities (8), cultural awareness (6), dealing with stress (1), developing entrepreneurship (1), learning how to learn (3), motivation for learning (3), networking opportunities (4) getting to know new friends (4), improved science and technology competence (6), and improved social competences (8).



Figure 11. Mobility and blended learning - benefits



Source: original study

We asked students if in future, there will be an opportunity to take part in blended learning again, would they take part in it for the first time (those that were not taking part in blended learning) and for again in the future (those that were already experiencing blended learning). 83 students (52%) out of 160 answered “Yes” to this question, 29 students (18%) chose “No” and 48 (30%) students marked “I don’t know”.

Those students that would go for blended learning within their mobility justified their decision by saying that they would gain additional digital skills. Digital tools in learning are perceived as being complementary to traditional learning. Examples of students responses:

Learning with digital tools is a new experience; I'm my opinion, learning isn't only done in one way; I think digital tools are, nowadays, essential in education and, therefore, if I were to take part in a mobility experience, I would most likely choose a learning institution that offered such tools; digital tools can be a great addition in broadening the study experience; I would like to take advantage of cost- and time-saving digital ICTs and collaborate with others also offline with a study program that based itself on the benefits of digital technology as well as social offline interaction; My first purpose wouldn't be to have physical mobility because of the digital tools only. In first instance, it's for the physical meeting with people abroad.

Those students that would not take part in blended learning within mobility, justified their choice by stating that they prefer to meet people face-to-face rather than online, for example:

My study field requires physical access to old books and manuscripts for doing my research, but the online tools are good for meetings; I am more interested in the physical mobility itself than on the digital tools I like traditional classes better; I don't like sitting in front of the computer; studying all the time with a laptop is boring.

Some students didn't see developing one's knowledge or skills through digital tools within their study field as an opportunity and responded to this open-ended question with the following explanation:

It is not possible when you study arts; For my choice of study, digital tools aren't particularly important.



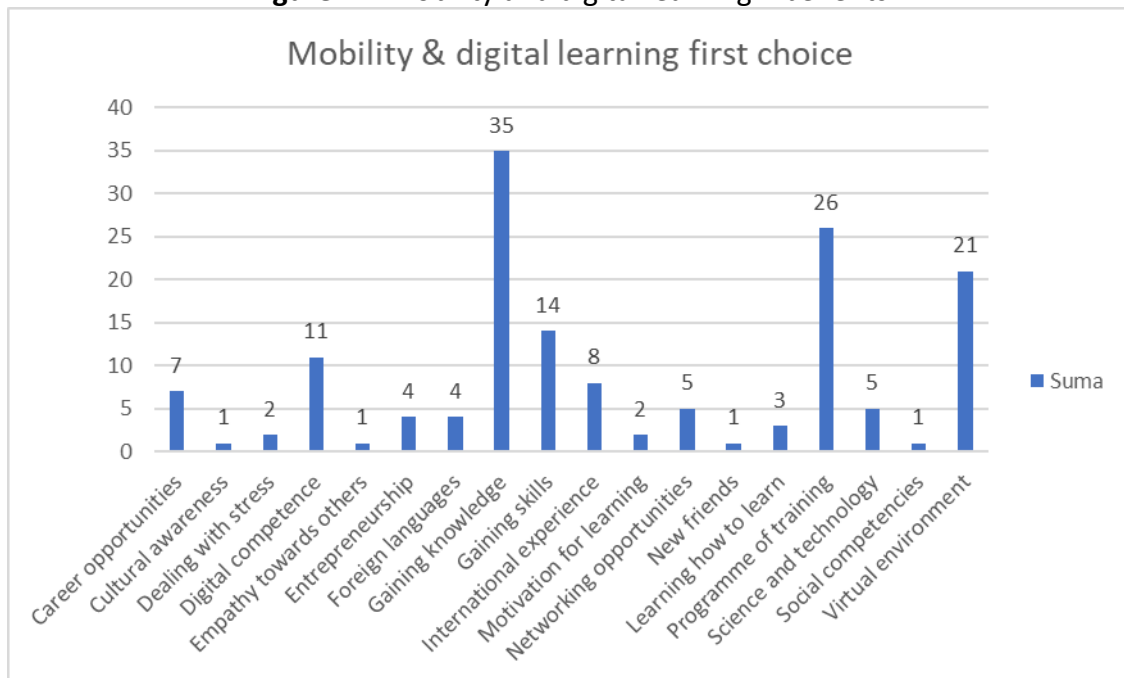
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There were also students that identify blended learning with getting to know new people, country, culture more than with learning within the study field using digital tools. Examples of students' answers:

For me mobility is moving from one place to another; I don't see the point in going abroad and then taking classes online. With online classes you don't meet people, you don't develop social skills and you don't get to know about the culture; I am not interested in traveling somewhere new only to get online classes and none of the actual experiences of studying abroad.

Similar to mobility & physical learning and mobility & blended learning, we asked students what benefits they see in mobility where they use only digital tools. In this option, we explained students this term and told that this covers such situation when they do not go abroad to carry out mobility activity abroad (unlike the physical mobility case) however, they learn within mobility throughout online courses (taken from home, without travelling), led by teachers from other countries, accompanied by simultaneous interactions within online activities with foreign students.

Figure 12. Mobility and digital learning – benefits



Source: original study

Digital learning within mobility is strongly associated with knowledge and skills in the study field. Students choices were related to learning in a virtual environment, gaining knowledge and skills and improved career opportunities.

Students were asked to explain their first choice of benefits for digital learning within mobility. In answering this question, they wrote that they perceive digital learning as an opportunity to find out how it is to learn in a virtual environment. They did, however, see limitations in digital learning such as the kinds of mobility that do not include social interactions. What is interesting, however, is that for some respondents, digital tools offer more options to meet people from different countries. Some students saw opportunities in



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that kind mobility opportunity to study at a university of their own choice (called by one student “prestige university”), which will in their opinion, influence their career opportunities. Examples of their justifications:

Knowledge in the study field from digital tools does not offer social interactions and social life; I believe that physical mobility is the richest and digital learning would lack in most of the other aspects, such as making friends, the social and the learning side from that experience, and so knowledge would definitely be the most relevant; , I would only take part if the course was lectured by a prestigious university;

For some of our respondents, digital learning within mobility supports social interactions, social life, knowledge in the study field, interesting programme and courses, learning and career, and is perceived as modern way of learning. A few examples from questionnaires, show how students describe their expectations of learning with digital tools during mobility:

Contact with different people from different countries at once would be more accessible via digital tools. I would probably be looking for knowledge in my study field to which I wouldn't have access in my country/home university. I would only do online mobility if I thought that I would gain valuable knowledge in my field; interesting to have professors from all over the world; It is important to learn how to learn in different environments and to adapt to it; I believe I would have the opportunity to learn about my study field from a different perspective and learn how it works internationally; Without an interesting programme I would probably not have the motivation; The programme content is the most important part to me if I do not live in another country; If I get stuck at home, an interesting program is all the more important; because that is a very different way of learning and so it might stimulate more learning; we should find new ways to learn; E-learning is such a trendy thing; future; nowadays, most employments require knowledge of digital tools; Important for future career, to have better chances to obtain and develop global business employment contacts; Because it makes the experience richer in the future; Because I want to develop my skills to get a better job in the future; career defines our world the most nowadays; this can be helpful for my future; Learning and acquiring new skills are one of the biggest advantages of mobility, as they offer an advantage at a career level in the future;

III.4. Mobility, learning and needs

In relation to learning, we asked students about their expectations, and what knowledge, skills and attitudes are necessary to take part in mobility.

In relation to mobility and traditional learning and knowledge, students said that knowing about pragmatic issues is necessary.

- a) Living in a foreign country, examples of their answers: *It helps if you know something about how to rent a flat/ shared house/ student accommodation; what financial resources are sufficient to live and study;*
- b) Study curriculum and plans, how university works: *knowledge about the area of studies; basics of the curriculum at school; work culture of the host institution,*
- c) Knowledge in the study field: *If you truly want to improve in your field of study, you need good language competence and solid knowledge in your area to be able to follow the courses effectively.*

Regarding skills, for students the most important are

- a) Emotional resilience, examples of students answers: *learning how to calm down when facing something unpleasant is crucial; how to deal with unexpected problems when living abroad; Skills help to adapt quicker, adaptation skills, self-consciousness: to know yourself well is an asset if you are abroad;*
- b) **Open-mindedness** to a new life environment: *country, people, university; willingness to challenge, motivation; socializing, problem solving skills; it is good to know about privileges, inequalities, racism, sexism and how to deal with (reverse) culture shock; willingness to challenge,*
- c) Language skills: *basic English, destination country's language;*
- d) Communication skills: *how to communicate with others, whether or not you know the language;*



- e) **Social skills:** *it helps to have a nicer experience if the person is outgoing, to be open to new people, cultures and adventures; dealing with different cultures and ways of living, being social, to be open for getting to know new people; how to meet new people, ability to cooperate in a group;*
- f) **Intrapersonal skills:** *adaptability is essential; being organised, knowing how to deal with stress, having a proactive attitude, being capable of dealing with problems alone; confidence; you should be curious and eager to improve yourself to be able to get through a mobility period; time management; time-management skills; coping with obligations, dealing with stressful situations, good organisational skills; basic problem-solving skills, planning and organisational skills; how to solve problems.*

We asked our respondents what attitudes are required to take part in physical mobility. Students mainly mentioned:

- a) **Tolerance:** *you need to be open-minded towards different opinions, ways of life; respect different cultures, tolerant, emphatic meaning to be able to talk to different people with different perspectives and ideas, without prejudices; We must be tolerant;*
- b) **Openness to new challenges in life:** *responsible for their own future, to be a proactive, hard working person, brave enough to live far from what your comfort zone; to be open to unexpected situations is necessary, this openness will help to reduce the personal, emotional and stress cost a lot, to not start panicking if things go wrong and to keep cool is a helpful attitude; to have courage;*
- c) **Openness to new culture:** *willingness to try new things; interested in new experiences with traditions of other countries; you need to respect the other country's mentality and be willing to adapt yourself, you have to be open to new cultures, new norms, understanding, accepting them, readiness to meet new people;*
- d) **Motivation for learning:** *to learn new skills; listening, thinking critically and questioning your own beliefs; willingness to learn, openness to new experience in learning.*

In relation to mobility and blended learning, knowledge was referenced by students in terms of field of study, skills needed to use digital tools and communicate with others within the course, interpersonal attitudes (problem solving, communication with others) and intrapersonal attitudes (motivation for learning, being open to challenges in relation to a new learning environment). There were also students who believed that the same knowledge is needed for traditional learning. Examples of statements from surveys:

- a) **Skills:** *Skills to learn independently; ability to deal with problems when we are studying or are left alone with problems; Patience and the ability to motivate yourself; communication skills, skills for your daily life; to establish interpersonal contacts; Basic problem-solving skills; Independence, Skills to write official letters and other documents; ability to learn by oneself and motivate oneself are important; organization skills; Basic project and time management; how to communicate with others; Basic computer skills; Technology and I.T. skills; handling of any problem; skills needed to address digital tasks, how computers and other devices work.*
- b) **Knowledge in the study field:** *subject knowledge; knowledge from the thematic area around the study field; knowledge that is related to my study field is necessary.*
- c) **Interpersonal attitudes:** *Respect for the work of others.; Tolerance for others;*
- d) **Intrapersonal attitudes:** *Desire to learn; autonomy and responsibility, openness to new learning opportunities; Interest, curiosity, Motivation to learn; willingness to learn and motivation; open-mindedness, resilience and perseverance; being able to some spend time alone due to being in a new surrounding; patience, being optimistic to connect to people on a screen; Patience and discipline; open to new experiences*
- e) **Openness to digital learning environment:** *you should be open to new digital learning methods and work a lot with your laptop; positive attitudes towards technology, general open attitude as well as willingness to learn using digital tools; open-minded attitude towards technology; being interested in new digital tools. You need positive attitudes towards digital education and the target culture*
- f) **Positive attitudes towards learning:** *motivation, to be eager and motivated to learn; a high level of motivation and engagement are crucial; constructive listening; Curiosity is important. The more curious you are, the more you want to learn, the wider your knowledge and skills you will have.*

In relation to mobility and digital learning, students said that basic knowledge and skills that are required would focus them on how to use learning platforms online (risks and



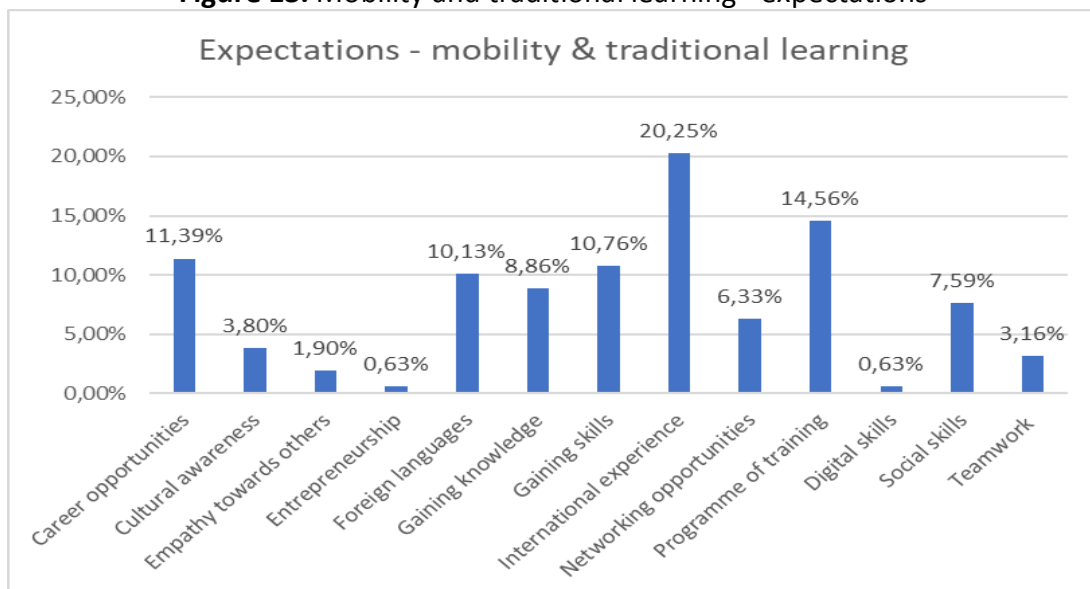
advantages), how to work independent, languages, open access digital tools (i.e. library).
Examples of students' answers:

computer skills; digital literacy; organizational skills, Self-coordination, discipline time, management inspiration, motivation, openness towards new experiences; being open-minded and being open, being flexible; High self-discipline, being organised, having a strong motivation; Self-organization, time management, self-motivation willingness to work by oneself.

III.5. Mobility, learning and expectations

With regard to students' expectations of mobility and traditional learning internationally, (20,25%) mentioned an interesting training programme (14,56%), development of career opportunities (11,39%), development of skills in the study field (10,76%), learning foreign languages (10,13%), development of knowledge in the study field (8,86%), development of social skills (7,59%). Less than 5% expected development of teamwork competence, entrepreneurship, cultural awareness, and digital skills.

