D1.2 Scenarios and User Requirements

2020-1-CY01-KA226-VET-082750

Remote Class System

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Abstract	The current report defines the project's target groups, scenarios and personas. In addition, it investigates the user requirements for CLASSY platform through the implementation of an online questionnaire survey.

THE CONSORTIUM

No.	Partner Name		Logo
1	GeoImaging	Geoimaging ltd	
2	AUTH	Aristotle University of Thessaloniki	
3	VS	Virtual Solutions	
4	SVR	SchooVR	

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CONTENTS

ABBREVIATIONS

3D	Three-dimensional
AR	Augmented Reality
AUTh	Aristotle University of Thessaloniki
CAI	Computer-Assisted Instruction
CBT	Computer-Based Training
DPO	Data Protection Officer
EU	European Union
GA	Grant Agreement
IO	Intellectual Output
i.e.	Id Est
N/A	No Answer
VET	Vocational Education and Training
VR	Virtual Reality
Α.Π.Θ.	Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης

TABLE OF FIGURES

EXECUTIVE SUMMARY

The report "User Scenarios and User Requirements study" presents an exploratory study performed in the context of CLASSY – Remote Class System – project (EU-Erasmus+, Grant Agreement: 2020-1-CY01-KA226-VET-082750) in order to define the project's target groups, scenarios and personas as well as the relevant methods to perform user studies. The User Scenarios will be defined for Classy according to the specific conditions of the two pilot countries (Greece and Ireland), to define user needs and preferences in relation to the scenarios.

A methodological approach was set combining both desk research and online questionnaire survey to identify user scenarios and methods to collect user requirements as well as capture the preferences, the opinions, and thoughts of potential users of the Classy platform. It was important to investigate the level of Virtual Reality (VR) usage in education to have a clear view of the current situation of the integration of the technology in this sector. According to literature review results, there are a lot of reasons that makes VR vital and useful for the educational system. Following the literature review, eight (8) possible user scenarios were developed covering different characteristics such as age, educational level, the educational and training purpose etc.

An online survey was implemented in Greece and Ireland to collect valuable insights on users' needs and preferences according to a CLASSY mock-up that was provided. More than 900 replies in total were collected and revealed the high potential of CLASSY platform for all the potential teachers/trainers or students/trainees respectively.

Meaningful outcomes were revealed about the familiarity of the target groups with the usage of VR for educational purposes as well as their preferences in CLASSY platform.

More precisely, the majority of both target groups in Greece and the teachers/trainers in Ireland do not use Virtual Reality for education purposes.

In both countries and target groups, the majority of the participants do not own any Virtual Reality equipment and they are unsured whether they are willing to buy in order to use it for educational purposes.

In terms of CLASSY features, the respondents appear to prefer to login to the platform via authentication or registration. In addition, they do want to being able to interact with other users and have access to the lecture/lesson afterwards.

In some cases, differences on preferences are observed between countries and type of users.

Overall, the analysis will feed in the design and development of CLASSY prototype.

1. INTRODUCTION

The current report was prepared under Task 2 "Scenarios and user studies" and Task 3 "User requirements and stakeholder participation in the value chain" of the CLASSY project (https://www.classy-project.eu/). The CLASSY project has received funding from the EU's Erasmus+ Call 2020 Round 1 KA2 – Cooperation for innovation and the exchange of good practices (Grant Agreement: 2020-1-CY01-KA226-VET-082750). The project's goal is to bring remote 3D guided lessons into the education. In particular, the main objectives include the development of a platform that offers a novel, technically advanced and appealing e-learning method, offering better learning potentials by watching a virtual model rather than an image in a book or a conventional image of video in a screen.

The scope of this report is dual. On the one hand the work carried out under this report aimed at defining the project's target groups, scenarios and personas. On the other hand, the user requirements for CLASSY platform were identified following a questionnaire survey approach.

The outcomes of this report will provide CLASSY partners with a knowledge base for the project's target groups, scenarios and end users' requirements for each service of the platform to be developed.

To this end, the current document is structured, as follows:

- Chapter 2 presents the overall approach and the methodological steps applied.
- Chapter 3 provides information regarding the Virtual Reality usage in education based on literature review.
- Chapter 4 describes potential user scenarios and use cases of the CLASSY platform.
- Chapter 5 presents in detail the development of the questionnaire and the analysis that took place in order to identify the user requirements for CLASSY platform.
- Conclusions sum up the report and briefly presents the outcomes and the results.
- Annexes include the questionnaire and the information sheet developed in English and Greek Language.

2. METHODOLOGICAL APPROACH

To identify the project's target groups, scenarios and personas as well as the user requirements for CLASSY platform a two-stage approach was followed.

During the first stage, a desk research and literature review of available online scientific publications, project reports, websites, portals were performed. On one hand this research aimed at investigating key aspects that make Virtual Reality (VR) technology and systems important and strong assets in the educational sectors and practice. A result that emerged was that VR has the potential to make an important difference to lead learners, trainees, students to new discoveries and trainers, professors', tutors, to new educational methods. On the other hand, it aimed at identifying methods to perform user requirements studies to select the most appropriate that could meet CLASSY objectives. In addition, the team mapped potential target groups, scenarios and personas related to CLASSY platform and scope.

In the second stage, the online questionnaire survey was selected as the most appropriate method to reach a wide audience of CLASSY target groups and investigate their user needs and preferences in using VR technologies for education and training purposes. This info would then fit into the design of CLASSY platform.

The questionnaire was disseminated in AUTh and SchooVR networks targeting teachers/trainers and students/trainees. It was available online via the LimeSurvey tool in two European languages (English and Greek). The survey was anonymous and GDPR was applied. The survey provided a fully quantitative picture of the current level of the experience of the participants with VR applications and what do they expect from a VR education software in the future.

Upon the completion of the survey, the MoSCoW (must-have, should-have, could-have, and won't-have, or will not have right now) methodology was used to prioritize the needs of the users which then will lead the technical efforts to developing a partially functional mockup for the users to test.

3. USE OF VIRTUAL REALITY IN EDUCATION

Nowadays, a lot of studies have been implemented regarding the use of Virtual Reality (VR) in education and training sectors. The use of (VR) in the education sector can be considered as one of the potential and natural progress of computer-assisted instruction (CAI) or computer-based training (CBT). The first time that the use of computers took part as an instructional aid was back to the early of 1950s. In the same framework, the VR evolved in the duration of the years (Pantelidis V. S., 2010).

There are many reasons to use VR in every level of education. More specifically, VR has the potential to make an important difference to lead learners, trainees, students and on the other side trainers, professors', tutors, to new discoveries. The learners have the ability to participate in the digital learning environment remotely but having with a sense of presence (Pantelidis V. S., 2010).

According to Winn (1993), some of the reasons to use VR in education are:

- *"Immersive VR furnishes first-person non-symbolic experiences that are specifically designed to help students learn material.*
- *These experiences cannot be obtained in any other way in formal education.*
- *This kind of experience makes up the bulk of our daily interaction with the world, though schools tend to promote third-person symbolic experiences.*
- *Constructivism provides the best theory on which to develop educational applications of VR.*
- *The convergence of theories of knowledge construction with VR technology permits learning to be boosted by the manipulation of the relative size of objects in virtual worlds, by the transduction of otherwise imperceptible sources of information, and by the reification of abstract ideas that have so far defied representation".*

The VR industry is now in an exciting stage. After many years of research and development, technology and its digital aspects have reached a tipping point where it is accessible to both consumers and industry and allows a large-scale introduction of market. *Every day there are new ideas on how VR can be used, new start-ups, increased investment and new projects, and they all build on the growing expectation of what VR technology can offer* (Bezegová et al., 2017).

VR, as a technology, has many advantages that can be drew upon by the users in the education. As far as the advantages are concerned, the use of VR to teach general and specific objectives can be characterized as a major one. Taking into consideration an investigation of Mikropoulos et. al. (1998), regarding *the attitude of education students towards VR as a tool in the educational process, and towards virtual learning environments on specific disciplines, found students had a favorable attitude towards VR in the educational process.* Utilizing its high innovational and technological background, VR can, easily, "catch the attention" of the students. This situation has been supported by many reports and research studies. To walk through a 3D environment, interact with an environment, and create their own 3D world has been also characterized exciting and very interesting by the students. VR also gives the ability for information that are based on new perspectives, while *it allows the examination of an object from a distance, showing the whole rather than a part* (Pantelidis V. S., 2010).

The use of VR, as a technology, has the disadvantages that are related with the cost and the time that is necessary for learning and using the software and the hardware. As it is happening with all the new technologies, each of these issues may fade as time goes by and VR becomes more commonly used in areas outside of education (Pantelidis V. S., 2010).

4. User Scenarios and Use Cases

The current chapter presents potential user scenarios of CLASSY platform. These user scenarios include:

- A High school teacher.
- A High school student.
- A University professor.
- A University student.
- A scenario with a user from the outside of education institutes.
- A lifelong learner.
- A user with disabilities.
- A VET (Vocational Education and Training) trainer user.

4.1 The Highschool Teacher User

Mr. Kostas

Mr. Kostas

Age:	50
Gender:	Male
Location:	Drama
Marital Status:	Married
Children:	2
Occupation:	Teacher
Education:	BSc Degree

Mr. Kostas is 50 years old and teaches History at a high school in Drama, Greece. He lives there with his family and during the summer vacation they travel across Greece.

Mr. Kostas would like to use Classy for his lessons. Being a history professor, he sees the potential of virtual travelling with his students in different eras in order to make his course more vivid. Him and his class could visit the arena of the Colosseum and make them realize the magnitude of the monument. Also, they could watch the eruption of Vesuvius as people lived it in Pompeii.

Because Mr. Kostas's school is located in Drama, Greece many of the historic monuments and landmarks of Greece are out of reach. As a person who likes travelling, he wants to show his students as many monuments as possible and wants to nurture their love for travelling. This is why he arranges as many educational trips

as he can, but they are not enough. With CLASSY he will not have these problems as he could arrange trips to historic monuments every week. They could visit the Parthenon, the Eiffel Tower or the Pyramids through the platform of Classy without ever leaving Drama.

The best possible education of his students is of great importance to Mr. Kostas, who tries very hard to make his students be interested in history and enjoy his lectures. He believes that the CLASSY platform is in the right direction in achieving just that.

In addition, Mr. Kostas teaches a few hours per week at schools in distant villages of the area. Commuting to these villages can become very difficult due to bad weather conditions combined with the poor road infrastructures. Under these circumstances, he would like to be given the capability of teaching his lesson remotely via the web on difficult occasions and CLASSY gives him that. The virtual classroom that CLASSY has to offer, is to ensure that personal relations between students and the interaction of the professor with them will not get lost, like in other platforms of video chatting.