Figure 13. Mobility and traditional learning - expectations



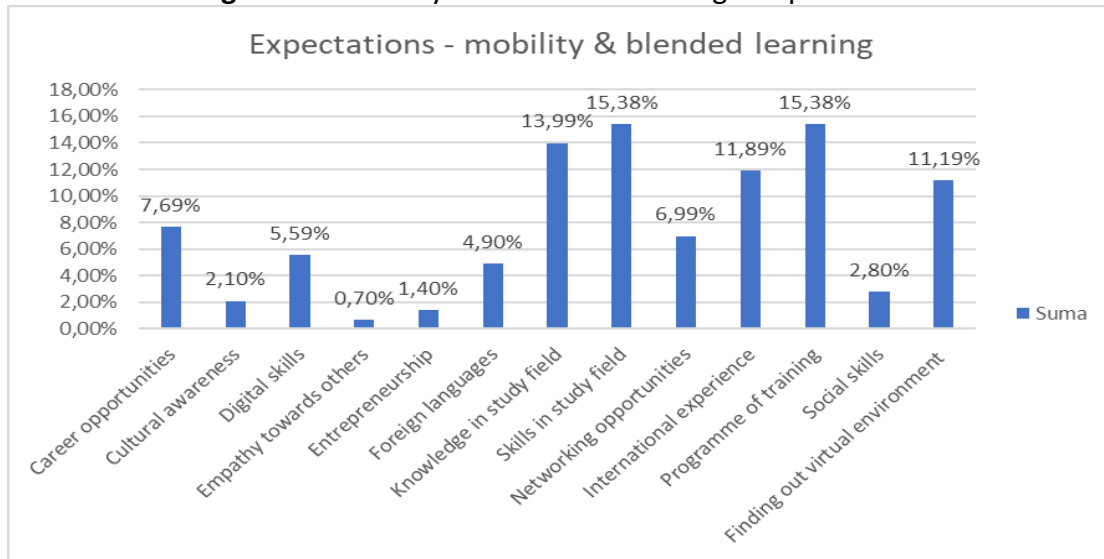
Source: original study

We asked students what they expect from participation in mobility and blended learning. What was interesting for students was development of the study field and an interesting training programme. These were the most important for them. (15,38%) for them, knowledge in study field (13,99%), gaining international experience (11,89%), finding out how it is to learn in a virtual environment (11,19%), career opportunities (7,69%), networking opportunities (6,99%), development of digital skills (5,59%).



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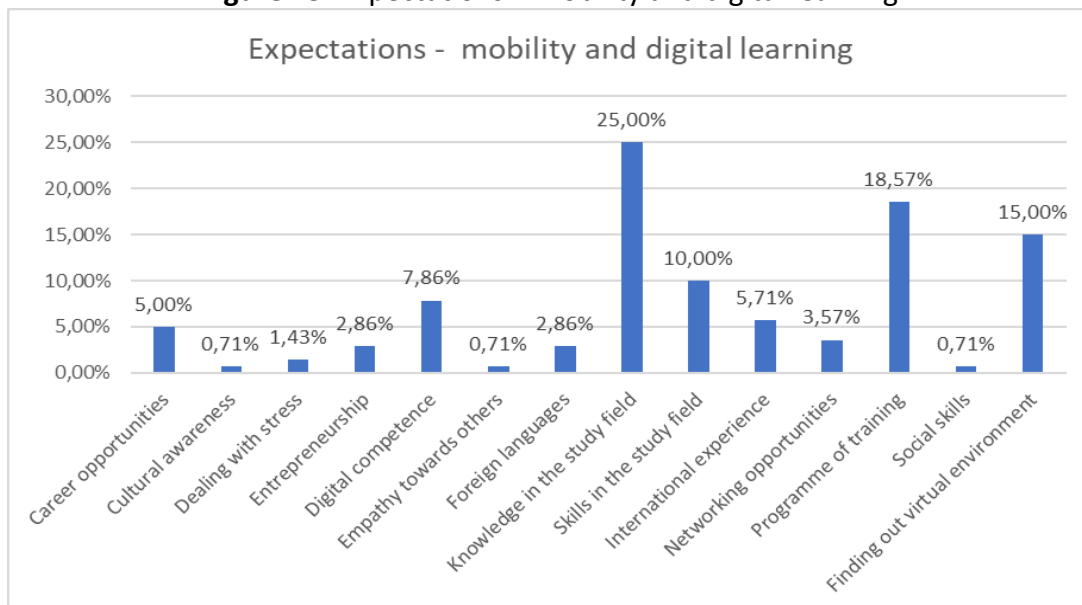
Figure 14. Mobility and blended learning – expectations



Source: original study

In relation to expectations towards mobility and digital learning, the most popular expectations students have had in relation to developing knowledge in the study field (25%), an interesting training programme (18,57%), learning in a virtual environment (15%), skills in study field (10%), development of digital competencies (7,86%), international experience (5,71%) and development of career opportunities (5%). Fewer than 5% of students referred to development of cultural awareness, dealing with stress, entrepreneurship, empathy networking opportunities, social skills and learning foreign languages.

Figure 15. Expectations – mobility and digital learning



Source: original study



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We asked students in an open-end question to explain their choices. What was strongly visible was the association of digital knowledge and skills with the development of knowledge in the study field, improvement of future career opportunities and the development of new learning methods. The distinctive feature of expectations as far as mobility is concerned is an interesting programme of study in this kind of digital mobility. Examples of students' answers:

I'm interested in finding new methods of learning; I would probably be looking for knowledge in my study field to which I wouldn't have access in my home university; I would only do online mobility if I thought that I would gain valuable knowledge in my field by learning in a virtual environment because it makes the experience richer in the future; I believe I would have the opportunity to learn about my study field from a different perspective and learn how it works internationally; Because that is a very different way of learning and so it might stimulate more learning; course content would be the most important part to me if I did not live in another country; New ways of studying/teaching; If I get stuck at home, an interesting programme is all the more important; the better opportunities you could have later; it has to be a specific knowledge-oriented programme.

Students also saw opportunities to develop social relations and communication with others via online tools. Examples of students answers:

The most interesting part of such mobility would be having to learn in a virtual environment, and develop digital skills; Contact with different people from different countries at once would be more accessible from digital tools; to be able to communicate with others.

IV. University staff questionnaires analysis

The study, which used a questionnaire with open-end and close-end questions, was conducted between April and May 2020. It aimed to identify the experiences and expectations of Higher Education staff (administrative staff and academic teachers) with mobility and three types of learning: traditional learning, blended learning and digital learning.

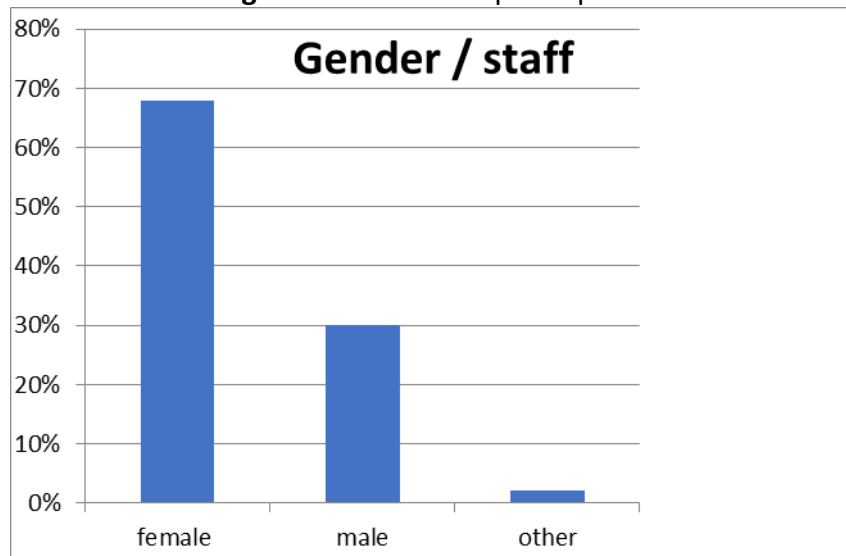
IV.1. About study participants

The study, which used a questionnaire with open-end and close-end questions, was conducted between April and May 2020. It aimed to identify the experiences and expectations of Higher Education staff with mobility and three types of learning: traditional learning, blended learning and digital learning.

103 staff members responded to the questionnaire: 68% females, 30% males, other than female or male gender was declared by 2%.



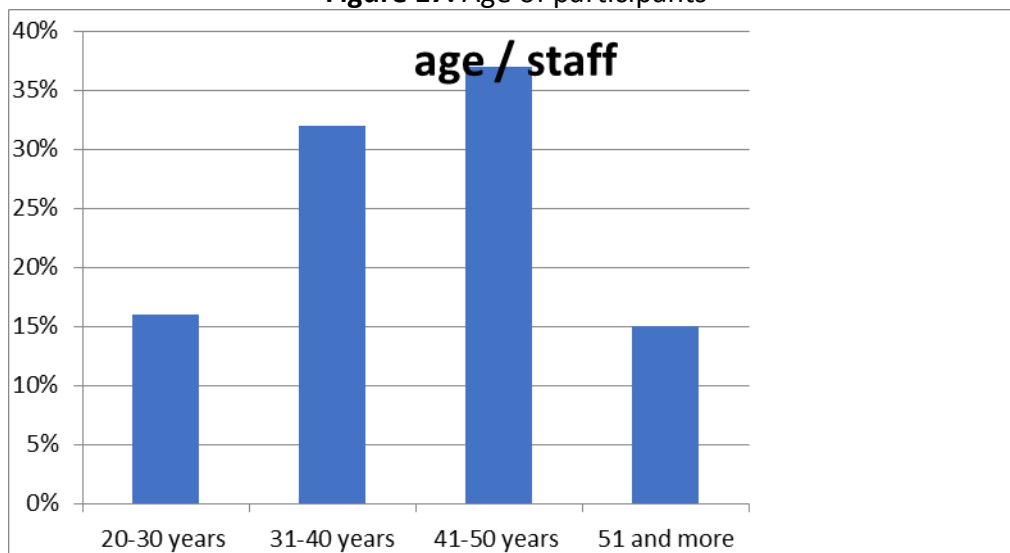
Figure 16. Gender of participants



Source: original study

University staff members: 16% were 20-30 years of age, 32% were 31-40 years old, 37% were 41-50 years old and 15% more than 50 years of age.

Figure 17. Age of participants



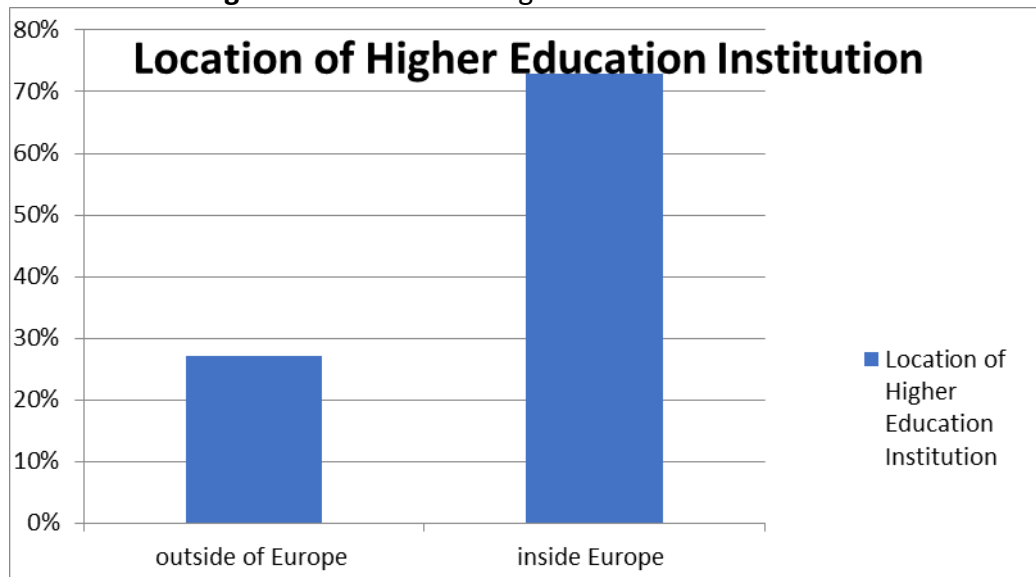
Source: original study

73% of respondents came from a Higher Education Institution (HEI) located inside Europe, 27% from outside Europe.



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Figure 18. Location of Higher Education Institution



Source: original study

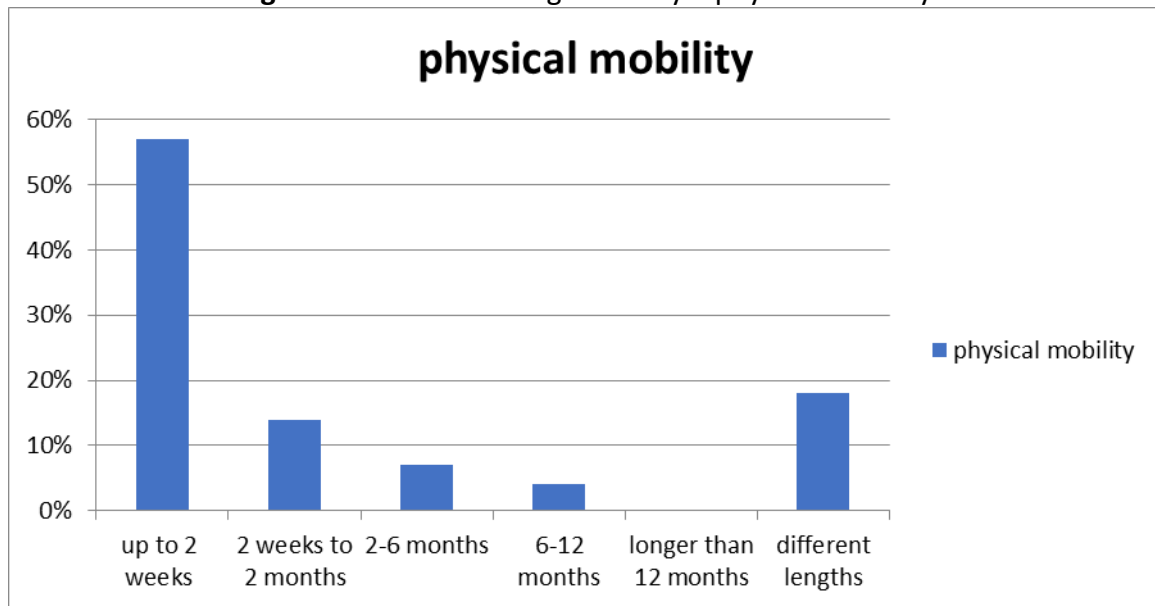
IV.2. Mobility, learning and how long is (not) too long

HE staff members prefer short-term forms of mobility and learning. In every mobility scheme, the respondents indicated up to 2 weeks as being the most favorable, specifically: 37% in the case of blended mobility, 43% in the case of digital mobility and 58% in the case of physical mobility. From 2 weeks to 2 months was in second place among the answers in the case of blended and physical learning. Significantly fewer respondents indicated longer than 12 months. The HE workers would be the least willing to leave for longer than 12. The general conclusion is that short-term or medium-term mobility is the most preferred and long-term mobility is the least. Such preferences can be explained by the fact that administrative staff and academic teachers – most of whom are women – have families and cannot afford to be away from home for long periods. Another explanation may be the fact that you are away from work for a long time, which may result in a piling up of tasks and the need to work off the classes. The detailed distributions of answers are presented in the charts below.



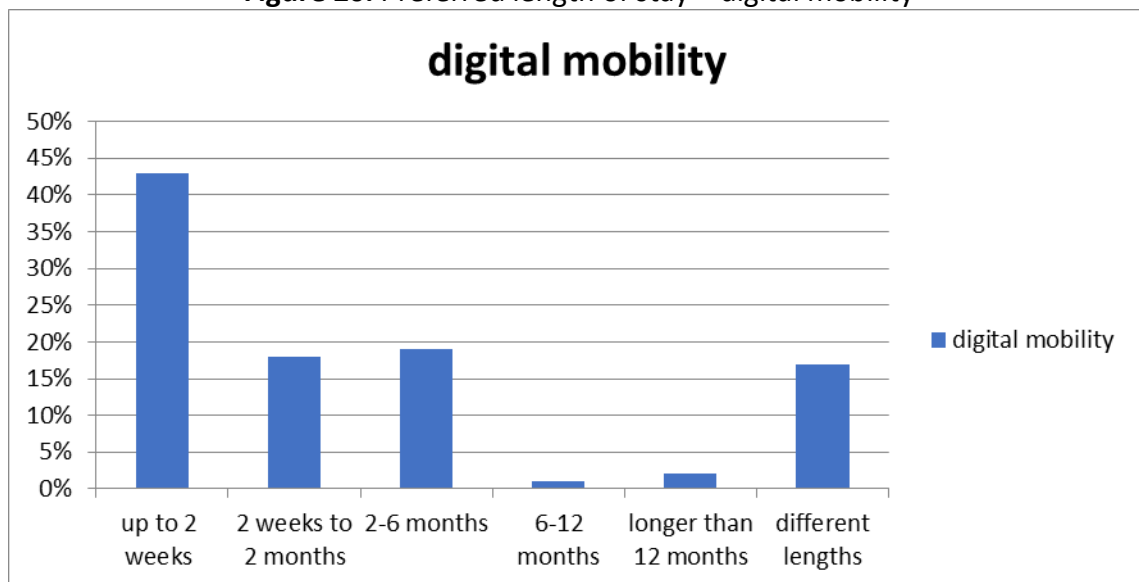
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Figure 19. Preferred length of stay – physical mobility



Source: original study

Figure 20. Preferred length of stay – digital mobility

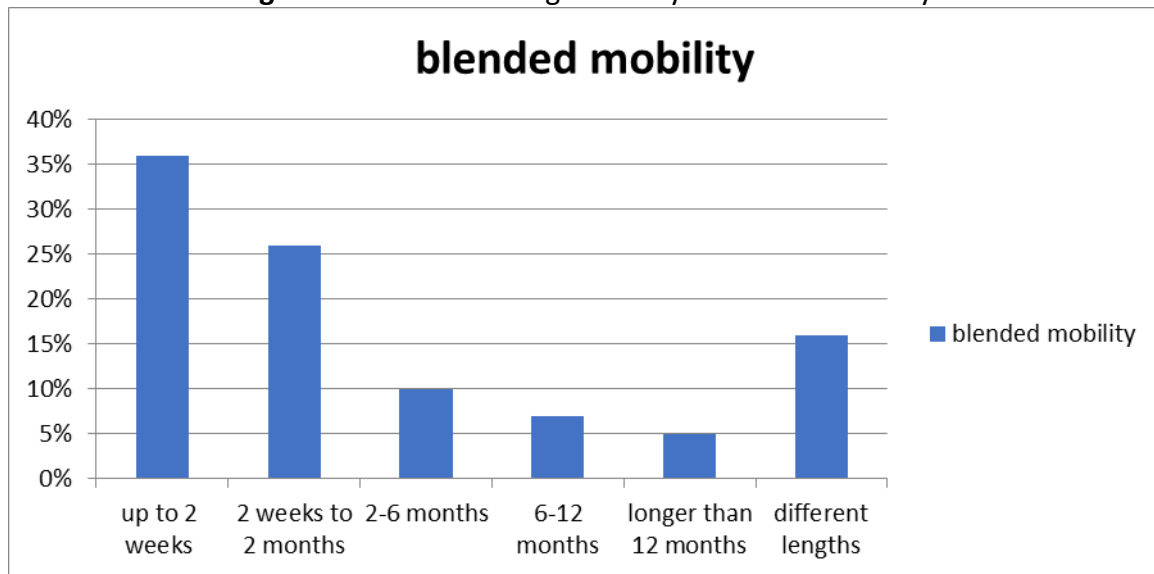


Source: original study



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Figure 21. Preferred length of stay – blended mobility



Source: original study

IV.3. Mobility, learning and benefits

Learning in the workplace allows employees, societies and countries to meet the challenges of the present day, such as rapid technological development, the globalization process and progressive socio-economic and cultural changes.

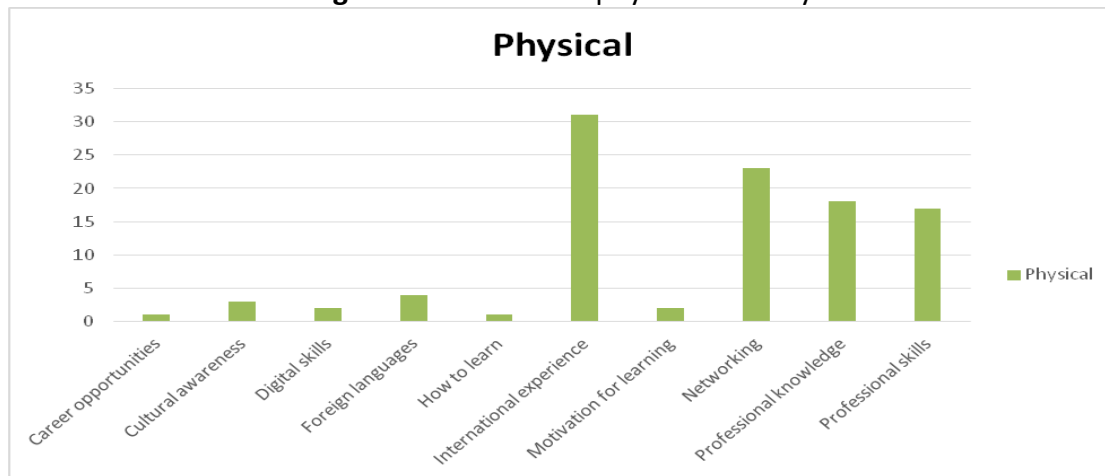
It enables people to improve their qualifications and training after completing formal education. It can be done by participating in courses and training, as well as completely independently, e.g. by watching instructional films and reading books. This idea applies to all fields of knowledge and areas of activity. It leads to an increase in abilities, and thus an increase in attractiveness and value on the labour market or, in the case of people considering changing jobs or returning to the market after a long break, it enables them to acquire new skills and change sector. Due to economic and economic changes, the learning of employees in various types of institutions has become a requirement for proper functioning. That is why not only the obtained diploma and education count, but also the willingness and predisposition of employees to learn, take up new challenges and go beyond the usual patterns. Organizational solutions that support this include the mobility of employees, organized by the institutions in which they work; both traditional (physical) mobility and mobility in the virtual world, as well as mixed mobility, which consists in combining physical and virtual mobility.

In the case of physical mobility, the dominant indication was international experiences (31%). Online networking was in second place (23%). It turned out that professional knowledge and professional skills are also important. The other benefits were of little importance.



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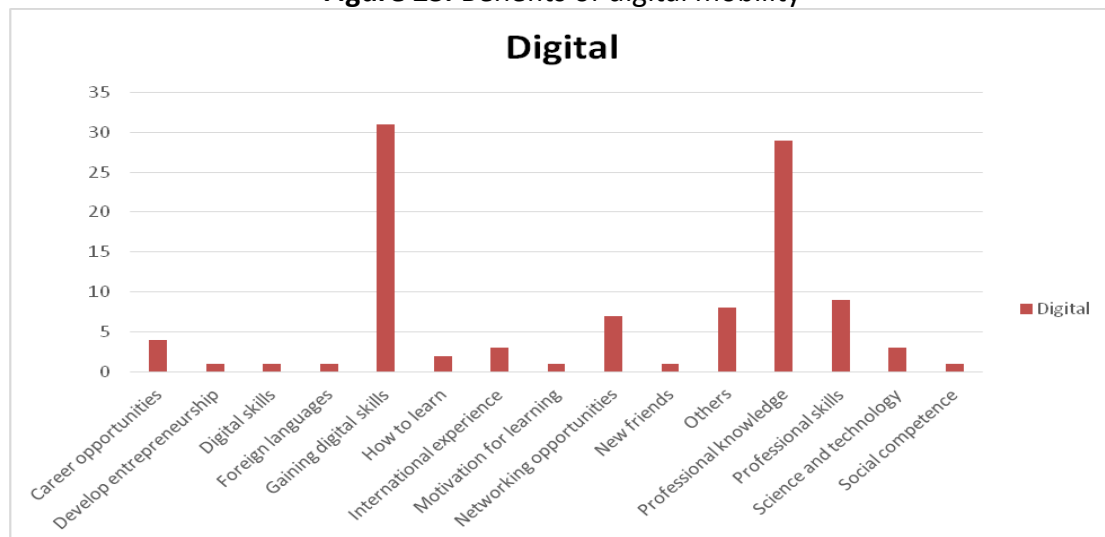
Figure 22. Benefits of physical mobility



Source: original study

The responses in the case of digital mobility were slightly different. Dominant among the answers were gaining digital skills (31%) and professional knowledge (29%). The average values were professional skills (9%), networking opportunities (7%), and others (8%). The remaining responses received less than 5% of responses.

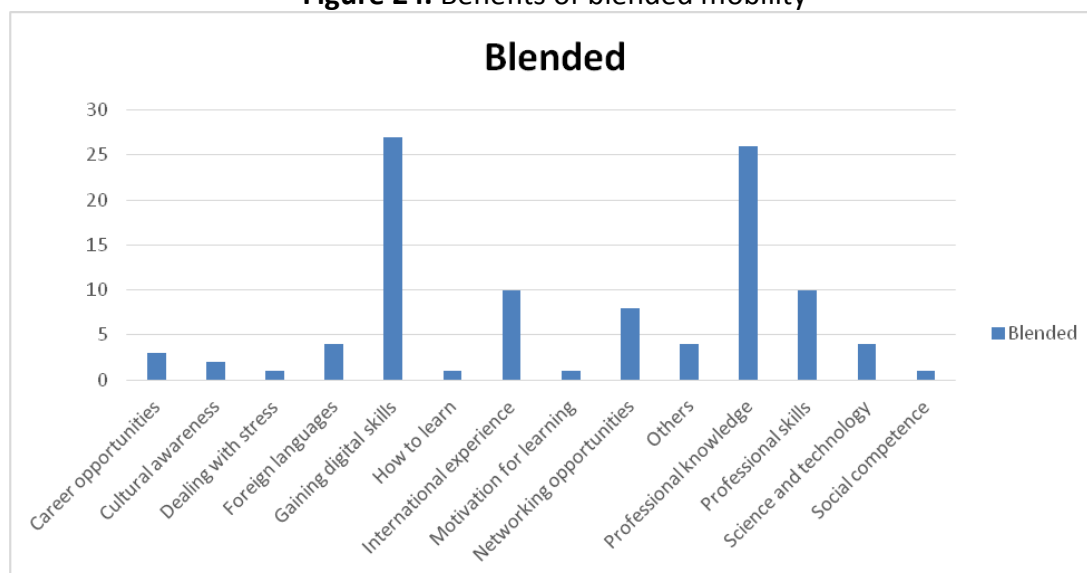
Figure 23. Benefits of digital mobility



Source: original study

Responses about blended mobility were very similar to digital mobility, however, there were slight differences. International experience was of greater importance (10%), and foreign languages skills (4%).

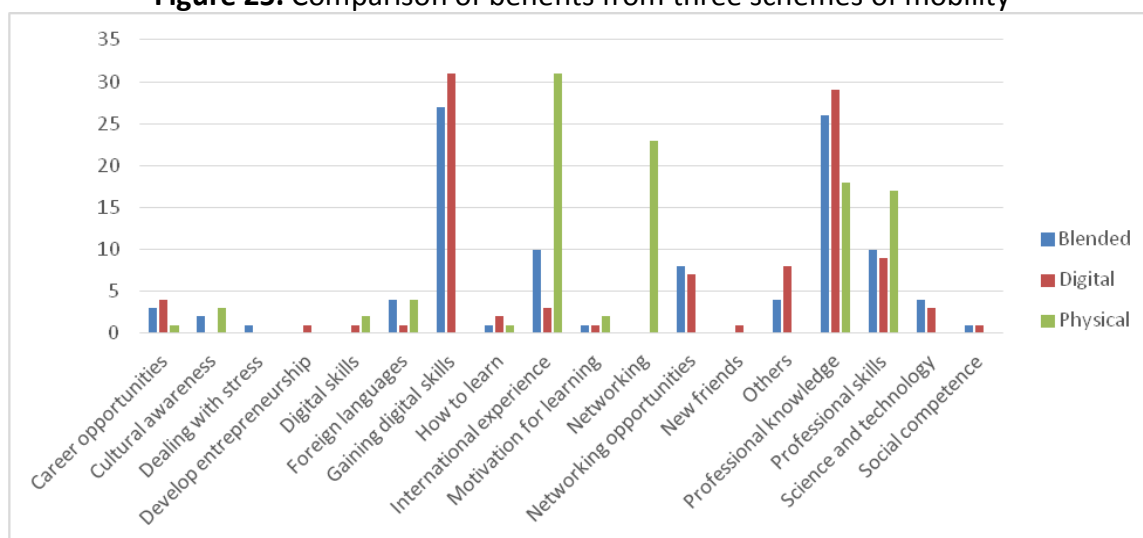
Figure 24. Benefits of blended mobility



Source: original study

By comparing the benefits of the three mobility schemes presented in chart 19, it is possible to formulate the conclusion that in terms of the benefits, blended and digital learning are similar. On the other hand, the benefits of physical mobility and learning are significantly different.

Figure 25. Comparison of benefits from three schemes of mobility



Source: original study



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IV.4. Mobility, learning and needs

In relation to learning, we asked staff, what knowledge, skills and attitudes are necessary to take part in the three schemes of mobility. The general tendency is that in their opinions, the knowledge, skills and attitudes needed for digital mobility are similar to the knowledge, skills and attitudes needed for blended mobility. In both schemes of mobility, digital knowledge and ICT knowledge and skills are needed. In terms of attitudes, the importance of having a positive attitude toward the learning process and digital tools was emphasized. The answers to physical mobility questions were slightly different. Language, social and communication knowledge and organizational skills were considered the most needed. With regard to which attitudes are necessary, the answers were: open-mindedness, motivation to finish the mobility programme, respect and empathy.