4.2 The Highschool Student User

Fotini

Fotini lives with her family in Xanthi, Greece. She is the middle of three siblings but the last year that her elder brother went to study engineering in Crete she has shouldered more responsibilities, like spending many of her evenings helping in her parents' family business.

Fotini

Age:	16
Gender:	Female
Location:	Xanthi
Marital Status:	Unmarried
Occupation:	Student
Education:	High School Student

Fotini likes playing PC games and she is very good at them. She wants to become a programmer and make games of her own in the future. She believes that if the lessons at school were taught in CLASSY, they would be more interesting as they would resemble PC games. She believes that the way lessons are taught is old fashioned and with the

rapid advance in technology there is no reason to stay attached to old practices when there can be improvement.

Beyond practical reasons, there are other regional factors for which CLASSY is useful. This year Fotini didn't participate in the three-day educational trip which is arranged every year in Athens, due to financial difficulties her family was facing. Thus, missing her chance of visiting Acropolis with her friends, something she was very eager for. Fotini believes that if her school was using CLASSY she and her friends would be able to "go" on virtual trips all the time.

4.3 The University Professor User

Dr. Eleni

Dr. Eleni

Age:	45
Gender:	Female
Location:	Thessaloniki
Marital Status:	Married
Children:	None
Occupation:	Professor
Education:	PhD & Postdoc

Ms. Eleni is an Engineer who teaches in the Aristotle University of Thessaloniki. Her lecturing area is about production lines, mechanics, robotics and mechatronics. She is interested in the progress of science, and she frequently contributes in research papers, seminars and lectures.

Ms. Eleni has to go abroad and thus miss giving lectures several times during the academic year. This is the reason she believes that having the capability of remote education is mandatory. Nowadays, where everyone has a fast pace of life, it is really important to make all of our lives easier with facilitations like remote learning. Being a person of technology and science, she is excited by the CLASSY platform and all the capabilities it can offer, in order to improve the learning experience.

Ms. Eleni alongside her work travels will be able to deliver her lectures through CLASSY directly by the most innovative production lines and the most exquisite topics of seminars.

4.4 The University Student User

Aristides

Aristides is an undergraduate student in the School of Architecture at the National Technical University of Athens. He lives in Athens during his studies but he is from Florina. For financial reasons he has to work alongside his studies as a waiter.

Aristides

Age:	20
Gender:	Male
Location:	Athens
Marital Status:	Unmarried
Children:	None
Occupation:	Student/Waiter
Education:	High School

Aristides is a person who loves travelling and wants to experience new cultures but until he graduates he is not able to do so. He would like his lectures to be given through CLASSY in order to have a better understanding and a perspective of architecture. He believes that through the virtual environment CLASSY has to offer he will be able to learn way more about architecture than with photos from a book. Being able to see magnificent structures of utmost significance in virtual reality is going to bring the learning experience to a whole new level.

In addition, Aristides feels exhausted and he is having difficulties working and attending his classes at the same time. Public transportations is very tiresome and he thinks that the ability of remote learning will help him a lot.

Dr. Katerina

Age:	54
Gender:	Female
Location:	Athens
Marital Status:	Married
Children:	1
Occupation:	Chairman at TCG
Education:	PhD

4.5 A user Outside of Education Institutes

Dr. Katerina

Ms. Katerina is the chairman of the Technical Chamber of Greece. She lives in Athens with her husband and her kid. She has to frequently organize and coordinate lectures and seminars for all the members all across Greece.

Ms. Katerina would use CLASSY because of the better interaction between speaker and audience just as for the better visualization of technical issues, which is very important in her profession.

4.6 The Lifelong Learner User

Ms. Angela

Ms. Angela lives with her husband in the suburbs of Thessaloniki. She is a very active woman and she always undertakes new tasks. During the course of a day she might do arts and crafts, paint or take care of her flowers. She is usually looking for new ideas and techniques on the internet by herself.

Ms. Angela

Age:	65
Gender:	Female
Location:	Thessaloniki
Marital Status:	Married
Children:	2
Occupation:	Retired
Education:	Unknown

Ms. Angela would love to use CLASSY in order to learn all those things, because the virtual reality element will be really helpful in learning detailed skills such as arts and crafts.

Because of her age and the distance there is from her house to the metropolitan area, she doesn't like attending classes about her hobbies in person. As a result, she resorts to amateur videos and lessons on the internet. However, if lessons about her hobbies were carried out through the CLASSY platform, she would definitely attend them.

4.7 A user with disabilities

Pantelis

Pantelis

Age:	16
Gender:	Male
Location:	Thessaloniki
Marital Status:	Unmarried
Children:	None
Occupation:	Student
Education:	High School Student

Pantelis lives in Thessaloniki with his parents. He is a person with mobility difficulties and he is using an electric wheelchair. Pantelis has a strong personality and many interests. He is a music enthusiast and attends guitar lessons in the national conservatory of Thessaloniki.

Pantelis would love to have more hobbies but his mobility difficulties are often the reason not to. He likes the idea of CLASSY and how he will be able to virtually attend many classes with ease and furthermore, be able to get in touch with new people with the same interests through a virtual environment that is resembling reality itself.

4.8 A VET Trainer User

Mr. Asterios

Mr. Asterios is 40 years old and he lives in Patra. He is a car mechanic and he runs an auto repair shop. He is also a trainer in an Institute of Vocational Training where he teaches some evenings. Many of his students are middle aged people who try to learn a new occupation. Balancing two jobs is not an easy task let alone if you have a family. Mr. Asterios would use CLASSY because it is the only remote learning platform where he could teach and still make his students understand the mechanics. The nature of his lessons is such that the visual representation of the

Mr. Asterios

Age:	40
Gender:	Male
Location:	Patra
Marital Status:	Married
Children:	None
Occupation:	Car Mechanic
Education:	Technical University

problem is mandatory. He could never teach about Engine Maintenance without having an actual engine in front of his class.

However, with CLASSY he can virtually repair and maintain every engine he wants and nevertheless remotely. Having equipment problems will no longer be an issue as he can virtually create every mechanical part of a car and for all the different car models he wants. In the past he had to resort in just a few parts to demonstrate everything he can about car mechanics, but this was a difficult task.

5. USER REQUIREMENTS FOR CLASSY PLATFORM

5.1 Questionnaire survey implementation

In the scope of the current study, the questionnaire survey method was selected to reach out to CLASSY targeted stakeholders and map their needs and preferences. The survey was designed aiming at mapping the user requirements of the CLASSY targeted users i.e. teachers/trainers and students/trainees. The main objectives was to identify the obvious and/or hidden user needs and can lead to better customized services, with increased chances of being effectively adopted in practice as well as to collect insights regarding the current experience with VR applications and what do the users expect from a VR education platform.

The questionnaire of the online survey consisted of 13 questions including a mock-up of the platform and was developed in two languages, English and Greek (ANNEX I). The Greek questionnaire was disseminated in specific groups of AUTh (Academic personnel, Students & Professors) and the English questionnaire was disseminated to Scoil Mhuire (Offaly, Ireland), St. Colmans National School, Mucklagh (Offaly, Ireland), Ballyadams National School, Stradbally (Laois, Ireland) and Killina Presentation Secondary School, Tullamore (Offaly, Ireland).

The survey was set up and run via limesurvey[1] software and was anonymous. GDPR was also applied. An information sheet and a consent form was shared with the respondents prior to the completion of the survey. In addition, the questionnaire, the information sheet and consent form was approved by the Ethics Committee and the Data Protection Officer (DPO) of AUTh.

A total of 944 users completed the survey. From those, 125 were teachers/trainers and 818 were students/trainees.

In the following chapters, the results of the user requirements survey are presented in detail per country and per target group.

[1] https://www.limesurvey.org/

5.2 Analysis of the results in Greece

In Greece a total of 904 responses were collected. From the data provided (Figure 1), it was found that the main percentage of the people involved in the questionnaire, were students/trainees (87%) and a smaller percentage were teachers/trainers (13%).

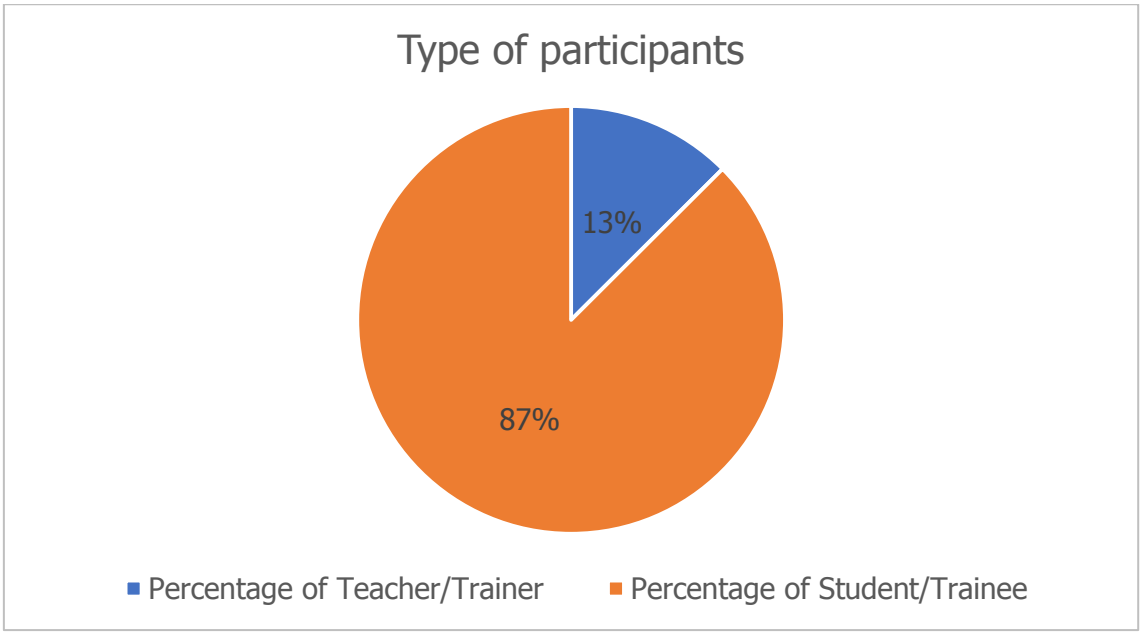

Figure 1: Percentage of teacher/trainer and a student/trainee as a user in Greece

5.2.1 Teachers/trainers

Almost all the teachers/trainers (84%) seem to feel extremely familiar or moderately familiar with remote education, whereas only a small percentage (16%) were somewhat familiar, slightly familiar or not familiar at all, with remote education (Figure 2). This can be explained by the fact that the survey was elaborated in a chronological period where the COVID-19 pandemic provided the need for remote education, thus for the teachers remote education was mandatory.