Figure 26. Knowledge, skills and attitudes needed for the three schemes of mobility

NECESSARY TYPES OF MOBILITY	KNOWLEDGE	SKILLS	ATTITUDES
PHYSICAL	<p>Language basics, and knowing at least a bit regarding the host.</p> <p>Cultural and social knowledge of diverse cultures.</p> <p>Knowledge in my own field as a professor and researcher.</p> <p>You need to share your knowledge. It's necessary. Otherwise, it would not be possible to integrate the themes or conferences to participate in. Knowledge about the background of the subjects or courses to be attended.</p> <p>It is necessary to have knowledge about the topic that will be discussed during the mobility, general knowledge of the Institutions (Home and Host), about the host country and culture.</p> <p>Knowledge related to the type of visit... scientific... cultural... otherwise no profits can come from it.</p> <p>It's important to prepare very well for the physical mobility. It is an important opportunity and should be prepare in</p>	<p>Language, social and communication skills.</p> <p>The concept of skill is closely related to the ability to perform a specific task at a given target level. In this case, the teaching, artistic and investing experience associated with the quick ability to understand the place where you are, that is, the ability to adapt are fundamental skills.</p> <p>Soft skills</p> <p>Practical skills to deal with teaching in other language and adapt your teaching to diverse students. Otherwise, it would be impossible to understand the discourse related to the profession.</p> <p>You need to, at least, have some languages skills.</p> <p>During the mobility I think we should have communication skills, organisational skills, and some technical skills.</p> <p>Ability to organize yourself; ability to deal effectively with bureaucracy; ability to be fully open to new experiences.</p>	<p>Open mindedness.</p> <p>Being open-minded.</p> <p>Openness to new methods.</p> <p>Patience and positive attitude to the learning process.</p> <p>A feeling that the course / leaning is needed.</p> <p>Above all motivation to finish the mobility programme.</p> <p>You should like digital tools.</p> <p>Willingness to learn, regularity, motivation for self-study.</p> <p>Respect, empathy, and openness.</p> <p>Openness, capacity to take risks.</p>



	<p>advance.</p> <p>Speaking English or some other language allowing for communication</p>	<p>Empathy, communication, knowledge and skills to work in a group.</p> <p>Adaptability, flexibility.</p> <p>Depending on the mobility that you are going to do. If I am going to conduct a practical workshop in a specific area, I need to know what I am doing, and what is necessary to have a successful outcome</p> <p>Language, social, empathy and need to learn more.</p>	
DIGITAL	<p>Necessary digital knowledge or experience.</p> <p>Knowledge of the digital tools.</p> <p>Only basic ICT knowledge.</p> <p>IT knowledge.</p> <p>Computer knowledge and language skills (English).</p> <p>Self-organization ICT and language.</p>	<p>Depends on the topic.</p> <p>The same as for other types of mobility.</p> <p>Digital skills.</p> <p>ICT and language skills</p> <p>Basic ICT skills</p> <p>Some ICT skills.</p> <p>A minimum level of digital skills is required to carry out this modality.</p>	<p>A feeling that the course / leaning is needed.</p> <p>Open mindedness.</p> <p>Willingness to learn, regularity, motivation for self-study.</p> <p>Motivation to finish the mobility programme.</p> <p>You should like digital tools.</p> <p>Patience and positive attitude to the learning process.</p> <p>Patience and focus.</p>
BLENDED	<p>You will have to understand online tools.</p> <p>Knowledge in using the tools.</p> <p>To be able to share and take part in discussions.</p> <p>The same as for physical mobility.</p> <p>Minimum digital knowledge is required.</p> <p>some technical knowledge and competence is needed.</p>	<p>How to work within digital platforms.</p> <p>Social and language skills.</p> <p>Some ICT skills.</p> <p>Digital skills, good communication and intercultural skills.</p> <p>Speaking languages, English at least, should be needed.</p> <p>Computer skills and English language skills.</p> <p>Self-organization, ICT skills.</p> <p>You will have to understand online tools.</p>	<p>Motivation for self-development, meticulousness, diligence.</p> <p>Respect and ability to work with others.</p> <p>Tolerance.</p> <p>Positive attitude to facing challenges.</p> <p>To be proactive, willing to learn new tools, respectful and open minded.</p> <p>Openness.</p> <p>Positive attitude towards new challenges.</p> <p>Open-minded, disciplined, curious.</p> <p>Openness, willing to network, curiosity.</p> <p>Being open-minded and sensitive to other points of view.</p>

Source: original study

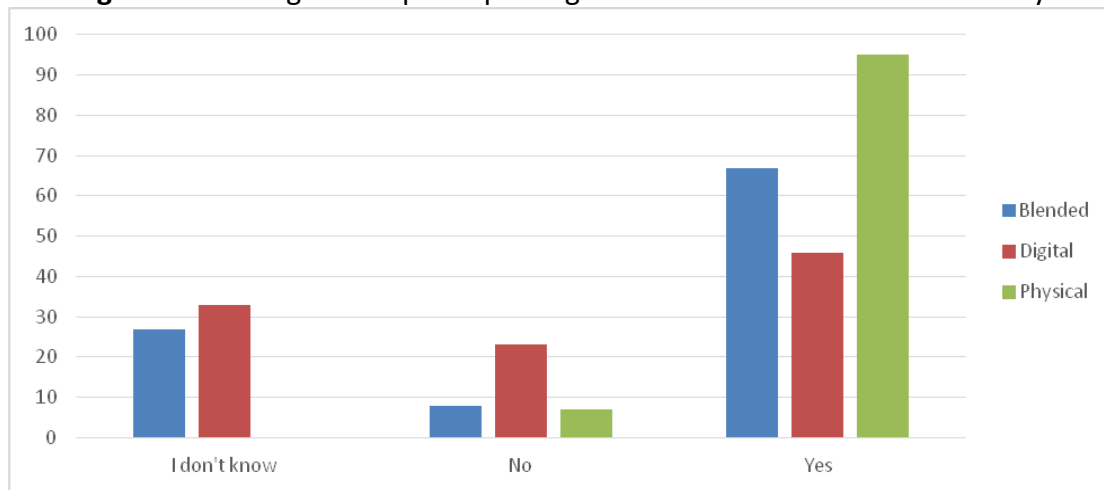


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IV.5. Mobility, learning and expectations

Most respondents (96%) would like to take part in physical mobility again. In second place was blended mobility (68%) and in third, digital (47%). The largest number of respondents expressed their reluctance to participate in digital mobility (22%). There were definitely fewer people reluctant to take part in blended mobility (8%) and physical (7%). Assuming that the willingness to participate again is a measure of the attractiveness of mobility, it can be concluded that for the respondents, physical mobility was definitely the most attractive. Most Higher Education employees would like to take part in it again, and only a few percent would not. At the same time, the fewest number of workers would like to take part in mobility again and most would definitely not.

Figure 27. Willingness to participate again in the three schemes of mobility



Source: original study

V. Conclusions

V.1. University students' questionnaires analysis

1. Previous studies on mobility and learning suggest that a student's mobility has an impact on his or her personal adaptability, by which is meant, on the individual's personal knowledge, and attitudes toward meeting the demands of the situation (Clarke 2017; Fugate et al. 2004). Fugate et al. (2004) claim that personal adaptability to new life circumstances is represented by five characteristics: propensity to learn, optimism toward challenges, openness to changes and new experiences, internal locus of control, and generalized self-efficacy (p. 22). Our study extends these findings and shows that mobility programmes with traditional learning opportunities help students to develop their resilience and adaptability to cope with challenging situations. In this understanding, international learning



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- experiences support social and interpersonal skills development, and help participants to see their own life with greater perspective and distance.
2. Previous studies on mobility in HEI (i.e. Clarke, 2017; Fugate, et al. 2004) have emphasized that students became more resilient and more self-sufficient after participating in a mobility programme. Our study shows that digital learning environments within mobility programme support students' motivation to learn, and independence in gaining knowledge in their chosen field. In blended and digital learning, the online courses of which are characterized by their innovative pedagogical and assessment practices, students are required to be able to adapt, and more specifically to adapt to a challenging academic environment. In other words, a challenging learning environment helps students become more autonomous in their learning, and more willing to open up to meeting the challenges encountered in various educational settings.
 3. By drawing on the survey, four forms of traditional learning can be distinguished:
 - (1) adjusting, where students, in a lot of cases for the first time, were living away from their families and adjusting to cultural differences
 - (2) borrowing, where students take on specific strategies from other countries (home country) and try to adapt them to their contexts of studying at the host university;
 - (3) co-construction, where students develop strategies for problems that occur when studying at the host university;
 - (4) non-curricular focusing, where students focus more on developing their interpersonal and social skills.
 4. Prestige universities, world rankings or "world-class" education becomes 'less a means to an end and more as a [symbolic] object of desire in itself' (Hansen and Thøgersen 2015, 6, referring to Kipnis 2011). The individual and structural context, in which students' choices of university destinations operate, framed as "push-pull factors," are perceived by Mazzarol and Soutar (2002) as a combination of economic and social factors. Our study shows that the push factors of mobility with the digital environment are courses offered by prestige universities, which according to our respondents, would certainly affect their career and employability. In addition, students believe that by mobility, where only online courses are offered, there is no costs for travel or accommodation, as online courses can be taken from home with no additional expense. In other words, when considering participation in different mobility schemes, mobility with digital learning (digital courses) is being perceived as more advantageous for students because of (1) the economic factor of digital mobility: the economic side of mobility with no accommodation costs in the foreign country, and (2) the career factor of digital mobility: obtaining a qualification that would make students stand out from other graduates in their chosen labour market. This conclusion confirms previous findings that career identity is a compass for students' and graduates' actions to achieve professional goals (Fugate et al. 2004; Waters, 2009) and economic factors play an important role in students' choices (Mazzarol and Soutar (2002).

5. In contrast to traditional learning, students within mobility that includes blended and digital learning are more focused on knowledge and skills development in the study field, and their learning is visibly focused on intrapersonal development and learning skills: motivation for learning, problem solving, time management, independent project work, planning. Distinctive feature of blended and digital learning within mobility are
 - (1) systems thinking, in which the experience of seeing how other universities have devised online systems/online courses/online working philosophy shapes how students understand those in their own universities,
 - (2) self-directed learning, where the student as an individual takes independent and self-directed initiatives in identifying their needs (career opportunities), devising goals (to extend study knowledge), recognizing material (online resources), and human (the need to ask questions),
 - (3) course content focus, where students focus more on curricular activities
6. Blended and digital learning is being experienced as being more visual (learning by seeing), with the need to involve a more auditory style of learning (learn through listening, listening to others, interactions with the teacher). Students have the need to visibly express themselves during online courses, which as they explained, was not often possible within the courses they experienced during their past mobility that had included traditional learning without digital tools. For them, digital learning means translating new context (*intranationalization*; translation by applying information received from course content / document) to own activity and extension of the course content (*externationalization*), meaning oral expression, like discussing.
7. In traditional mobility, students become part of international communities, which enables them to recognize their different strengths and weaknesses and become participants of learning in a mutual exchange. Learning in this traditional environment puts emphasis on the processes where problems are being solved (emphasis on extra curricula activities). In this understanding, social, interpersonal and academic skills are incorporated into learning within traditional mobility courses and are perceived as a personal success with outcomes such as independence in living without parents abroad. Digital environments of mobility divert the focus onto product, increase of knowledge and skills in the study field and course content (emphasis on curricular activities).
8. Learning with digital tools supports shorter mobility schemes (2 weeks to 2 months). In contrast, traditional learning within mobility supports mid-term mobility schemes (2-6 months).

V.2. University staff questionnaires analysis

1. Contemporary universities are very complex organizations with multi-threaded intertwined processes and structures that have to cope with the changing conditions of functioning and meet the students' requirements.



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2. Higher education administrative staff and academic teachers are one of the professional groups whose workplace conditions and requirements have changed in recent years and continue to change within the structure of university administrative staff. Mainly due to globalization, the university has become an entrepreneurial institution governed by the laws of academic capitalism (Clark, 1998). The traditional (bureaucratic) model of the university has been replaced by a management model. It has become important to improve the quality of officials' work by increasing student orientation, supporting researchers and increasing efficiency in obtaining grants. The implementation of these demands requires new knowledge, skills, competences and styles of administration from administrative staff and education from teachers.

3. One of the organizational solutions conducive to learning is mobility.

4. The surveyed university employees prefer short-term mobility, not longer than 2 weeks. They indicated international experience as the main benefit of physical mobility, and digital skills and professional knowledge as the main benefits gained from digital and blended mobility.

5. Requirements for digital and blended mobility were similar, but for physical mobility, they were different.

6. The best impressions and experience come from physical mobility. All respondents expressed their willingness to participate in this form of mobility again. On the other hand, the remaining forms of mobility were rated much lower.

7. Therefore, it should be stated that blended and virtual mobility are beneficial in some respects, but are not substitutes for physical mobility.

8. The three mobility schemes studied here are different ways of experiencing the world and learning. Therefore, they should be implemented in parallel, and not on the basis of alternatives.



Part 2

Focus Group Interviews

I. Methodology

I.1. Concept for analysis

In contemporary educational research, there are two main approaches: a quantitative and a qualitative one.

The first approach – the quantitative research – is based on positivist philosophy, assuming the existence of an objective world and the possibility of getting to know it with the help of precise tools.

The second approach – the qualitative research – removes the division between the researcher and the social and cultural world. In this approach, 'soft' methods are used, which can be changed and transformed in order to see aspects on the studied phenomenon that could not be predicted by the researchers at the planning stage.

Both approaches have their advantages and disadvantages, but both also contribute to gaining educational knowledge.

Our research was conducted using the second approach – a qualitative research (method). Qualitative research can be understood as a method of empirical research of the social, cultural and individual world arising from the critique of positivist methodology developed by natural sciences. They are based on the assumption of insufficiency and, in many cases, inadequacy of research procedures developed by the natural sciences to study social and cultural processes and phenomena. This is a very general understanding, but it reflects well the specific nature of the qualitative approach, which consists in the fact that "qualitative research can be conducted in a dozen different ways, many of which have a long tradition" (Miles, Huberman, Saldana 2014: 37).

In the qualitative research, it is assumed that the social world is not an empirically measurable world, and society is not the sum of physical units. Social processes and the behaviour of individuals can only be understood, explained and described through embedding in culture, because it is the axionormative matrix of the behaviour of individuals. The theoretical foundations of this assumption have their origins in phenomenology, hermeneutics and symbolic interactionism.

In qualitative research, the method of researching the social and cultural world is derived from phenomenology, and it assumes that phenomena should be studied by getting to their essence and by referring to the manifestation of their basic meaning. On the other hand, qualitative research derived its methods of reading and interpreting manifestations of the reality under study, such as social phenomena, images or texts, from hermeneutics. By describing and interpreting, qualitative research reveals its subsequent layers of interpretation. This interpretation always serves to understand the phenomenon better. Symbolic interactionism in turn, referring to the psychological theory of human behaviour and focusing on interpersonal interactions (interactions), is an opportunity in qualitative research to explain the relationship between an individual and the world, what meaning does an individual give to the world and his own actions in this relationship.

Qualitative research is internally heterogeneous and can be divided not only according to the directions of its development, but also according to the purpose of the



research. Dividing it in this way, the following types of qualitative research can be distinguished: ethnographic research, ethnomethodology, case study (biographical research and monographic research are a special type of case study), phenomenographic research, research in action, grounded theory, and focus group interviews.

Qualitative research, despite many advantages, also attracts some criticism. Qualitative research has been approaching quantitative research for some time by systematizing its research procedures, which leads to the disappearance of its specificity. Moreover, the currently developed qualitative research approach is not a direct continuation of that from the past. Uwe Flick (2011: 22-24) takes a similar position in this matter, and claims that qualitative research has now reached its 'maturity'. This is supported by a growing number of books, journals and other publications devoted to this research, a wider scope of qualitative research in various fields of science, the importance of the problems that are solved with its use, and the nature of the scientific debate on qualitative research, which the legitimacy of its conduct or 'scientificity', but the emphasis is primarily on the problem of ensuring its high quality.

Matthew B. Miles and Michael Huberman (Miles, Huberman, Saldana 2014) point to several characteristic features of the qualitative research:

- This research takes place during intensive and/or long-term contact with the research area or a specific life situation, which is a reflection of the daily life of a group or of an individual
- The role of the researcher is to obtain a holistic (systemic, integrated) context and to understand its logic and rules
- The researcher tries to obtain data on the perceptions of the actors through empathy and bracketing previous judgments
- Qualitative data is generated by distinguishing certain themes, which can be assessed by 'actors', but which are maintained throughout the research period
- The main task of a researcher is to explain the ways of understanding and explaining situations, taking actions and dealing with everyday situations
- There are many possible ways to interpret qualitative data, but in theory and in research practice some of them turn out to be more interesting
- In qualitative research there are relatively few standardized research tools, and the researcher is the main measurement tool
- Most of the analyses concern words that can be juxtaposed, grouped into semiotic segments and organized to identify opposites, to make comparisons and analysis

Due to the specificity of qualitative research presented here, this methodological approach is the most adequate for the purpose of our research.

In practice, the most frequently used research techniques in qualitative approach are free-form interviews, narrative interviews, in-depth interviews, and participant observations. Recently, one of the more widely used research technique is also a focus group interview.



I.2. Method – focus group interview

Focus group interviews appeared in social sciences in the 1920s mainly thanks to the works of R. Merton and P. Lazarsfeld. They were initially used in projects implemented for the needs of the army. They were also a method of analysing the media message, for example effectiveness of radio communication during World War II (Barbour 2013: 28). The next step in improving these methods was made by the representatives of psychology. They used focus group interviews for the studies of consumer behaviour and the factors having impact on the level of customer satisfaction.

Focus group interviews were subsequently used in marketing research, research related to the functioning of the organization, and then in surveys commissioned by political parties to study the public opinion in relation to the proposed reforms. Thus, the focus group interviews penetrated into scientific research. Currently, these methods are also used in educational research, especially for the evaluation of new curricula, new courses, or for an in-depth collection of opinions (cf. Dörnyei 2007: 144, 146).

Nowadays, focus group interviews belong to the group of qualitative methods. Their essence is to conduct a structured discussion on the issues identified at the stage of preparation of the study. These interviews are conducted by a qualified moderator and documented (audio or/and video). Generated data are analysed by a researcher who verifies previously formulated hypotheses. In a focus group interviews it is assumed that the respondents do not always clearly specify their views on the research issues – moreover – not always these views crystallize in isolation, independently from opinions expressed by other people. Hence, the respondents take part in a group study having the opportunity to express their views and listen to the opinions of others. It also indicates that focus groups allow for an analysis of emotions and non-verbal reactions of the participants of the study, while, thanks to the transparent language of the study, their results are relatively easy to analyse. Focus group interviews are usually used to gather information about the main patterns of thinking represented by groups of people, as well as the vocabulary they use. Focus group interviews are less prone to any kind of distortion resulting from direct conversation between the interviewer and respondents who are under his/her influence and are reluctant to give honest responses, especially on sensitive topics. They belong to non-standardized interviews and are considered more free, because they are based on partnership principles and a non-binding discussion. The main advantage of a focus study is forming opinions in a social context. As in everyday life, participants may want to impress others, oppose them or just be original. At times, participants with leadership qualities may begin to dominate and take control over the discussion. The moderator is responsible for preventing this from happening. This type of studies draws from the experience of other qualitative methods, such as: observation (thanks to the possibility of visual observation of the interaction) and an in-depth interview (examining individualized opinions and motivations). It is advisable to remember that participants in focus groups are not matched at random, so they are not a statistical representation of the population.



Focus group interviews provide information on how public discourse manifests itself in a semi-private discourse. The sample selection in focus studies is based on the relationship between the respondents and the subject of research and is not a random sample (Babbie 2012: 330). Usually in one interview there are 4 to 15 participants. This research is not representative of the population, even if a random operator is used for selection, but it achieves high facade validity (Babbie 2012: 331). It can also be successfully argued that at least some focus groups are characterized by typological representativeness in terms of features which, due to theoretical considerations, were considered important in the study. Finally, focus groups generate data at three levels of analysis: the individual, group, and interactive level (Cyr 2019). According to Janet Smithson (2007: 359):

The focus group procedure is typically to follow a relatively unstructured interview guide, which generates a list of topics for discussion. The aim is to cover the topics set by the research agenda, but with some flexibility to allow related topics to emerge in this context. The focus group moderator (who may or may not be the researcher) guides the discussion, making sure that all topics are covered, and that all group members are given the chance to speak. Groups will ideally last from 1 to 2 hours. Just as with other forms of semi-structured interview, testing the guide on a pilot group is highly recommended. In social science research, focus groups are usually recorded either aurally and/or using video facilities. This contrasts with market research where notes are made during the focus group by the moderator or a colleague.

The criticism regarding the focus group interviews relates primarily to the possibility of generalizing research results and the possibility of building high generalizations. Research carried out with this method is primarily individual. Knowledge obtained from focus group interviews allows us only to say that "it sometimes happens ", not that "it is always like that". Referring to the weaknesses of the focus group interview, it should not be the method itself that deserves criticism, but rather a researcher who does not take into account its specificity and limitations and strives to over-generalize. Some representatives of the international academic community also accuse this method of "lack of discipline" in conducting research and that it "takes too much time and results in a large number of unreadable documents", therefore "it is very difficult to conduct a good focus research". Generally the advantages are:

- providing valuable information on how the issue is perceived by discussion participants
- encouraging the development of one, common position on a given issue
- joining a discussion brings participants together, they are more likely to support the research when it is based on their own needs and arrangements
- allowing to create a reference to the real experiences of participants

On the other hand, the disadvantages that are most typically pinpointed are:

- difficulty in getting the relevant people together at the same time and place
- the focus group interviews generate non-representative data and make it impossible to formulate broad generalizations
- the public nature of focus group interviews sometimes prevents honest discussion
- they are difficult for the researcher to conduct, because they require an atmosphere of openness



Due to the characteristics of focus group interviews presented above, their advantages and disadvantages, this method was considered the most appropriate to solve our main research problem and was used in the research.

I.3. Data analysis

The empirical material collected as a result of the research were transcriptions of focus group interviews. In our analysis, we firstly read the transcriptions carefully. Next, the main code segments such as “first thoughts about international learning in digital environment”, “experiences with international learning in digital environment”, “changes in learning practices”, “personal experiences”, “problems experienced during international learning in digital environment” and “main result from mobility with digital tools” were generated. The codes were the foundation for our main modes of thinking about and interpreting data (Gibbs 2007, p. 79-82).

The analysis was carried out according to the scheme developed by Matthew B. Miles and A. Michael Huberman presented in the book *Qualitative Data Analysis* (1994). It is a proposal for a comprehensive, developed and relatively (compared to the previous proposals) strict analysis of qualitative data. According to the authors, the analysis of qualitative data should take place in three stages: data reduction (coding, topic extraction, clustering, data splitting, and note taking), data representation (matrices, graphs, charts, and networks) as well as deriving and verifying conclusions (regularities, formulas, explanations, possible configurations, causal streams, and statements).

Data reduction includes writing summaries, coding, extracting topics, creating clusters, splitting data, and writing notes. The reduction, understood as the transformation of data, does not end at a specific stage, but continues until the end of the research. It is a form of data analysis that "sharpens, divides, concentrates, rejects, and organizes" empirical qualitative data in order to enable drawing final conclusions from the research.

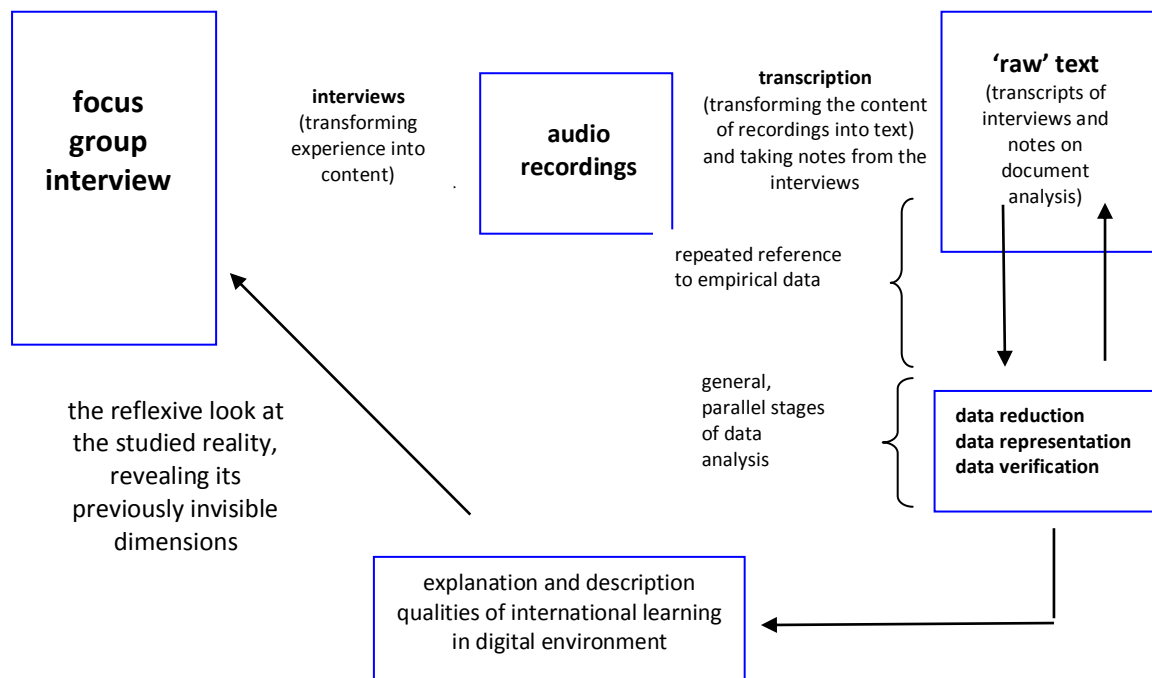
The tools of representation are various types of matrices, graphs, charts and networks, created to facilitate data analysis and drawing conclusions.

Deriving conclusions is about seeing regularities and specific features, elaborating patterns, explanations, possible configurations, causal streams, and statements. However, conclusions should be formulated with openness and scepticism. In the process of deriving conclusions, they are verified in terms of accuracy and credibility.

Then we identified links between different codes belonging to one category (intra-case analysis) and to different categories (cross-case analysis) (Berkowitz, 1996).



Figure 28. The process of collecting and analyzing the data



Source: original study

Following this graph, we aimed at obtaining a holistic (systemic, integrated) context, its logic and principles of international learning in a digital environment.

1.4. Ethical principles of focus study

Every social research is superimposed onto ethical problems, related mainly to research participants, goals, course, and presentation of findings. The profound social, technological and mental changes taking place in recent decades have also triggered and enforced a constant revision of the methodological and ethical rules of social and sociological research. In the process of following these changes, not only does the rank of ethics grow steadily, but the scope of phenomena subject to ethical regulations also expands. It is an infinite and dynamic process which cannot be followed by subsequent provisions of ethical research codes. Moreover, the codes by their nature are general, often devoid of sufficiently detailed executive guidelines, and thus do not provide answers to many important ethical questions bothering researchers.

Of particular concern, when using focus group interviews methodology, are the ethical issues related to having more than one research participant at a time. This has two implications: first, people may be uncomfortable with talking about their concerns in a group context, whether with strangers or with people they know. Sometimes focus group members may not react appropriately to other members' disclosures. The moderator can try and move the discussion on or change the topic, if group members appear

uncomfortable with sensitive issues. Second, the researcher cannot guarantee that all discussion in this context will remain totally confidential. A useful strategy is to start the focus group interviews with a list of 'dos and don'ts', including asking participants to respect each other's confidences and not reveal what was said in the group, however this cannot be enforced. The moderator can guarantee from a personal perspective that the things said in a focus group context will be kept anonymous and confidential, but cannot guarantee that co-participants will not discuss them outside the group, which can be a problem, especially in an institutional setting, such as in a workplace, or a health care setting (Janet Smithson, 2007: 359-360).

Therefore, at each stage of the research, we were guided by the ethical principles of research present in the literature (Kuyumdzhieva 2018; Israel 2015, [Brinkmann](#) & Kvale 2005). Especially, we

- presented the aims of the research
- only interviewed those who agreed, and there was a real possibility of refusing to participate in the study
- did not make hidden surveillance
- respected the privacy of respondents and confidentiality
- consulted the process of collecting and analysing data in an international group of experts to avoid duplication and manipulation
- we treated research participants subjectively and tried not to harm them in any way.

II. Findings

II.1. Course of data collection

Interviews were held online using Zoom and/or MTeams between October and December 2020. Interviews lasted about 45 minutes to 70 minutes. In each interview 3 to 6 students took part. In total there were 16 FGI held in English, because of the international environment of students. The focus group instructions (questions) were administrated by intermediates (usually 2 per interview) from partner institutions involved in the 'HLiTL' project, who were responsible for obtaining consents regarding the study participation, asking questions, and recording the interviews. These persons were defined as being 'third party' in our research process, in accordance with the term used by Howells (2006). This 'third party' was also part of the expertise in consulting interview questions, as they are practitioners having several years' experience in supporting internationalization within Higher Education Institutions and mobility exchange programme facilitators in Higher Education Institutions.



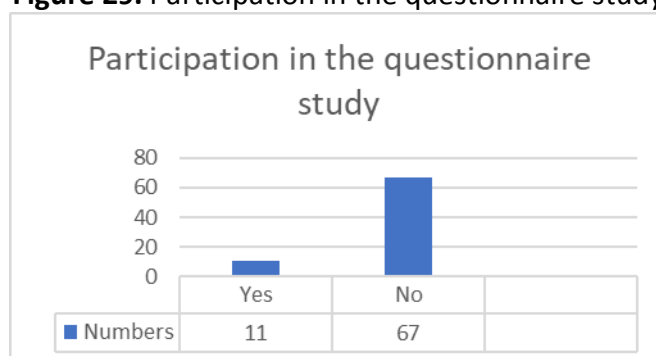
II.2. Research tool

Research questions were referring to international learning in digital environments. In the first question, students discuss experiences with international learning in the digital environment. Here we wanted to know how was digital environment included in international learning and mobility, how was it organized. In the second question the changes in learning practices as a result of experiencing international learning in digital environment were discussed, how did this kind of mobility contribute to personalized learning of our study participants. In the third question we referred to the impact of changes in learning on people, how did this kind of learning change students. The fourth question referred to problems our students experienced during international learning in digital environment, what difficulties they experienced during digital learning and in the digital environment. In the last, fifth question, we asked students to name one thing that they learnt from mobility with digital tools that they find useful in their lives.

II.3. Participants

The participants in the study were 78 higher education students from 10 countries (12 universities) involved in mobility in Europe (9 countries) and outside Europe (1 country). For students' selection we performed a purposive sampling. Participants were selected based on their experience with mobility (selection criteria: participation in at least one mobility scheme within the last 18 months). We also wanted half of our participants to be students that took part in the previous questionnaire study. Because of limited availability we recruited 52 (67%) students out of 78 that took part in our survey study in Spring 2020. Focus Group Interviews (FGI) took place between October and December 2020. In total, 78 university students from 10 countries (12 universities) took part in the study. Out of those, 11 students also took part in the previous survey study conducted in Spring 2020.

Figure 29. Participation in the questionnaire study



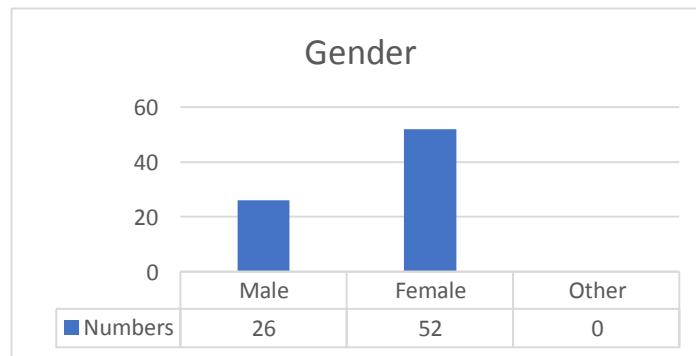
Source: original study

Among Focus Group (FG) participants, 52 were female and 26 - male.