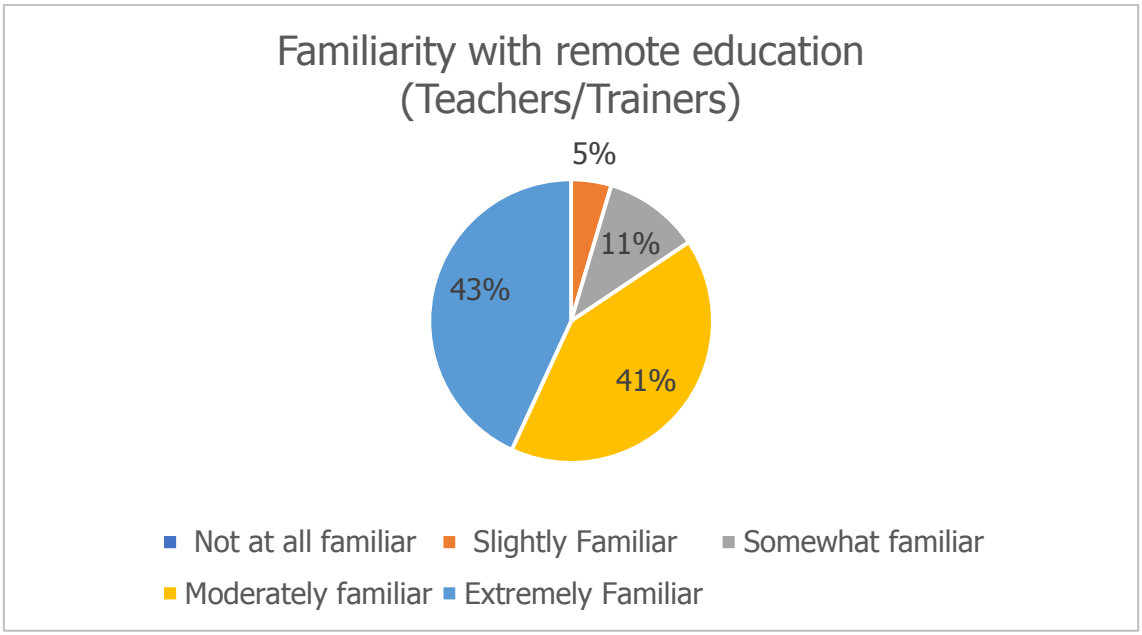

Figure 2: Familiarity of teachers/trainers with remote education

These percentages decreased profoundly when the teachers were asked the same question about virtual reality instead of remote education (Figure 3), as more than half of the subjects were somewhat, slightly or not familiar at all with the subject (68%), and an overwhelming percentage of the subjects (77%) had in fact never used a virtual reality software for education purposes (Figure 4). The small amount of people that had an experience with virtual reality education, enjoyed the remote learning and clarity of lessons but weren't so keen on factors that had to do with poor connection.

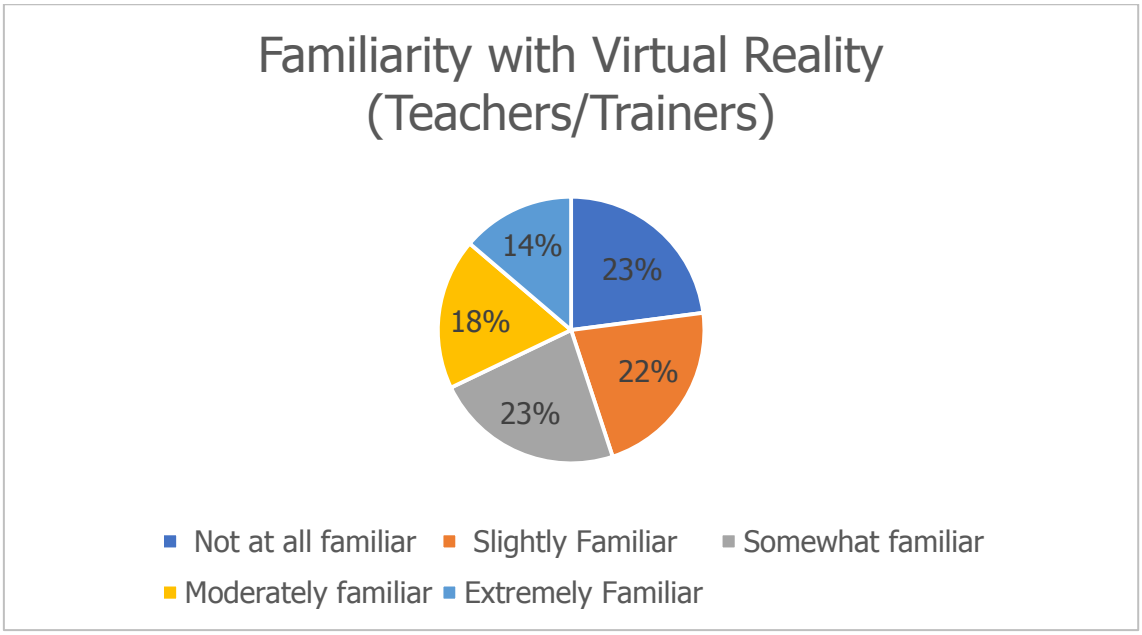

Figure 3: Familiarity of teachers/trainers with Virtual Reality

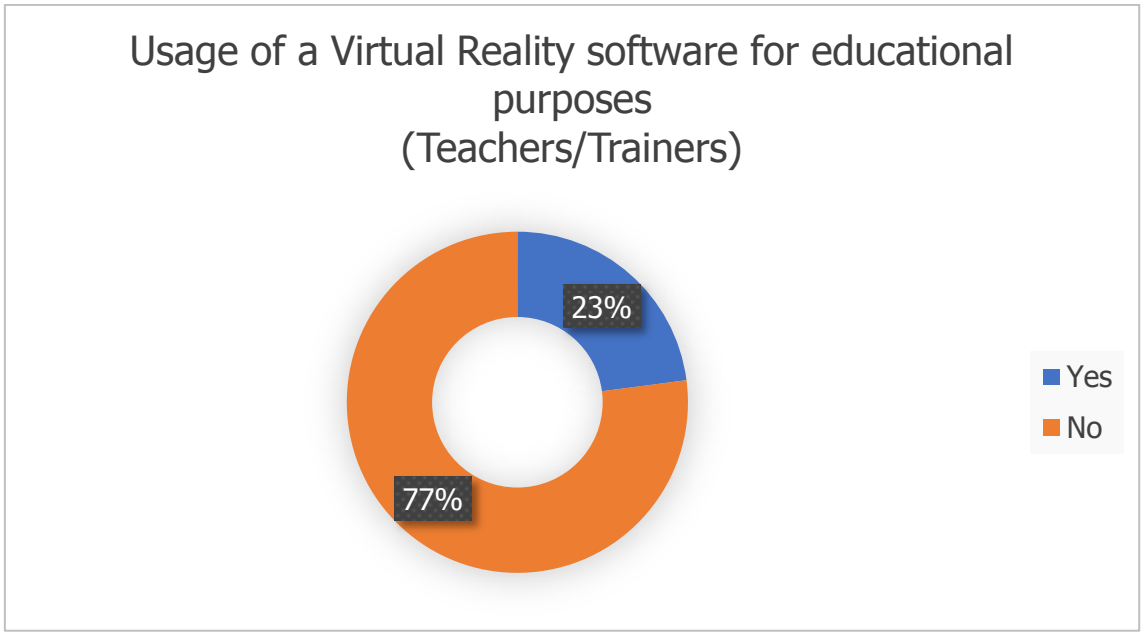

Figure 4: Usage of a Virtual Reality software for educational purposes by teachers/trainers

The plethora of teachers/trainers asked, weren't in possession of virtual reality equipment (83%) (Figure 5), and only a small percentage of them (40%), were willing to buy the necessary virtual reality equipment in order to attend or hold a remote class (Figure 6). Many of them (42%) were still unsured if they needed the VR equipment for holding their classes.