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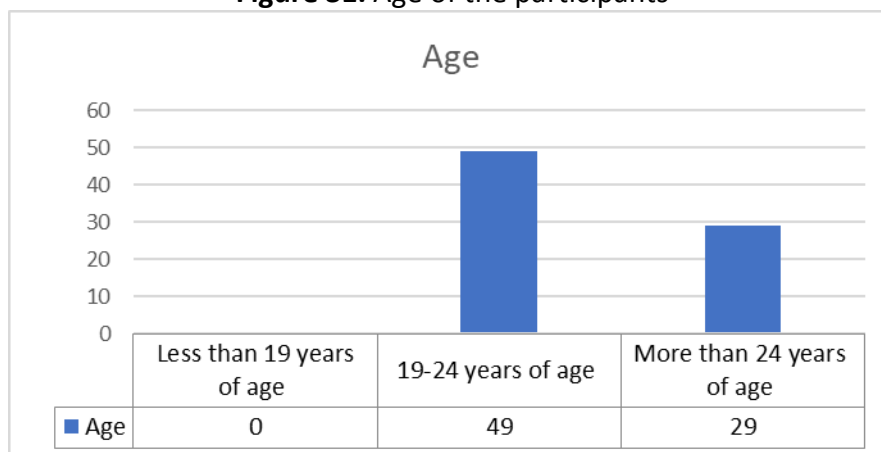
Figure 30. Gender of the participants



Source: original study

Among 78 participants, 49 were between 19-24 years of age. 29 study participants were over 24 years old.

Figure 31. Age of the participants



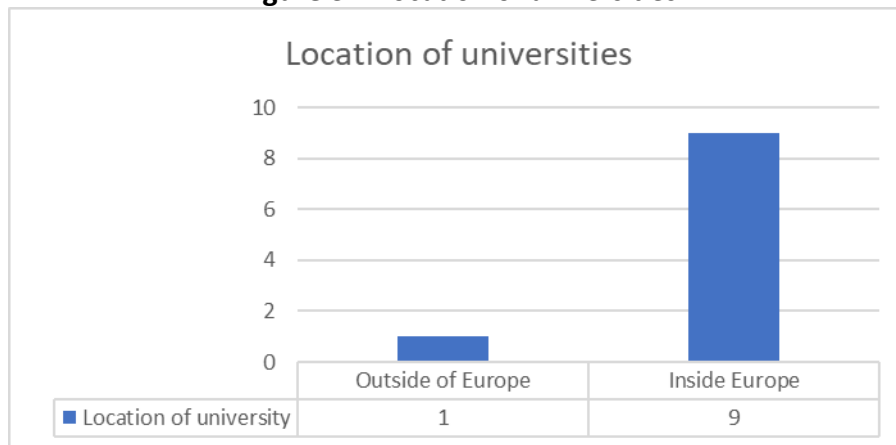
Source: original study

FGI participants were from universities located in 10 countries. One student was from China. The remaining 9 countries were: Belgium, Poland, Hungary, Portugal, France, Germany, Bulgaria, Armenia, and UK. All universities were Erasmus+ Exchange programme partner universities.



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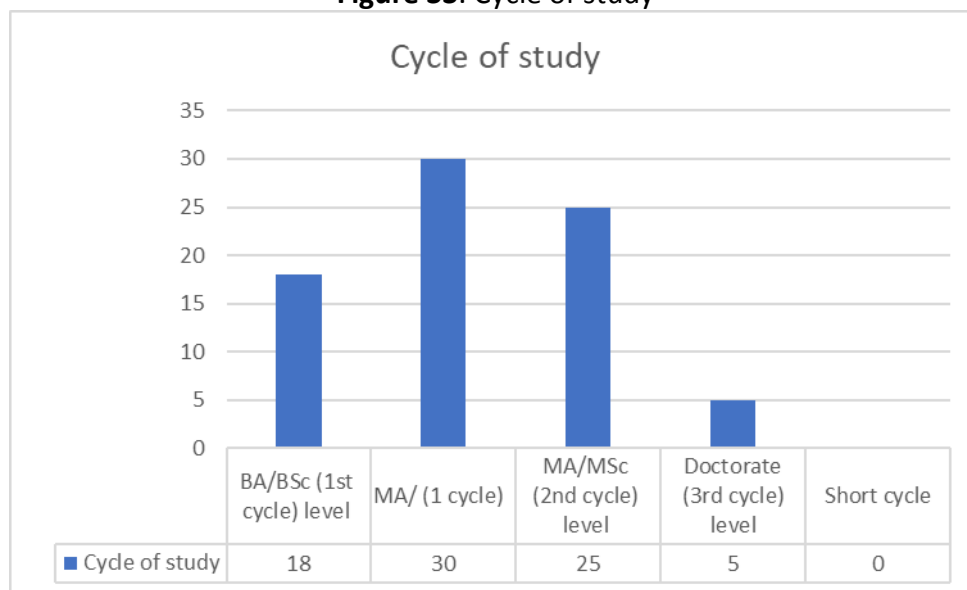
Figure 32. Location of universities



Source: original study

18 students were students of 1st cycle level – BA/BSc (Bachelor 3-3.5 year), 30 students – MA (uniform 5-year Master), 25 – MA MSc 2nd cycle Master, 5 – PhD (3rd cycle level).

Figure 33. Cycle of study



Source: original study



II.4. Students' understanding of international learning in digital environment

The initial question in our focus group discussions was related to thoughts students made after their international learning with ICT. At the beginning of the interview we asked them to discuss their first thoughts on international learning in digital environment.

Possibilities of digital tools use for learning

Our study participants were surprised by possibilities offered by digital tools in the international learning environment. In their opinion, this kind of learning supports mobility for those who **cannot take part in traditional mobility** (involving travel and staying abroad). In this context, international learning in digital environment is perceived as another form of mobility, usually in addition to physical mobility, **focused on the course content and the study field**:

How useful it will be for my future career or personal development.

Digital environment is complementary with physical activities.

International learning in a digital environment should only be complementary to the learning in the normal live environment.

I think it is important to have in-person seminars to complement it. Otherwise it would not be an international experience. Also community matters here, they try to organize fun things online, we have a book club, screening of short films, but the participation is very low, because we spend too much time in front of the computer anyway. Online things should be complemented with physical activities.

As another form of mobility, international learning in online environment is useful for those who cannot go abroad because of financial requirements connected with mobility. Those groups might be more **included into the university international community** through incorporating digital tools in their mobility:

Now I can take courses at universities that I could otherwise not do because of financial matters.

Online education is not perfect but it gives you the opportunity to experience education without much costs that needs to be paid, for example to for accommodation.

Our questionnaire study, conducted before the focus group interviews, showed that international learning with digital tools is associated with cultural exchange, social and personal development. During focus group discussions, those students that practiced digital learning within their mobility were telling us that their initial thought related to the feeling of surprise that under certain conditions (i.e. project work), this kind of mobility creates opportunities to **get to know a new country**, e.g. through stories, information provided by peers from around the world. In opinion of the students, cultural learning that is strongly associated with mobility, needs to be supported by a course outline (i.e. students introduce



themselves, share information with others within the course about themselves, their country):

It is still learning, you do not miss cultural issues, you still get to know new people, new friends, teachers are teaching in the same way ... There is a human ingredient within digital learning, through live interaction.

Digital learning still needs time to be fully applied in the classes because of lack of classmates contacts, connections.

Social life is possible, for example via social networks such as Facebook.

We are learning about other teaching methodologies, creating remote contacts.

It brings people from far-away countries together.

Learning with others using digital learning environment

Digital learning does not substitute face-to face interaction with others, however it has got the capacity to **stimulate social interaction** within digital courses for example by project (group) work:

I prefer it when I can interact with international students, we learn from each other better.

Teachers were facilitating group work and we were kept together to work. So the feeling of belonging was there because of facilitating group work.

International learning gives you the ability to meet others.

I am feeling comfortable with my group mates, I feel being part of the group. I miss the chance to meet my peers face to face. For me studying abroad is about meeting others.

It's surprising - how easy has learning become also for others, how we got connected.

Our previous questionnaire study showed that mobility in general is strongly associated with learning together with others, where the presence, conversations and face-to-face meetings have the priority. The focus group discussion showed that digital learning requires **presence of a peer group** and learning with others:

It is an easier and quicker connection with people from other countries.

Despite lack of traditional classes, it was still a very positive experience for me, and having the possibility of learning digitally and participating in a mobility is very enriching.

We still connect with other peers, which means we are learning a lot about the country, even if we are not there in person. Even though the system of education is not the same, it still can be a positive experience in the way it is never the same as having digital education at our faculty.

We only interact with fellow students from other countries and have almost no connections with locals.

Socialization is certainly difficult. But we try. To me it is more difficult to connect with people virtually. We log in 10 minutes before the actual meeting, to just talk with one another. Within the class teachers also dedicate time to share different personal issues, especially with regards to the Covid situation.

What is international in this learning is the social part that is happening online.

Social interaction but without fun: Less interaction with classmates, no enjoyment, but we were still trying to interact with others.

Online tools give us more chances to meet more people that we wouldn't meet in real life because of the distance.



A recurrent topic discussed by students in relation to new experiences with learning were online exams. The way they were planned was challenging in terms of their form and timing. Interestingly, students appreciated oral exams as the **opportunity to talk with professors**.

Exams were through essays, but I enjoyed one exam where I was talking face to face with one professor.

For short and quick tests you need to memorize. Longer tests with focus on problem solving are better.

Exams were written and university was using the existing software and since in the past they had had experience with Moodle, there were no problems in the initial weeks of moving into digital environment.

For exams we had a platform dedicated to tests.

The preferred evaluation methods changed and now more suitable are oral exams.

International learning focused on the world

In conclusion, generally students are quite knowledgeable about learning and are aware of its necessity, which is the result of their biographical and educational experiences. Their understanding is consistent with the theoretical approaches presented in the literature. As international learning in digital environment they understand everything that is involved in **constructing, structuring and restructuring knowledge about the world and developing the skills**. One of the students describes his international learning in digital environment experience as follows:

Having classes with teachers from other countries, from other backgrounds different than mine, and being able to participate together with others students that are from different backgrounds as well. So for instance, right now I'm a double degree student with the Kedge Business Schools, but I'm in Portugal, and I was there for the last semester, and then right now I'm also following some classes, but I also had some digital learning like, for instance, the EUGLOH partnership, so I was part of that as well and basically I was able to be in one group with students from Hungary and students from different parts of the world. And then of course, the teachers as well are from different parts of the world. So, when I think about international learning, it is bringing together, in Zoom or in a digital platform, people from different parts of the world who can discuss the different challenges and different, like, issues that come up in different contexts as well.

This statement reflects the views of most interviewees. It is also characteristic that students associate the development of the international learning environment and its usage with the labor market. In a world that changes all the time, willingness and possibilities to learn are one of the most desirable qualities of students and staff. Employers are looking not only for a professional in a specific field. They are also looking for someone who is familiar with online education. Employees who constantly want to learn and improve their qualifications are appreciated. With the passage of time, the number of people who benefit from online education is growing rapidly. Digital environment (or online education using the Internet and communication technologies) offers a number of opportunities to increase access to education quantitatively and qualitatively. The demand for education is another important element in the rapid development of online education, which is why not only private companies, but also universities, schools, and businesses use such a tool. Such a



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utilitarian understanding of learning is characteristic of adulthood and testifies to the intellectual maturity of students and their awareness of the need for professional and personal development.

II.5. Students' experiences of international learning in digital environment

Another issue that was discussed during focus group interviews was students' experiences with international learning in digital environment: how it was practiced, how students' learning occurred in digital environment. A distinctive feature of this study is that most of our respondents participated in their mobility during the outbreak of COVID-19 in Spring 2020 and throughout the autumn-winter semester 2020/21, when students were involved in international learning for one up to two semesters. Most of them started their Erasmus exchange in early Spring, witnessing the COVID-19 spread, and experienced lockdown in the countries where they stayed for their mobility. There was a group of our respondents that decided to go to another country to take part in digital mobility despite local lockdowns. There was however also a group of respondents that decided to stay at home and carry on their mobility in digital environment from home (without traveling to another country). Both groups shared their experiences and told us what their international learning looked like. Those that participated in their mobility from home told us that they didn't feel they were taking part in mobility exchange because of home environment that did not support online learning and could cause distraction.

Challenges of learning at home

Students associated face-to-face learning not only with the social context of learning (learning with others) but also with the physical environment where the learning takes place. In the focus group discussions they related their learning environment to **home and university** premises. During the discussions, one of the issues raised was that in their virtual environment students do not feel safe emotionally and they need "a place for digital learning" that is not their own home:

At home a lot of things can distract you, even a postman at the door. It is not like when you are in the classroom.

Difficult to concentrate, the home environment distracts more than a classroom, sometimes a teacher is needed to remind you that you need to listen and focus, at home there is no one like that.

Struggled to have a studying routine at home.

It is difficult to concentrate when the living space is crowded, when it is loud.

I feel like I am not involved in classes as I would be in face-to-face courses.

For me the environment keeps me focused and engaged, so when I am in the classroom I feel more focused than when during online lectures.



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It is difficult to stay focused at home, but time management is a new routine which helps me to overcome problems.

This semester I am in my country at home in Portugal and I often feel distracted, but when I was abroad last semester I was more focused in the dormitory.

I am distracted by my home environment. I am in my bedroom and I cannot focus.

Those that decided to participate in mobility abroad via the digital tools lived in dormitories with other foreign students. In the opinion of this group of students, staying in the country of mobility and **living in the dormitory** supported **social interactions** during their mobility:

I decided to stay in Hungary and live in a dormitory. So I live in the dormitory together with others and I do not feel lonely at all. We meet in the evenings and when it is allowed we go out together. So I have a chance to physically interact with others. All the time I am with international students, not with locals.

During my mobility I was in another country, and I lived in the dormitory. All was new for me, it was a very enriching experience. I had flat mates from different countries. Even when I went to a supermarket it was an exciting experience; it doesn't have to be anything special, all the things are interesting when they are different from what we know.

I had online courses but I stayed in a foreign country. So I had the feeling of being a group member with other students from our dormitory, we were meeting after the courses.

When I was in the dormitory, it had to be quiet inside the building and my peers, mates we were sharing the dormitory with, were loud, but they were also learning at the same time.

Technical conditions for international learning

When discussing experiences with international learning in the digital environment, students were referring to **technical conditions, learning environment** (Moodle, Zoom, MSTEams, Google Meet, Blackboard), teachers' skills, and organizational solutions introduced by their universities. It turned out that when international learning is concerned, they prefer meetings during which they can talk with their teacher or class mates:

Some courses were online live, but mostly they were saved and recorded on Moodle.

I had classes online, exams were online, Moodle, cameras and microphone was connected.

Synchronized online classes, teachers prepared it in advance, recorded presentation.

An advantage of online learning is that if I can't understand something, I can watch again, listen to it again, however if I still do not understand, I do not have anybody to ask.

It is important that the classes are recorded, sometimes we don't feel well and it is an opportunity to learn better.

During a forum in Moodle it was possible to ask questions and then an answer would come from the teacher or from another student.

I would say that the quality of virtual learning results is better, because when you are physically in the class, you (often) do not have the time for a second question or to do a research, to stop and check further, you have



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to know “immediately”, on the spot. But in a virtual environment you have time to do extra research, in my opinion you can understand more of what is going on, and therefore the result of the task will be better. What does online learning look like? We use different programmes, like Zoom, for everyday classes. Teachers are engaged, there are breakout rooms. It is not like in a class room and you can talk with peers, share ideas, it is very comfortable, and we swapped rooms is very OK.