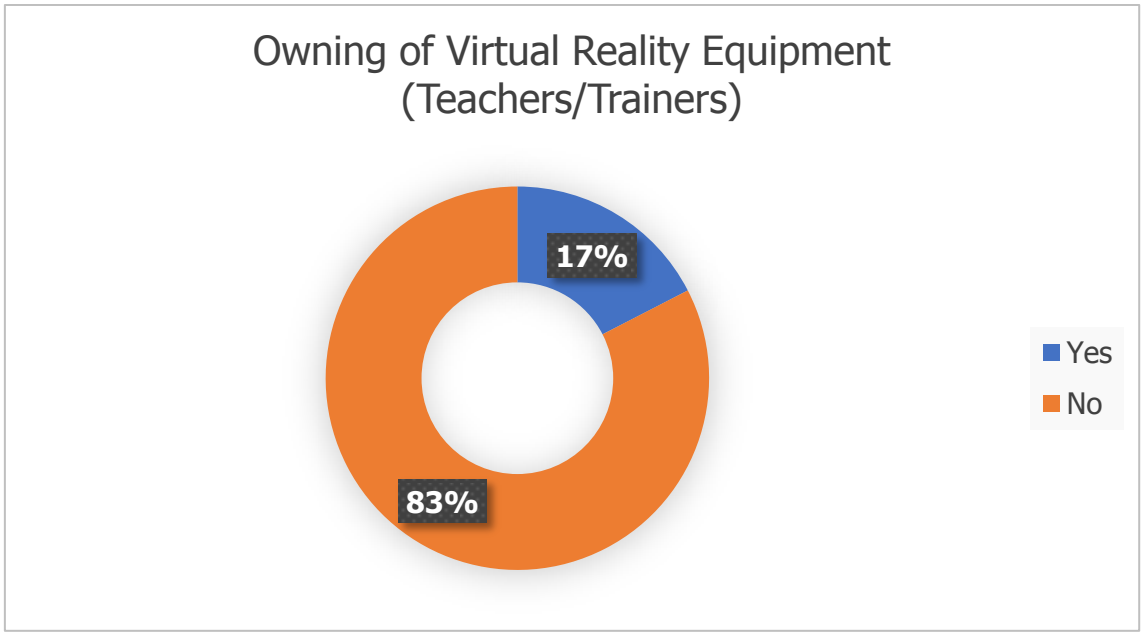

Figure 5: Owning of any Virtual Reality Equipment

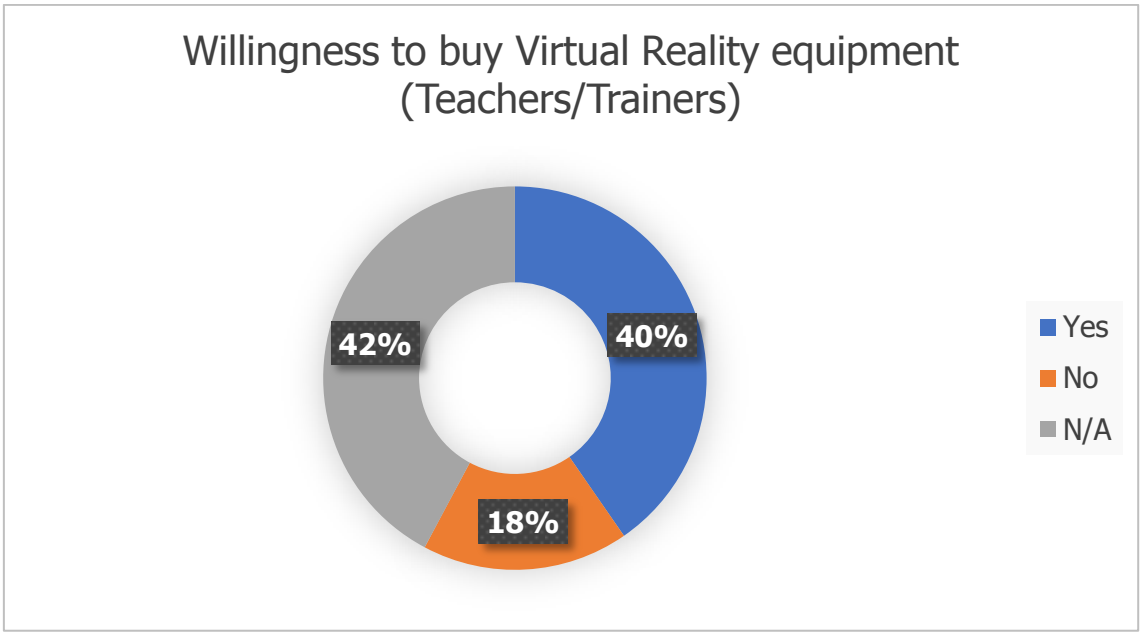

Figure 6: Willingness to buy Virtual Reality equipment in order to attend/hold a remote class

When asked, the teachers/trainers predominantly used a laptop (68%) or a personal computer (31%) for remote education (Figure 7). The new founded mobility and restriction of the access in labs and classes inside universities and research labs due to the pandemic, can be seen as an answer for the majority of teachers/trainers holding a laptop.

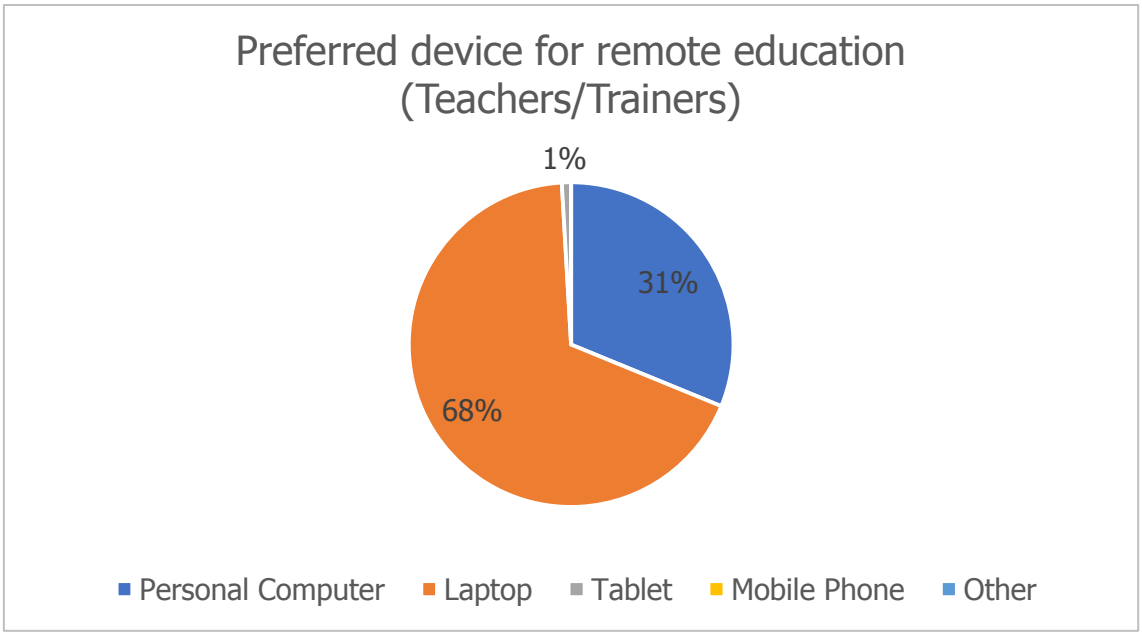

Figure 7: The device that the teachers/trainers prefer for remote education purposes

An outstanding percentage of teachers/trainers (74,3%), wanted to login to the platform by a method of authentication (Figure 8), and only a small percentage of them wanted to use methods of logging in, such as open links (10,1%) or registration (18,3%).

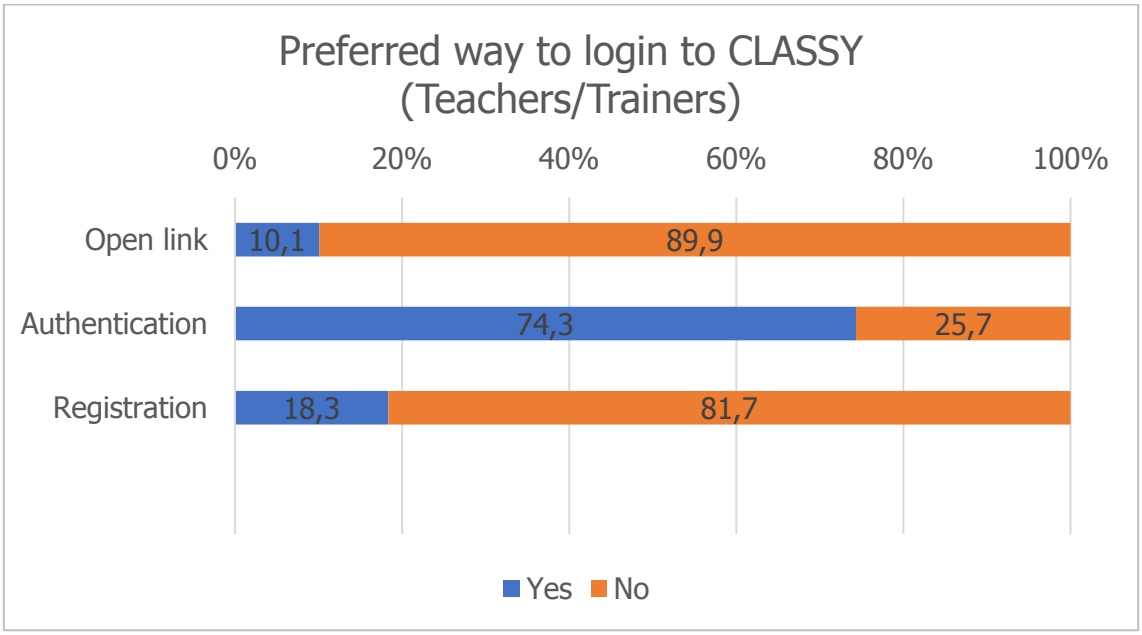

Figure 8: The method the teachers/trainees would like to login to the platform

Most of the teachers/trainers asked (83%), wanted to have the possibility to add their own level content in the platform (Figure 9), as it is presumed that they would like the platform, to be a genuine mirror of the content that they would have shared in a real classroom. In addition 84% of the teachers/trainers wanted to see how each student/trainee would have performed in real-time (Figure 10).

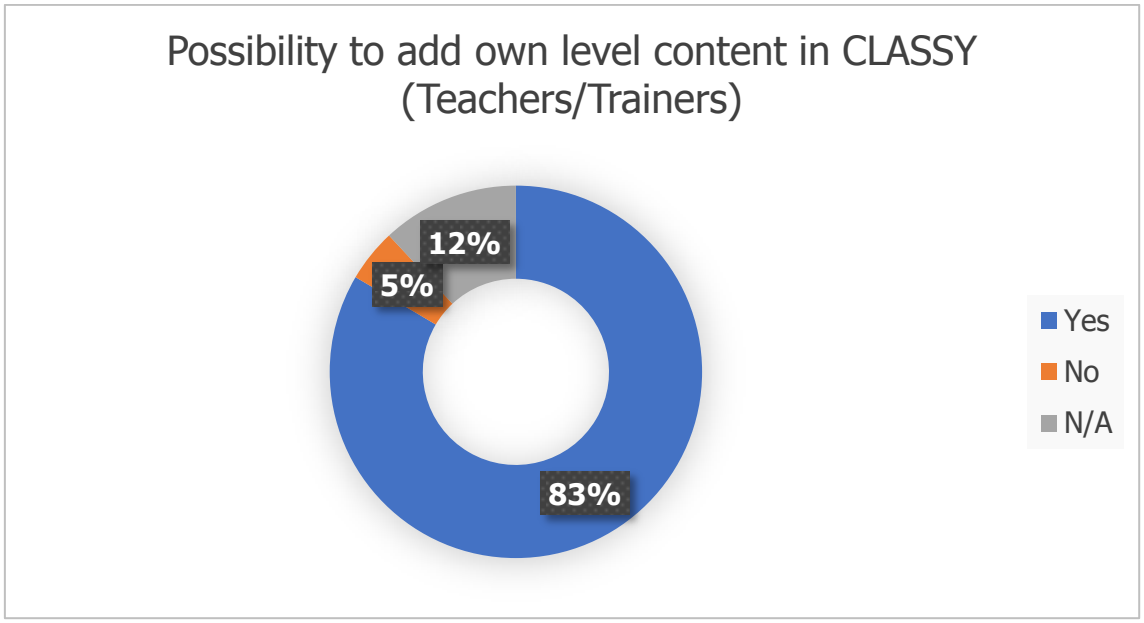

Figure 9: Possibility to add own level content in the platform

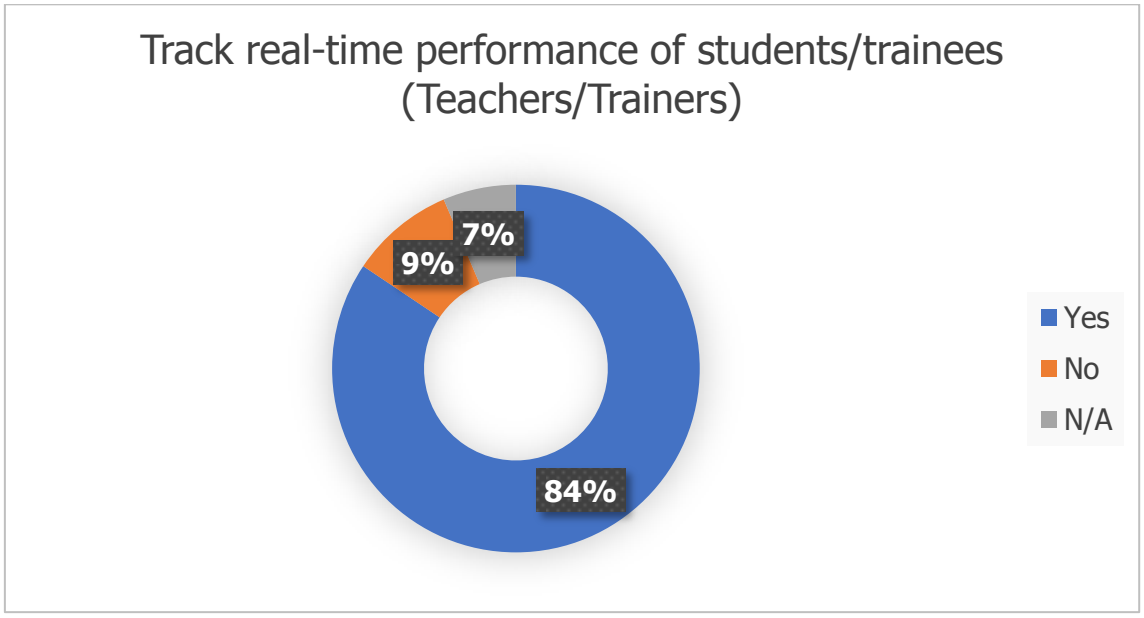

Figure 10: Possibility to know how each student/trainee is performing in real-time

The majority of teachers/trainers (71%) preferred to record and save the sessions so as to access them later to see the performance of the students/trainees (Figure 11). This can be an outstanding feature which can put into light the need of virtual classrooms instead of normal ones, as this practice can lead in a better collaboration between teachers/trainers and students/trainees.

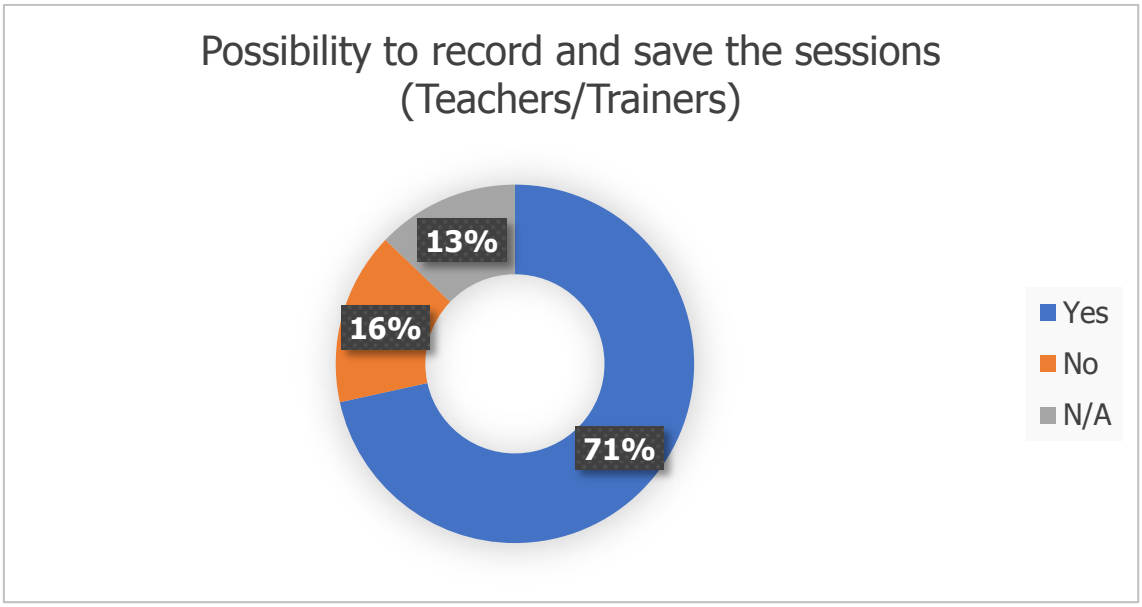

Figure 11: Possibility to record and save the sessions so as to access them later to see the performance of the students/trainees

More than half of the teachers/trainers asked (Figure 12), were willing to share their personal data for joining the platform, such as their name (70,6%), their surname (67%) and their e-mail (79,8%), while only a very little percentage (9,2%), was not willing to give any information.

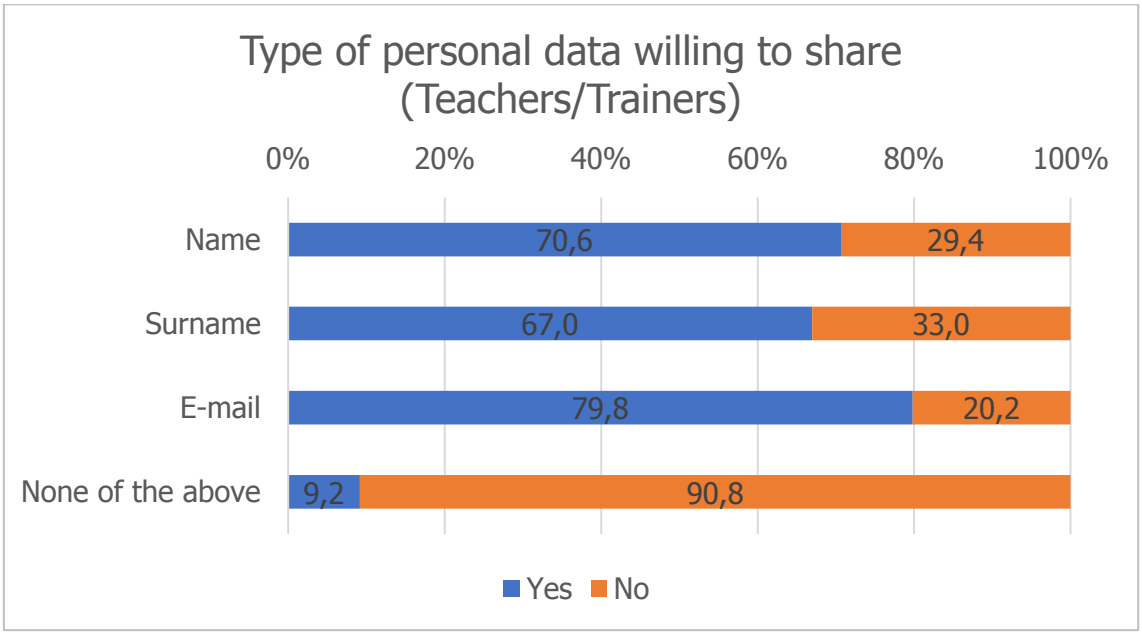

Figure 12: The kind of personal data the teachers/trainers are willing to share for joining the platform

A percentage of 84% of teachers/trainers would like to interact with the other users (Figure 13), which is presumed to be normal as classrooms are places of interaction

and knowledge such as their virtual counterparts are, and almost all teachers/trainers (86%) would like to have access to the lecture/lesson afterwards (Figure 14).

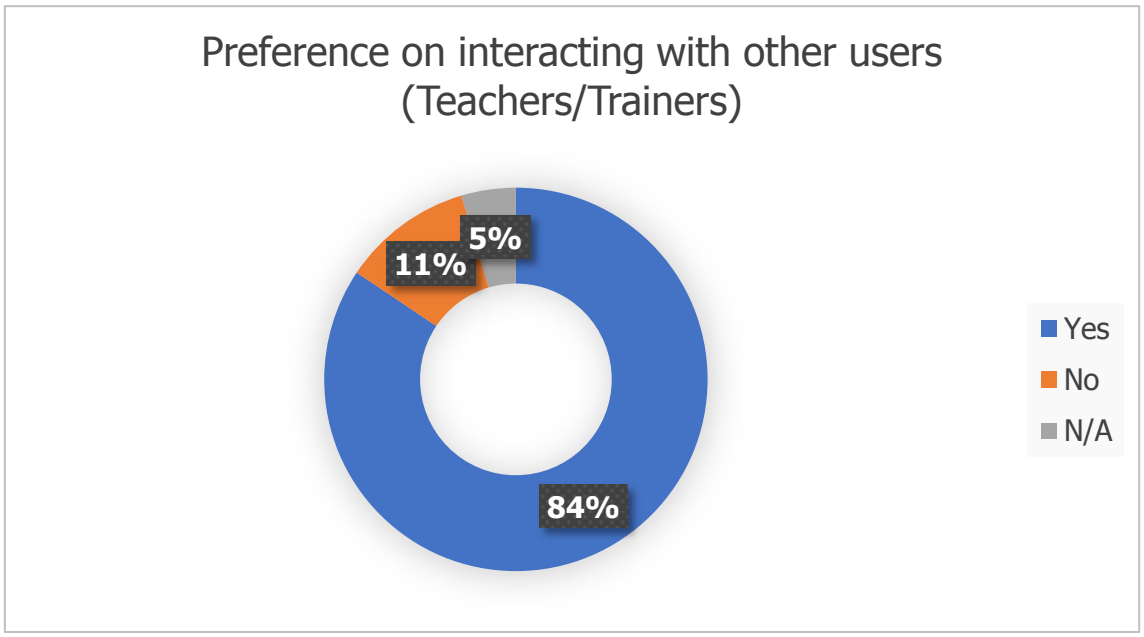

Figure 13: Preference on interacting with other users

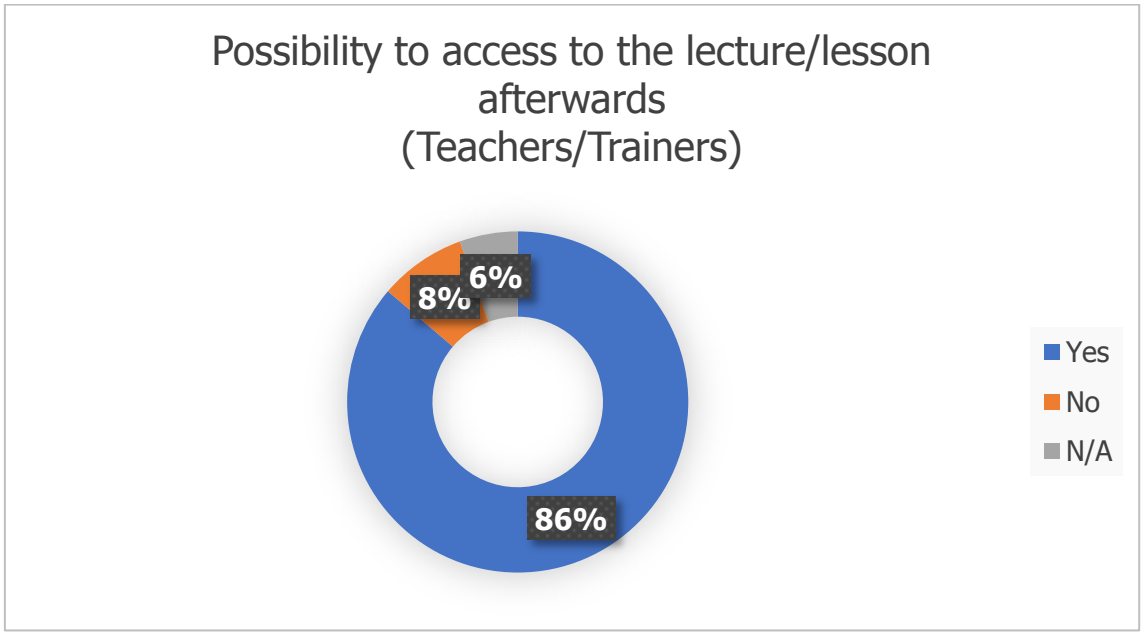

Figure 14: Possibility to access to the lecture/lesson afterwards

5.2.2 Students/trainees

Almost all the students/trainees (82%) seem to feel extremely familiar or moderately familiar with remote education, whereas only a small percentage (18%) were somewhat familiar, slightly familiar or not familiar at all, with remote education (Figure 15).