We used Moodle, blackboard

Classes were synchronized, they had a form of live workshops with everyone involved.

On Moodle there were presentations uploaded and we had to learn from them. My courses were focused on conversations. But we also had to write short papers. Some courses were interactive

International learning with digital tools is less related to working according to a planned schedule. Students are more focused on **achieving goals in their own way, which supports independence in learning.**

Traditional classes will always follow the schedule without an online interaction. The online classes' time schedule becomes a problem when classes start in the morning - they should be recorded taking into consideration the time differences. Recording would be good for students.

It is completely different from face-to-face learning, it is worse, because the experience is different. Even if professors do their best, it is still difficult to stay focused.

Problems with focusing your attention on the course.

It depends on the courses organization, some have got a lot of group experiences, the others do not have it and work by themselves.

I think digital learning requires high level of self-motivation.

When you learn online you need to motivate yourself.

It is focused on knowledge, the way the courses were organized and how they were developed.

I am more engaged into courses, when my professors ask questions I always try to answer them, I feel like I participate more into the courses and tasks assigned.

The optimal form of learning

A recurrent topic in the group discussions was **project (group) work** as the optimal form of work in the digital environment, due to the ability of the participants to develop socially, particularly in relation to getting to know one another.

Project work, it is better to work in a group because I don't feel like I am left alone.

Meeting my peers during the project work was good.

In group projects, we had tasks' assignments, teachers told us the deadline but did not explain how we should work. It was hard to focus on group work when you did not see one another, so we used Skype. Teachers offered zoom sessions to help us out with projects. Only if we asked for help they would give us some feedback. I wished for more engagement of teachers with students.

Teachers were proactive and were facilitating group work.

When working on the project, online environment is better, as there are more documents distributed that we can study (in the past we had to do notes during meetings), now it is easy to track what I am doing and what others are doing, now people provide more instructions in writing, so they are available anytime.

I feel more comfortable with group work, but not in person. What is new is that what I perceived as a personal relationship, requiring a face-to-face meeting, does not work that way anymore.. I realized that also during online meetings I can cultivate my friendships.

Learning in a digital environment and group work were discussed in relation to the size of course groups. In the opinion of students **smaller groups support efficient learning with digital tools.** Bigger groups do not offer interaction with peers and the teacher.



The teacher was explaining a lot, but was talking to everybody and there was no interaction with the teacher. When I didn't understand something I had no opportunity to ask questions. It brings together people from far away countries.

In the opinion of students, **personal attitudes** like openness towards digital learning environment **are crucial to participate in international learning** with online tools.

Openness to new online environment of learning is important.

It is important to be open minded.

It was hard to adapt to an online platform but getting used to online courses did not take long.

In the opinion of students, digital tools within mobility **develop motivation** and focus on course content, and support self-learning.

I manage my time for learning better, therefore it supports personalized learning

I meet deadlines more easily.

I feel more motivation to do tasks on time.

I had the agenda, which I never used to have, a "to do" list, and in that sense I could do more than before in the traditional learning environment.

Flexibility, because all courses were recorded, so I could organize my day and time when I wanted to learn and for how long.

It creates the opportunity for courses and resources which students wouldn't be able to access otherwise.

I become more independent in organization of my own learning and less dependent on teacher's materials.

It changed the way in which I am managing my time. During traditional classes I was more distracted.

I rely more on self-directed learning.

I value a lot the fact that I can schedule my tasks for learning.

It was an intensive course, so I was focused – it is up to the course and the teacher, up to the way the course is organised, if there are methods that help you pay attention.

I've become more responsible – because I have to do it, because if not, no one else will do it.

It is more work with deadlines, deadlines mean pressure to finish a task and to be good at the course. I didn't feel this pressure before.

When you have freedom to learn, as long as you are self-conscious, you become more responsible for your time. You plan your day and you know that for a certain course or test within the course you need to plan for example 2h on that day.

I improved my self-awareness, my responsibility.

Input on personal learning

We also asked students how international learning with digital tools changed their learning. In students' own opinion they have **become more independent** in searching for information, at the same time depending less on their teachers.

I learned how to study on my own. In the traditional learning, I relied on myself but also on the teachers' support. Here I am more on my own. I learned everything on my own. Teachers are also teaching us how to learn on our own. The Erasmus exchange gives you a life lesson on how to live on your own, online environment of learning gives you another life lesson on how to learn on your own. I learnt how to learn on my own.

I didn't believe in my own skills. I have always been expecting help from others (i.e. teachers, peers), when doing my homework. And now I realized that I can do more things independently, and do them my own way, with the result I want and I am writing more papers with results that I want to achieve and not the results teachers wanted to get. I was a procrastinator in the past – that changed a lot. I need to do my own schedules, so I developed some work management and task management skills. We need to act in a responsible way = before school made us responsible, and now we have to keep ourselves responsible, and that is hard.



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I have become more comfortable with online classes. I feel more comfortable finding information on my own. In the past, if I didn't know something I would ask my teacher, now I have Google in the second window and I check on my own. In the traditional learning environment you cannot quickly check something online, here you can and this is amazing for me.

There were certain courses whose online environment of international learning did not satisfy the students (e.g. in relation to the need to learn outside of the university, during internships), however there are areas like language learning, where online courses are a very suitable environment.

I use Google translator if I don't understand.

In case of languages, it is easy to learn with online tools.

You get access to university courses in another part of the world, it is a privilege and an ability to study abroad.

While learning, we depend on technical equipment.

If I don't understand something I can search in the Internet to find an answer.

Adaptation to the new digital environment is quick and rather intuitive, which might be due to the fact that the youth belong to the generation of 'Digital Natives' (Prensky 2001), 'the Net Generation' (Tapscott 2008), and 'Millennials' (Howe et.al. 2000). Thus they declared that **they didn't feel much difference between the course developed for digital environment of international learning and one taking place in the traditional learning environment at the university premises.**

I participate in face to face courses more often, it was almost the same during online courses, the work was organized, teachers were live, they were organizing discussions. I always tr to take part in a discussion and voice my opinion.

It all takes place online, but in the same way as if it was physical, teachers follow the same plan, so I know what I will be learning (we know syllabuses) and everything has been transferred into the digital environment. Moodle; blackboard; teachers providing pdf; exercises; the exams were written, but online; I have the feeling that a physical course would look like that as well.

Tests were physical onsite and online, multiple choice.

The schedule is just like in the on-site learning.

The **differences** in course design have been noticed in relation to exams.

With oral exams nothing changed, that thing is as it was: the same physically and virtually.

When it comes to exams, only the oral exams were good. I had the opportunity to interact one to one with my teacher. Written exams do not fulfil my needs in the scope of my knowledge evaluation.

Essays were also OK, but not the same as during face-to-face exams. All the classes were simultaneous.

Technical and organizational decisions that are made by the faculty play a role in digital learning experiences.

All was live, we could ask questions – the experiences depended on organization of learning. Students were complaining when there was no live meeting on Zoom or Teams but all was on Moodle and it was send via email.

New opportunities

When it comes to learning, students pointed out to new opportunities for skills development and information (knowledge) presentation. They associated online learning with **personalized learning, and digital environment** was regarded as a new tool for providing resources, the way to efficiently present knowledge (information) and use it for learning (permanent availability online).



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Advantages of online learning are that if I can't understand something, I can watch it again, listen to it again, but if I still do not understand I do not have anybody to ask.

Taking notes is better.

I become more comfortable with digital methods.

Ambiguity is higher so everything has to be described as clearly as possible.

Digital environment is an efficient learning environment, people notice new opportunities in digital learning.

It is very active learning, high learning engagement, it is intense, you learn quicker, it is very effective in terms of what you learn.

Uploading of files, communication on chats, and commenting orally is the best.

It allowed me to have better contact with tutors, it was quicker to organise an online meeting and connect and ask.

What is new is that you can learn without physical barriers, that learning can be conducted online, you enter from the physical world into the digital world. And it is still learning.

According to students' experience, **international learning in the digital environment is based on the increasingly popular e-learning and student exchange programs.** However, it is difficult to identify a pure form of international learning in the digital environment. Usually, this kind of learning complements the traditional study program or is one of its components:

For example in my case, the first semester I was here, from September to February, there were demonstrations here because of the independence of Catalonia movements, so even my first semester was a little bit like a traditional one, with some elements of digital learning. (...) I had group projects, and basically, what we did here or at least in my case it was so that some teachers decided not to do classes, so they just for example uploaded Power Point presentations, available for one week, and you could listen to the presentations and note down what was needed. After a week they disappeared and new data was uploaded. And it was difficult because I had many older teachers and they could not adapt to the on-line world, basically. On the other hand most classes I had were on-line and held in the same way, via Zoom, but there we did not have any group projects. We were assigned some tasks that we had to do in groups, but on our own. And also I had teachers who decided not to upload any presentations and not to do any classes but only uploaded topics for the examination. So I have really mixed experiences.

The dominant theme was **the formal principles of international learning in the digital environment.** Such learning seems to be based on a virtual recruitment process and on further education in a similar form. The basis for this type of study is students' access to their individual online accounts at a foreign university, requiring the provision of some basic data of the participant, and a schedule of planned and selected classes, as well as credits and examinations necessary for the subsequent graduation. Lectures, exercises, and seminars are shared with students in the PDF or Power Point format after logging into a personal account. They can also take the form of audio or video files and reading texts. Getting acquainted with the content of the lectures is necessary in order to master the required knowledge. However, unlike during full-time programs, most often the student makes an individual decision about when s/he wants to study and under what conditions: at home, in the library, in the car, or on public transport, and at what time: morning, day, evening, or night. S/he also decides how much time s/he needs to master the material. Thanks to this, students can adapt their learning to their predispositions and abilities better. International learning in the digital environment also makes it possible to combine studies with work or family responsibilities.



II.6. The results of international learning in the digital environment

Another issue discussed during the focus group interviews was how learning changed students. The presentation of the results was divided into three subsections: the results in the learning practice, the personal dimension of the results, and the usefulness of the results. Students associated the changes in learning in relation to the field of study and the courses taken during their mobility in digital environment. In their opinion, international learning in digital environment **changed their perception of opportunities for knowledge development offered by the digital environment**:

I am more open to different ways of learning, it is surprising that I watch videos during my classes, I begin to read more; in the past I was more keen to have the topic introduced by teachers, they provided me with everything, this has changed now.

Students told us that since their international experiences with learning **they have felt openness to new opportunities in learning**, stronger motivation for learning, openness for discussions, expressing critical thinking:

I am more resilient to change and more self-motivated. It made me more inquisitive, it made me dive into topics more than before. My critical thinking definitely increased, and I gained some empathy, which allows me to put myself into the other students' shoes

I am more patient, determined, and focused on self-learning.

I made myself more accountable for my actions. I was responsible for the learning progress.

I became more productive in learning.

It gave me the opportunity to focus onto important things for my career, and definitely I am independent in conducting tasks.

Interviews with students showed that they felt the change in knowledge delivery in digital environment. **Students appreciated availability of materials** such as presentations and noticed that they did not have to do notes during the course as all the materials (i.e. course contents) were available online, so students could always have a look into the presentation for information:

I become lazy because of not taking notes but this shows that there are different approaches to knowledge presentation.

Teachers upload a lot of stuff, scripts; where in traditional learning I was making notes, here I do not have to, teachers make notes.

A great idea in digital learning are recorded lectures. I can watch them many times, it is better than participating in face-to-face lecturers.

Social life in the digital environment

Students told us that their social life moved into the digital environment, particularly in relation to communication and speaking with others. What surprised students was how **body language was important** for understanding others:

We need to be more aware of diversity in digital environment, the ways of expression are different, I sometimes have problems understanding and do not look at what the person is talking about.

In face-to-face meetings you look at the body language.

As a person I learned how to communicate, what people are saying, there are no distractions visually.



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*I have become slightly less assertive in conversations / collaborations.
I speak more often during the courses if I am online with the group and with the teacher.
I improved my online communication skills. Is difficult to show personality online, and I have group projects and I meet other students and I improve these skills. I think for my future work it is good to have this experience. I become more sceptical about the way education is conducted in the traditional form and how much in the past I used to depend on teachers' materials and not on my own activity.*

Students noticed that **international learning** in the digital environment **empowered them to take the floor and to speak up**. They felt more confident in oral interaction:

*It changed me when I realized how confident I am when talking. I used to be a rather shy person. I wasn't the first to start talking, I was rather a listener. With online tools I feel more confident to talk.
The whole process in which I learn changed, also the way in which I am ask questions.
It changed me as a student, I answer the questions much often.*

The students' learning activity was related to searching in the Internet for information, using online resources for own learning:

*I use google if I do not understand something and find information by myself.
It is easier when I search in the Internet and I have a lot of time to think and read more and I can quickly give answers because I know I am more self-confident and I speak up, so I feel more brave to participate in the class.*

General perception of international learning

International learning is perceived by students not only as intrapersonal learning, but also as learning from others:

Digital learning within Erasmus didn't change me as a person, but the mobility itself changed me. To be able to see the interactions between professors and students in another country (culture of learning; culture of university interactions), to be able to meet other students gave me a new perspective on studying, on the university and on my field of study in another country.

Students linked their personal changes with **speaking skills, synthesis of information from online sources and their perception of online environment of learning**:

*I became a better active listener and try to keep focus and be efficient with time – I need more time to fully appreciate it.
It changes the perception of digital learning. In the past I didn't appreciate it, I didn't consider it an option for learning.
In the past, I thought that in order to learn truly and efficiently you need to go physically to a classroom. But now it has changed completely. It is so comfortable to learn from home, a comfortable experience, and I am more prepared and have more time, I do not have to travel.
As a student I am prepared for classes, my approach has changed and I now perceive digital learning environment as a good positive thing.
I improved time management and self-discipline.
In my case, the changes happen all the time, I learn to better manage my learning, my time.
It changed the way I learn. I do not see any changes in methods, rather in the way I plan my time.
I am careful with managing my time.*

Problems and challenges

One of the questions that was discussed by students was related to **problems** students experienced during their international learning in the digital environment. Problems of



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international learning with digital tools were discussed in relation to participating in courses and living in different time zones:

I came back to my home time zone, which is different, so courses were early morning or late at night.

Different time zones and combining online and offline courses was difficult.

Sometimes it is hard because you have a lot of tasks, it changed the perspective of time in learning.

Students were surprised how easy international learning with digital tools was, however, when telling us about their initial weeks, they complained about some initial problems, usually on the side of the university. In their opinion, Higher Education Institutions needed time to adjust to the new digital environment of learning, due to the sudden change that was enforced by the COVID-19 outbreak. Thus in the initial weeks students felt like they were left alone. After they finished their mobility, they also had the feeling of being burdened with organizational issues such as obtaining certification from the courses they attended.

Transferring the mobility into the digital environment of international learning, in the opinion of students created **difficulties** in relation to (1) organisation of university work and (2) teachers' skills. In relation to organizational area students pointed out to lack of information about technical solutions related to the learning environment and lack of information whom they should contact to ask questions. In relation to teachers' skills, students voiced the following opinions about their teachers' abilities to use the digital environment of learning:

E-learning created a mess at the university. For example no one knew what learning platforms would be used, it was difficult to obtain information from administration staff or teachers.

After my mobility I wanted to obtain some signatures which took longer than usually, because the university buildings were closed.

My home university and the university which I visited during my mobility couldn't reach an agree on one of my courses. So this thing took longer to be solved, the faculties found it difficult to communicate about what signature was needed.