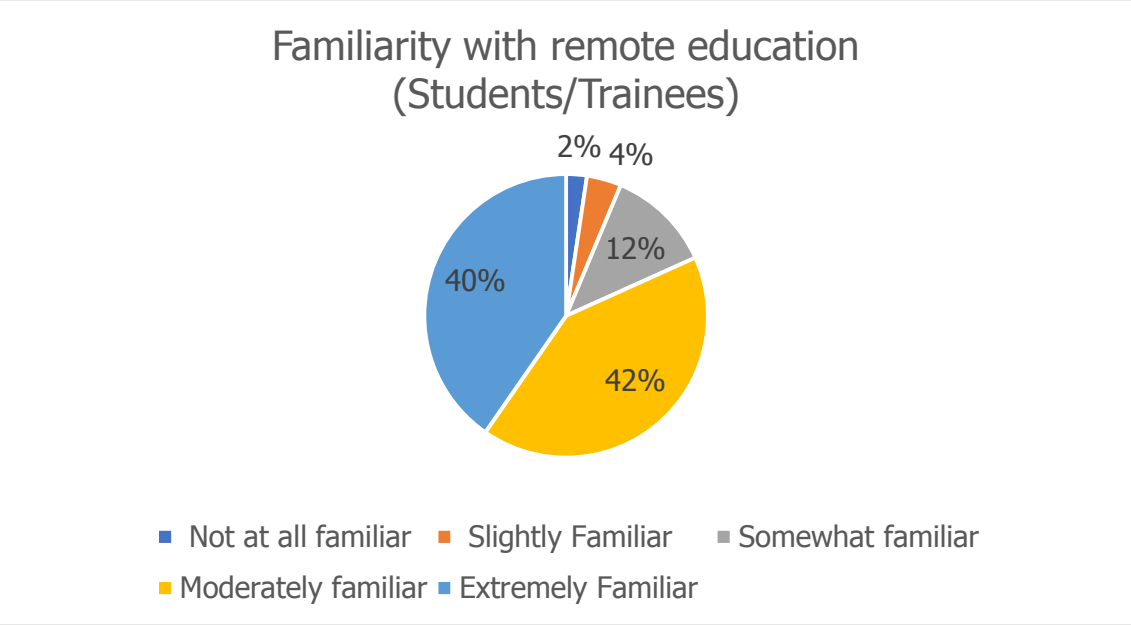

Figure 15: Familiarity of students/trainees with remote education

The above percentages decreased when the students were asked the same question about virtual reality instead of remote education (Figure 16), as more than half of the students were somewhat, slightly or not familiar at all with the subject (65%), and a huge percentage of the subjects (66%) had in fact never used a virtual reality software for education purposes (Figure 17). The small number of students/trainees that had an experience with virtual reality education, mentioned that they enjoyed the customization and clarity of lessons but weren't so keen on factors that had to do with the tiredness of following the lectures on a virtual reality platform.

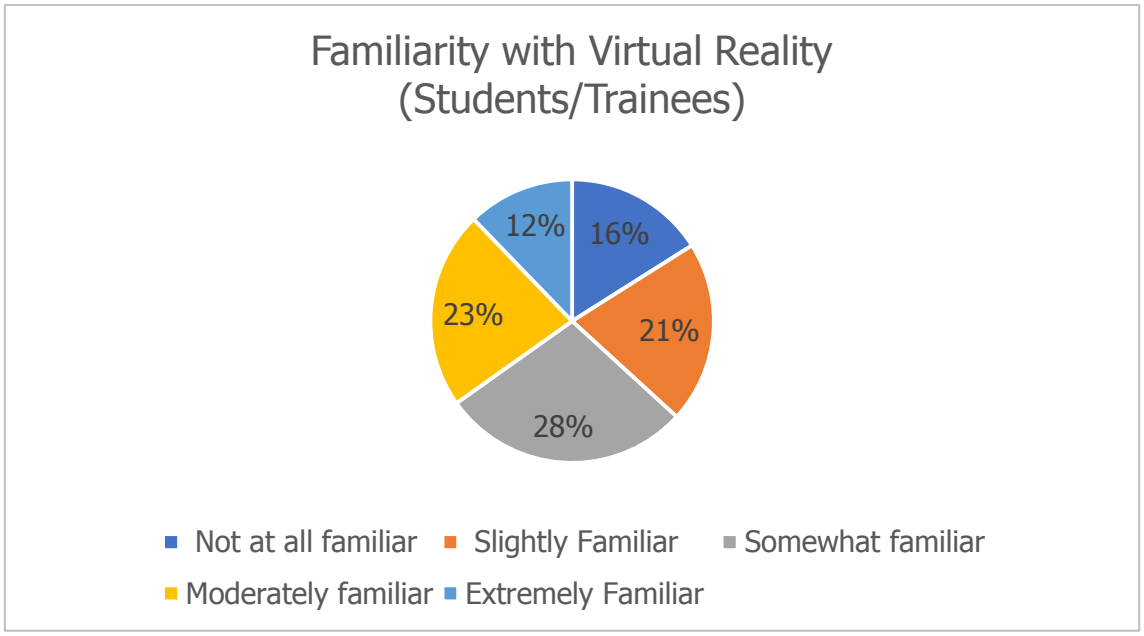

Figure 16: Familiarity of students/trainees with Virtual Reality

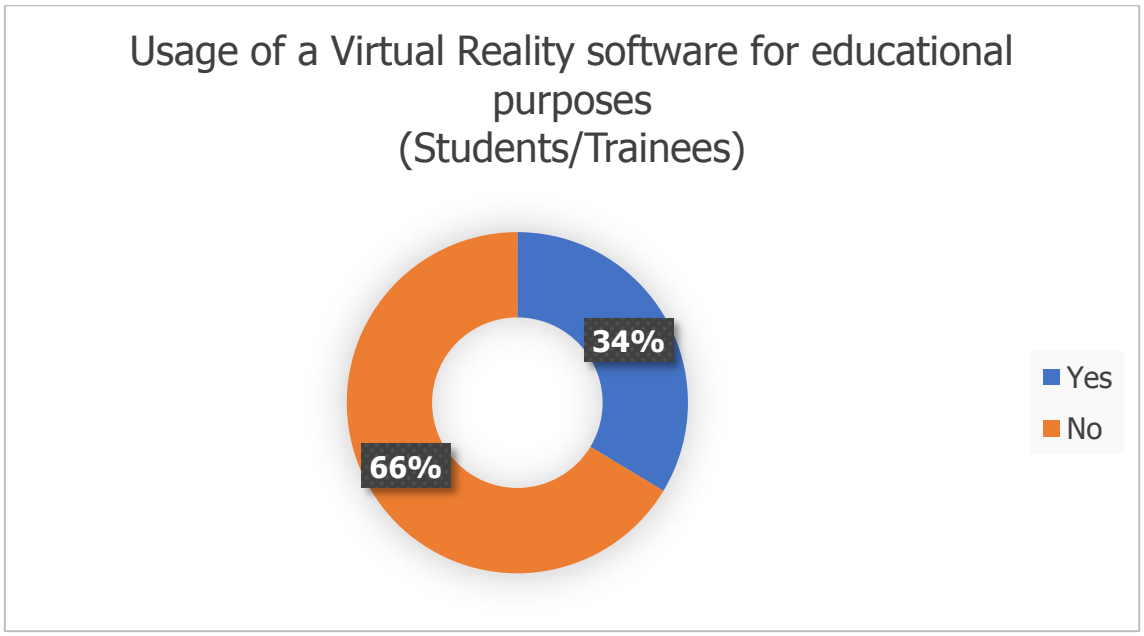

Figure 17: Usage of a Virtual Reality software for educational purposes by students/trainees

The plethora of students/trainees asked, weren't in possession of virtual reality equipment (77%) (Figure 18), and only 31% were willing to buy the necessary virtual reality equipment in order to attend a remote class (Figure 19), which is even smaller (number) than that of teachers (presumably due to the economic disparity between the two groups). Many of them (40%) were still unsured if they needed the VR equipment for attending their classes.

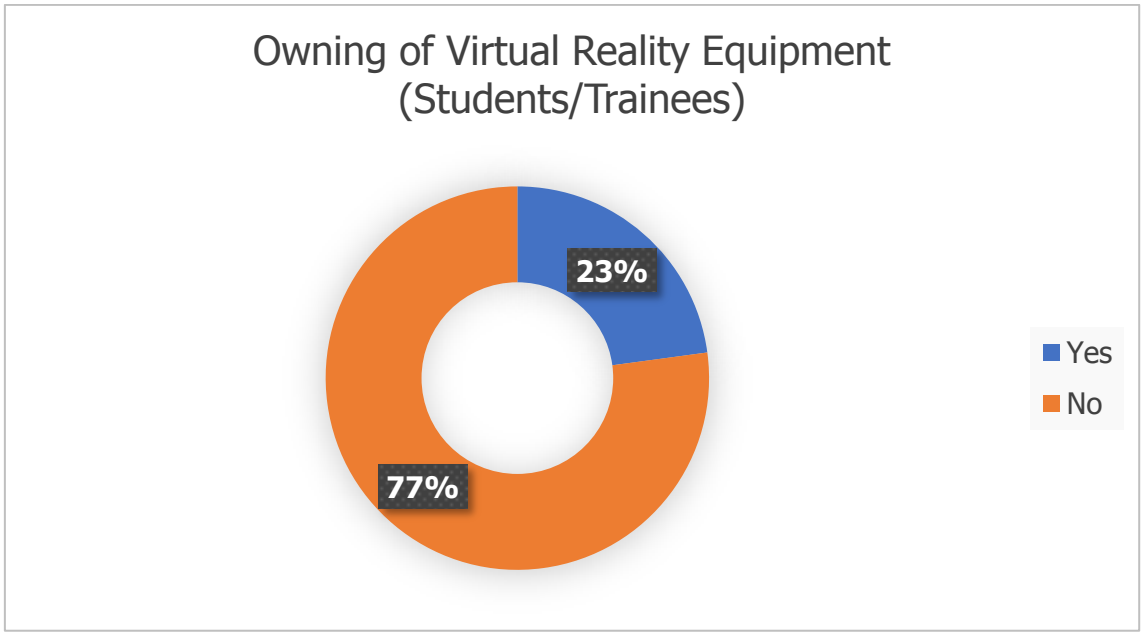

Figure 18: Owning of any Virtual Reality Equipment

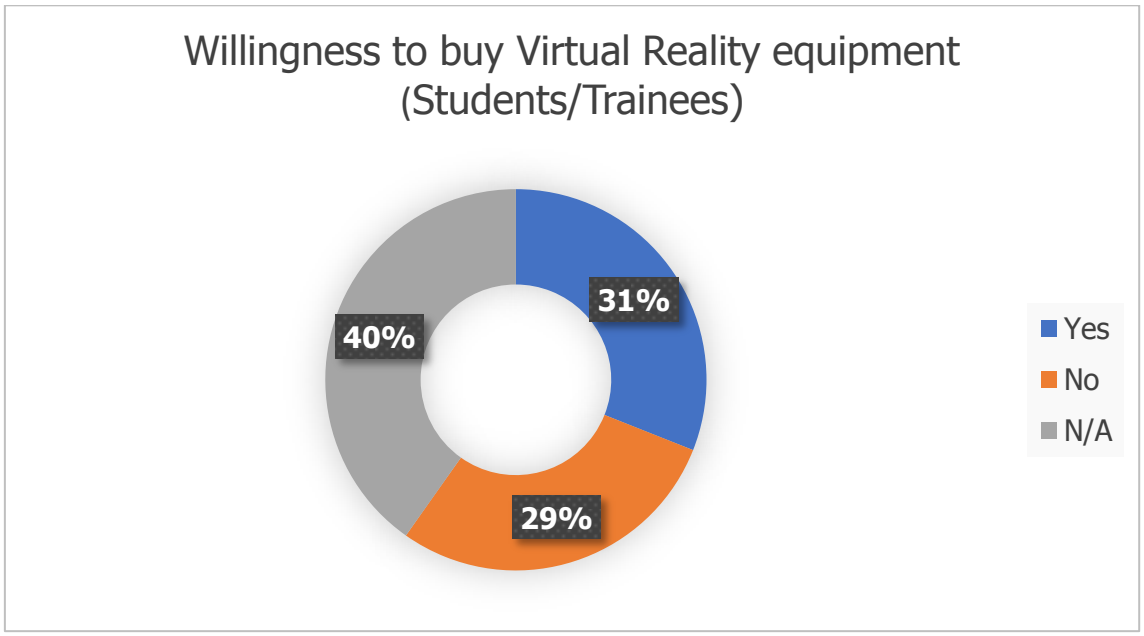

Figure 19: Willingness to buy Virtual Reality equipment in order to attend/hold a remote class

When asked, students/trainees predominantly seem to use a laptop (74%) or a personal computer (22%) for remote education (Figure 20). The need for attending classes either online from anywhere possible or attending in-situ classes and the generic need for mobility, can be seen as an answer for the majority of students/trainees holding a laptop.

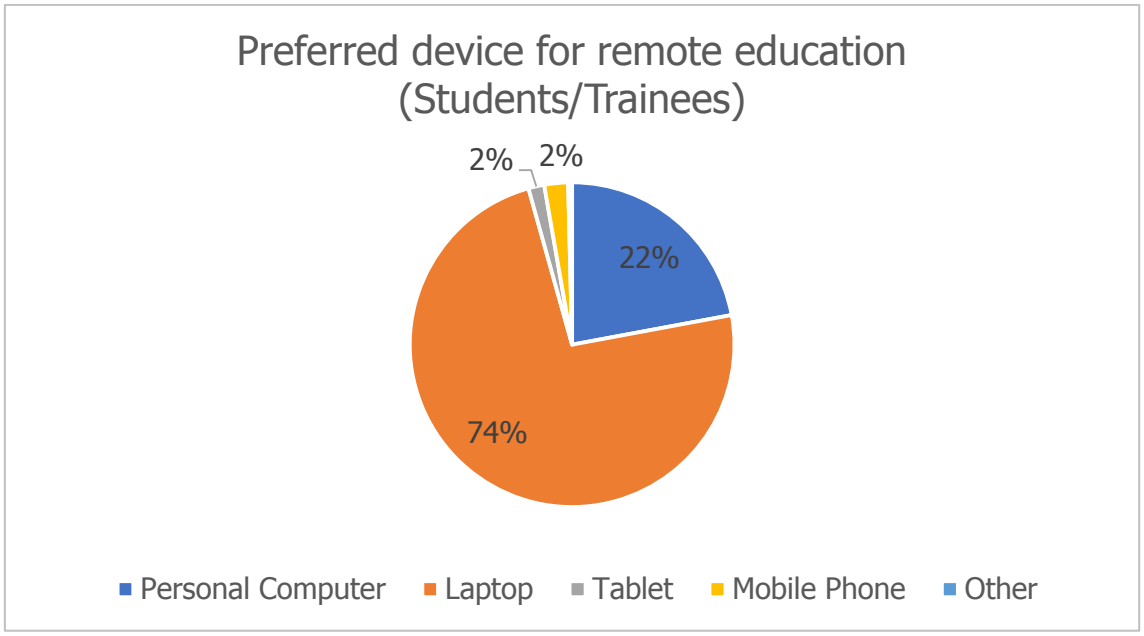

Figure 20: The device that the students/trainees prefer for remote education purposes

More than half of students/trainees (63,5%), wanted to login to the platform by a method of authentication (Figure 21). Lower percentages of them wanted to use methods of logging in, such as open links (16,6%) or registration (19,2%).

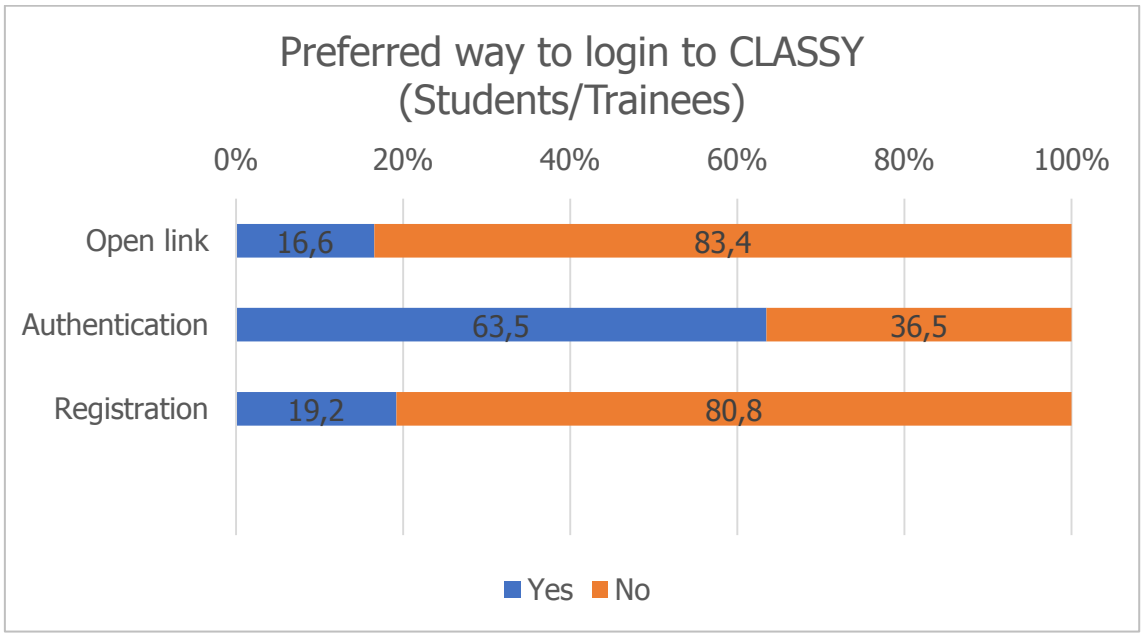

Figure 21: The method the students/trainees would like to login to the platform

More than half of the students/trainees asked (Figure 22), were willing to share their personal data for joining the platform, such as their name (67,9%), their surname (45,2%) and their e-mail (66%), which – especially for surnames – was way below the

respective teachers numbers, while only a very little amount (9,3%), was not willing to give any information.

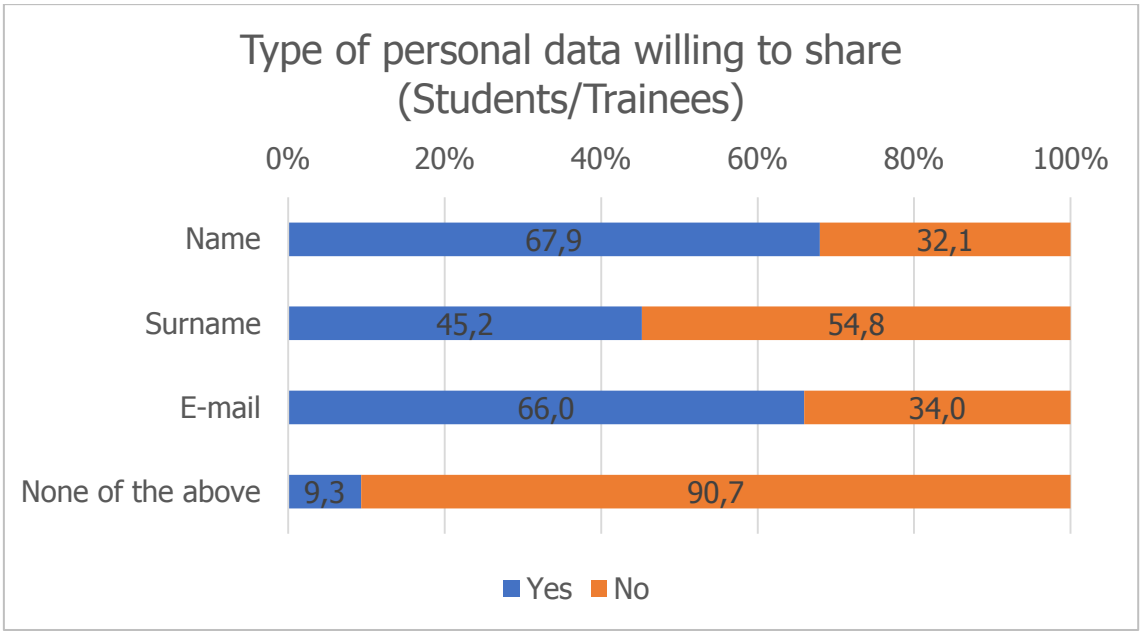

Figure 22: The kind of personal data the students/trainees are willing to share for joining the platform

A percentage of 83% of students/trainees wanted to interact with the other users (Figure 23), and almost all students/trainees (92%) wanted to have access to the lecture/lesson afterwards (Figure 24), as the online material can have valuable information for their learning schedule.