The worst experience was at the beginning when COVID-19 started spreading around and the university was not ready to face this challenge.

The beginning was a real drama, because it was emotionally surprising but organizationally a disaster. No one, particularly not teachers, knew what they should do.

The major difficulty, were and still are bureaucratic issues related to updating documents and notes. Via telephone and email it is difficult to find out and agree on what documents are needed. I also had to contact teachers and they had to issue some documents for me and it was stressful

Digitalization does not make our lives quicker, on the contrary, it takes longer to deal with some things. It is expected that if something is digital, it will be easier, but is the opposite. People adjust quicker to digital learning, but institutions work slower and adjust slower.

Problems with bureaucracy, I collected too few ECTSs by the end of the semester not because of me, but because some courses were cancelled, practical classes were dropped and I had problems finding a substitute for them.

In relation to university and digital learning, in the opinion of students, the digital environment of international learning was **challenging** for teachers that lacked digital skills in the scope necessary to teach in the digital environment.

Teachers do not teach, but they tell us to do self-study, so I perceive it as negative experience

No lectures from professors, we needed to find out the information on our own, it was difficult for us

The first experience – teachers were not prepared.

Teaching strategies are not adjusted to online teaching – the teachers lack the skills and the know-how on how the knowledge is presented.



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The old-fashioned memorizing – this is how teaching was organized. It should be more focused on critical thinking as online tools create such an opportunity. Changes are needed in this regard.

Teachers need to know how to communicate via online tools; Skype is ok, but old fashioned for students, so teachers are missing info on the latest tools used for communication purposes.

During the discussion, many **difficulties** were related to technical issues, such as problems with cameras or microphones. Some students told us that universities provided technical helpdesk that they could contact and ask for help. However, they lacked short tutorials on how to use the learning platforms.

The university provided some tutorials on technical issues to improve the organisation.

It was pre-exams for testing.

The university offered some support; if we didn't have the Internet or a computer, than they would provide us with them.

I received support with technical issues, but no support on the use of Teams.

International learning in the digital environment is perceived by students as an educational process involving the use of personal computers, tablets, or smart phones connected to the internet. This way, students can complete their studies and obtain a university diploma, take a professional course and receive a certificate of completion, or learn a foreign language. In addition, through international learning in cyberspace, informal knowledge of societies, culture, customs, and history can be acquired. Students can also make friends, which can be useful in the future in the course of their professional careers.

II.7. The results in the learning practice

International learning in the digital environment changed students' perception of the role of a lecturer. The lecturer is no longer the sole or main source of knowledge. Students can obtain the latest information via the website, e-mail, textbooks, dictionaries, and multimedia encyclopaedias, chat, forum discussions, and from other sources. Therefore, the role of a lecturer, who used to be the main source and transmitter of information, changed to the one who shows the way to knowledge, supports students in the process of self-acquisition of knowledge by such activity as pointing to appropriate programs and teaching the skills needed to use the programs. Learning experiences have **shaped the students' attitudes towards independence and responsibility for their own learning:**

Initially, I suffered when I had to do this. It was not as easy as writing e-mails. Finally, I learned to study on my own, independently. Before the course, I was dependent on my teachers, but now I rely on my own mind, and how to do everything on my own, without libraries, without the help of the teachers and class mates... so finally, I learned to learn on my own, to make creative decisions.

There has also been a change in their emotional and motivational attitudes to the learning process, associated with access to modern sources of knowledge, breaking the predominance of "the spoken word" and print in favour of the presence of many foreign languages and activating the students with the use of multimedia



II.8. The personal dimension of the results

One of the more important topics of the focus group interviews was the impact of international learning in the digital environment on the students' life attitudes. They claimed that international learning developed their active attitude towards learning. This attitude is expressed mainly in the belief that learning this way is more effective than when they are taught in a traditional classroom. They were also encouraged to search for knowledge in the digital environment and to establish social relations, using it. They also learned how to take care of their internet image and of social relationships and their Internet acquaintances. Resolving new problems they had to face in the digital environment required creativity, which now they can also use in the real world. They are more open to the Internet knowledge, but also to other cultures and ways of life. Some of them realized that nowadays most research results are first published on the Internet. Some of the students also thought that now they were acting and behaving more ethically, because their moral awareness had increased. At the same time, they have become more sensitive to unethical behaviour, both in the digital environment and in the real world. This is evident in the fact that they formulate statements and assessments more carefully.

II.9. The usefulness of the results

Students who participated in the focus interviews expressed their belief that international learning in the digital environment may increase their attractiveness on the labour market, the probability of finding a good job, and may have a positive impact on their professional development. They justified it by the fact that international learning in the digital environment gave them the opportunity to obtain international knowledge that is not yet available in Poland.

II.10. The problems and challenges of international learning in the digital environment

E-learning, apart from advantages, also has disadvantages and can create barriers. From the students' point of view, one of the disadvantages is their apprehension of relationships in the digital environment. Moreover, a good-quality computer, high-speed internet access and additional devices, such as a microphone and webcam, are needed. The lack of any of these items creates further barriers, or even makes international learning impossible. However, when it comes to various kinds of technological barriers, as the situation is progressing towards technological and social development of an information society, these disadvantages seem disappear. The required devices are becoming cheaper and more common.

Another identified barrier is the need to have a good command of a foreign language, most often English. Yet another disadvantage is the isolation and loneliness of the learners, who may experience discomfort in communication with people with whom they did not have a direct, personal contact.

What is a challenging is the need for **self-discipline and self-motivation**:



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I think, when it comes to problems, lack of motivation is a problem. But after one semester I realize that it can be different. On many occasions I found myself unwilling to get up. I just felt like watching series or other things all the time, and when my on-line classes started on 9 a.m. I was not able to join them. I thought: it is another day that I am at home, and why should I wake up and connect with the class? I was just missing people in person, missing seeing people and interacting with them, it was lack of social relations. But it was my case...

There is also the risk of becoming dependent on hardware and the virtual world, which keeps people attached to monitors and distracts them from reality.

III. Conclusions

Universities are facing new challenges related to meeting the expectations of high-quality education, study programs, forms and methods of teaching, meeting the needs of the market and adequate shaping of graduates' skills, and also the need to support classic educational methods with modern solutions such as international learning in the digital environment. It also fits in with the progressing internationalization of universities. International learning in the digital environment effectively supports the educational process in the field of efficient communication between students and foreign universities. However, it should be emphasized that they are not free from defects and are not a panacea for the ills of higher education. They merely support the process of higher education. The conducted research shows that international learning in the digital environment can be a valuable supplement and enrichment of the existing, traditional organizational forms of education, giving students the opportunity to learn from the best scientists, no matter what university they work at.

International learning in the digital environment *versus* administrative level of university activities

In following report we understand digital learning as any kind of learning that is facilitated by technology (Horn, et. Al, 2011). The background for our analysis is students' mobility, meaning the activity when university students are taking part in an exchange programme (organized by another university) with involvement of digital tools. In this sense, international learning with digital tools requires self-regulation, in the meaning of organizing own mental abilities to conduct tasks and achieve learning goals in digital environment (Zimmerman, 2001).

In studies on learning in the digital environment, learning progression is considered in terms of self-regulative abilities, such as motivation, critical thinking, peer learning, task value beliefs, or help-seeking strategy (Anthonyamy, et al., 2020). Self-regulated learning is crucial for developing digital literacy skills (Greene et al. 2018; Shopova, 2014) which leads to successful online learning (Ejubovic, et al., 2019). In relation to the 21st century, the effective use of ICT is one of the new indicators of students' academic success (Torres-Diaz, et.al., 2016).



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The Digital Education Action Plan (2021-2027) outlines the European Commission's vision (EC, 2021) for accessible and inclusive digital usage in Europe. It has got two strategic priorities: (1) Fostering the development of a high-performing digital education ecosystem, and (2) Enhancing digital skills and competences for the digital transformation. In the Plan (EC, 2021) it has been explained that the way in which the priorities should be achieved is through primary education, and "digital transformation plans at all levels of education and training through Erasmus cooperation" (EC, 2021).

In the context of the Plan goals (EC, 2021), with our study we are pointing out to the need for a supportive role of the university for sustainable, accessible and inclusive usage of digital tools in Europe. Our study shows that usage of digital tools in Europe is connected with the provision of services by the university that are related to (1) information support (contact details and divisions/departments in charge) and (2) technical support (problems with hardware, cameras, microphones). When using the digital environment of learning during mobility, the ability to use digital learning platforms like Moodle or Blackboard is of secondary importance for students, as they learn with the digital tools intuitively. A distinctive feature of international learning in the digital environment is using such materials as videos rather than scripts or ppt presentations. In their interviews, international students underlined the need for recorded lectures instead of live (in real time) lecturing, because of problems related to time differences (the time zone of the university and of the student's home country time might differ) in delivery of courses in real time.

Students told us that when using various learning management systems at their host university, they didn't experience problems with their own digital skills. Moving the mobility into the digital environment of international learning, in opinion of students, created difficulties in relation to (1) administrative area of international courses at universities, and (2) teachers' skills. In relation to administrative area of everyday functioning of a university, students were talking about lack of information about technical solutions in the learning environment as well as about contact people for solving problems and answering questions. Regarding teachers' skills, students noticed lack of digital skills for online learning. The latest OECD report (2019) shows that only 39% of teachers in the EU feel well prepared for using digital technologies in their daily work. Our study confirms these findings, as in the opinion of students, digital environment of international learning was challenging for teachers, who were struggling with teaching in such environment.

International learning in the digital environment *versus* learning with others

Self-regulated learning, sometimes also called personalized learning, has been recognized as a competency for the twenty-first century and as an evident key to educational success (OECD, 2013). Schuck et al. (2017) argue that informal learning can be divided into spaces, and calls learning in social settings as the *Third Space* for learning purposes. Technology incorporated into learning is perceived as a means for creation of formal and informal groups where learners work together, communicate, collaborate and share ideas (Valék, et.al., 2012). In our study we claim that what is crucial for international learning in the digital environment are social interactions that are initiated by teachers and supported by



the course guidelines and learning methods, in particular the group work. In this sense, digital tools create the conditions for social interactions and self-regulated learning that is happening with others. Digital learning will not substitute face-to-face interaction with others, however the digital learning environment has got the capacity to stimulate social interaction within digital courses.

Learning with digital tools facilitates communication and collaboration skills, knowledge development, sharing of ideas (Pellas, et al. 2015). Studies show that students' motivation for usage of digital tools for educational purposes was the ease of use, costs, flexibility, functionality, and a range of features of digital tools (Khlaisang, 2019). In our study we claim that international learning is strongly associated with learning with others, where the presence, conversations and face-to-face meetings are the priority for successful mobility programme. A recurrent topic in the group discussions was project (group) work as the most optimal for digital environment, due to social development, particularly in relation to getting to know others. Learning in the digital environment and group work were discussed in relation to the size of course groups. In the opinion of students, smaller groups supported efficient learning with digital tools. Bigger groups did not satisfy students in relation to interaction with peers and the teacher.

Digital tools in international learning play an important role in social development and create opportunities to get to know a new country, e.g. throughout information provided by students during the courses. Students told us that their social life within international mobility had been moved into the digital environment, particularly in relation to communication with others. What surprised students during their international learning in the digital environment was how body language was important in understanding others and in learning about others. There are certain courses where online environment of international learning did not satisfy students (e.g. in relation to the need to learn outside of the university, such as during entrepreneurship), however there are areas of mobility programmes, such as language learning, where online courses provided a very suitable environment for development of communication skills.

Students noticed that international learning in the digital environment empowered them to voice their opinions and to speak up. During their mobility in the digital environment they felt more confident in oral expressions and in general more willing to participate in the course.

International learning in the digital environment *versus* personal development

Learning with digital technology is described as a method to create student-centred approach in learning (Tang & Chaw, 2016). Personalized learning is regarded as challenging for university students in terms of engagement and self-regulated learning (Zhu, Au and Yates, 2016). Studies conducted in academic environment showed the impact of personalized learning with digital tools on academic goals (pursuing academic goals independently) and non-academic outcomes, such as interpersonal and intrapersonal development (Anthonysamy, et al., 2020; Broadbent & Poon, 2015; Boelens, De Wever, & Voet, 2017). Recent studies suggest that digital tools meet students expectations regarding



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individualized learning, and collaboration that occur at any time and in places (Koskela et al. 2005; Khlaisang and Mingsiritham 2016).

A distinctive feature of the digital learning environment is enhancing communication, problem solving and collaboration skills through sharing of thoughts, and the exchange of ideas. The role of online environments of learning in higher education is that of places where students' attention is being enhanced (Songkram 2010; Khlaisang et al. 2014). Our study shows that international learning with digital tools offers features of personalized learning. During focus group interviews, students talked about being focused on achieving goals in their own ways, which supported independence in learning, made a break from planned schedules in relation to time management and resources (video, audio-file, book, script).

As far as learning is concerned, students talked about new opportunities for skills development and information (knowledge) presentation. Students associated online learning with personalized learning and the digital environment with a space for knowledge resources sharing, presenting and for learning (permanent availability of online resources). Students told us that after their international learning experience they felt more open to new opportunities in learning and to discussion, and also better motivated to learn. Students referred their personal changes to speaking skills, synthesis of information from online resources and perception of online environment of learning. They were surprised how easy international learning in the digital environment was. However, when telling us about the initial weeks, they complained about some problems, usually on the side of their universities¹. In their opinion, Higher Education Institutions needed time to adjust to the new digital environment of learning due to a sudden change that was enforced by the COVID-19 outbreak. Thus in the initial weeks students felt they were left alone. After they finished their mobility, they also had the feeling of being left without support in organizational issues such as obtaining confirmations of course completion.

Weiss, et al. (2006) perceive learning with digital tools in terms of a change. This change is regarded in comparison to the environment of traditional learning. So, comparing these two learning environments, Weiss, et al. (2006) notice within this learning environment a change from traditional learning to learning with digital tools; a change from static learning to dynamic learning; from isolated learning to interactive learning; from private learning to public learning; from hidden learning to visible learning' and from exclusive learning to inclusive learning (Weiss et al. 2006). Our study expands on these findings and shows the changes in the context of how knowledge can be efficiently presented and used in the digital environment. In the opinion of students, international learning in the digital environment changed their perception of opportunities that are offered by a mobility

¹ A distinctive feature of this study is that most of our respondents took part in their mobility during the outbreak of COVID-19 in Spring 2020 and throughout the Autumn-Winter semester of 2020/21, and their international learning took from one up to two semesters. Most of them started their Erasmus exchange in early Spring, as COVID-19 started to spread, and experienced the lockdown in the countries they visited for their mobility. There was a group of respondents that decided to go to another country and take part in the digital mobility despite local lockdowns. There was, however, also a group of respondents that decided to stay at home and carry on their mobility in the digital environment from home (without traveling to another country). Both groups shared their experiences and told us what their international learning looked like.



exchange programme. After experiencing international learning with digital tools, students saw new opportunities for knowledge development and also those offered by digital environment for the course contents (advantages of visual sources in digital learning *versus* written material within traditional mobility). Interviews with students showed that they had noticed the change in knowledge delivery in the digital environment. Students appreciated availability of materials, such as presentations, and noticed that they did not have to do notes during the course, as all the materials (i.e. course scripts) were available online, so when searching for information, students could always have a look into the presentation. Students associated changes in learning within mobility with digital tools in relation to their study field. Some study fields supported digital learning, however there were disciplines, e.g. medicine or technical engineering, where learning with digital tools needed to be complemented by apprenticeships outside the university. Students become more independent in searching for information, at the same time depending less on their teachers.



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