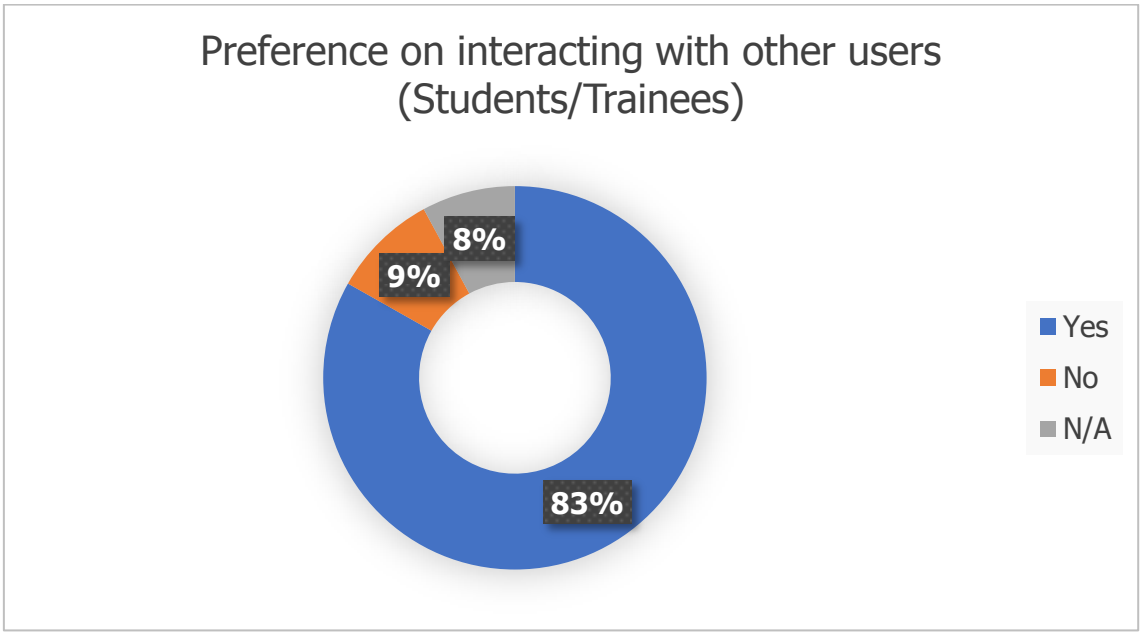

Figure 23: Preference of students/trainees on interacting with other users

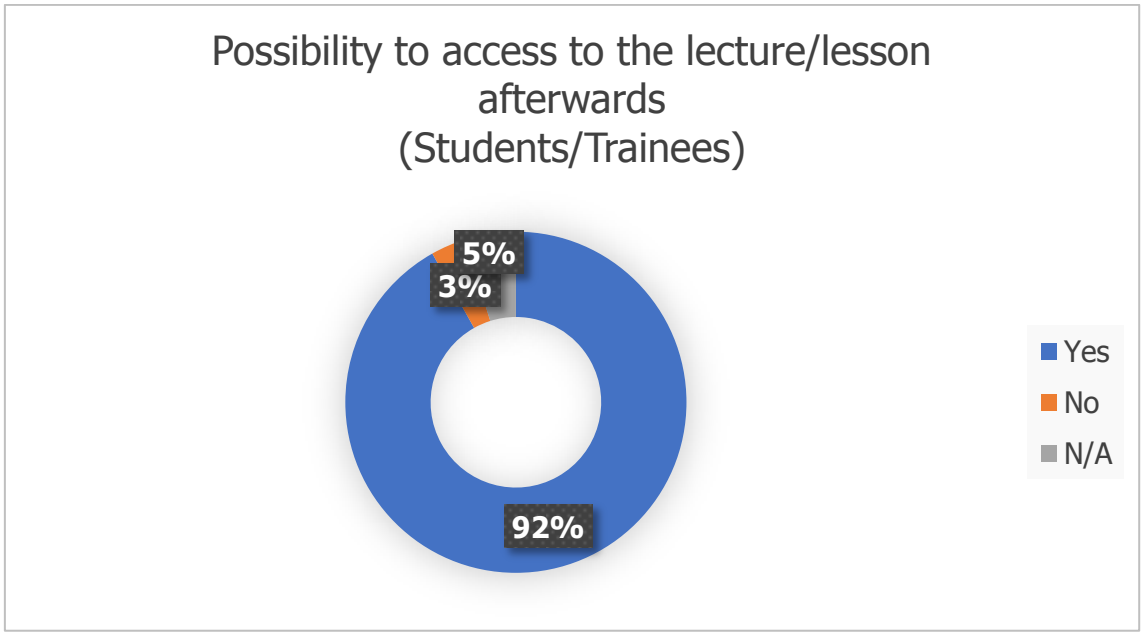

Figure 24: Preference of students/trainees on accessing the lecture/lesson afterwards

5.3 Analysis of the results in Ireland

In Ireland a total of 40 responses were collected. The results collected show that a vast percentage of the people involved in the questionnaire, were students/trainees (80%) and a lower percentage were teachers/trainers (20%) (Figure 25).

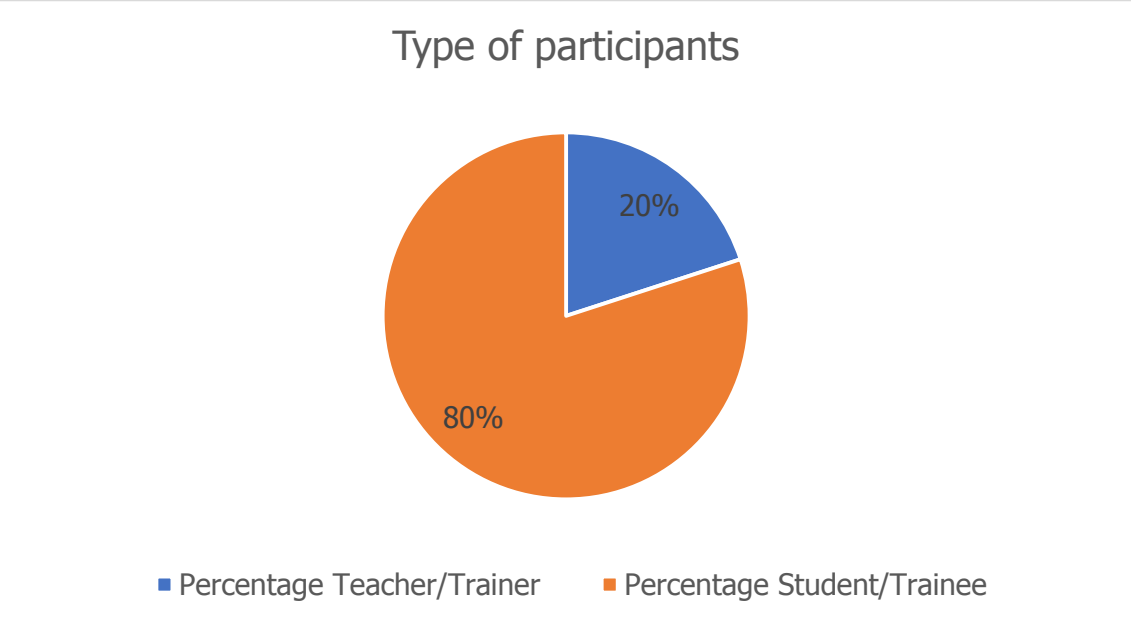

Figure 25: Percentage of teacher/trainer and a student/trainee as a user in Ireland

5.3.1 Teachers/trainers

The overwhelming majority of the teachers/trainers (88%) were moderately familiar or extremely familiar with remote education, while only a very small percentage (12%) were slightly familiar, somewhat familiar or not familiar at all, with remote education (Figure 26). This can be explained by the chronological period of the elaboration of the survey as the COVID-19 pandemic made mandatory remote education for teachers and provided them the need of not in-situ teaching.

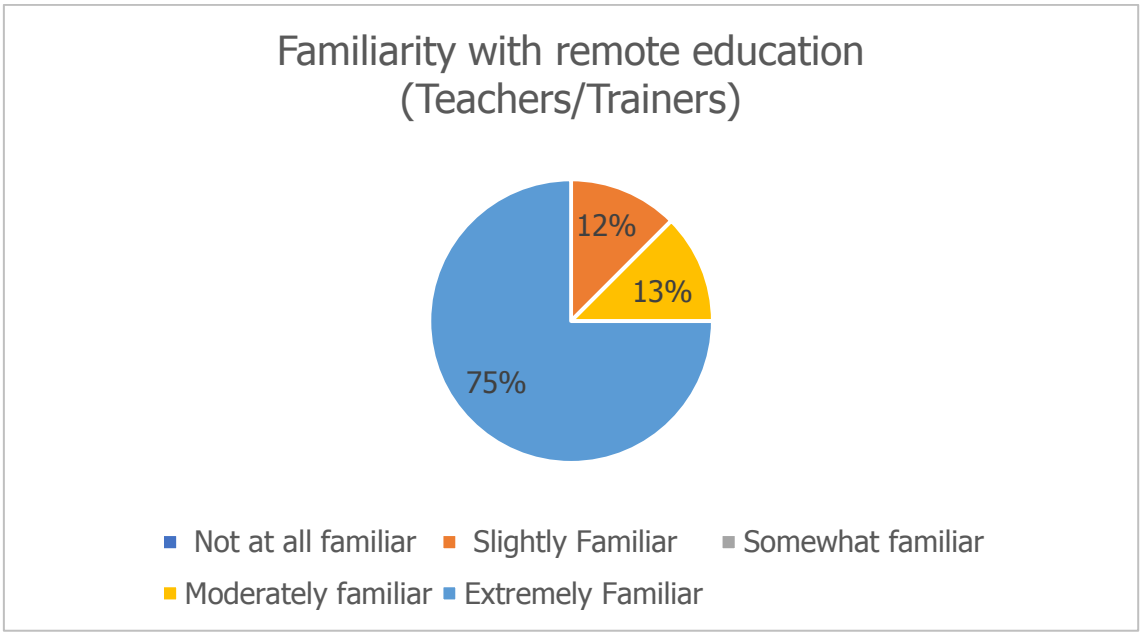

Figure 26: Familiarity of teachers/trainers with remote education

These percentages took a deep decrease when the question asked to the teachers was about virtual reality instead of remote education (Figure 27) as three out of four of the subjects (75%) were slightly, somewhat or not familiar at all with virtual reality and a big amount of them (63%) had never used virtual reality software before (Figure 28).

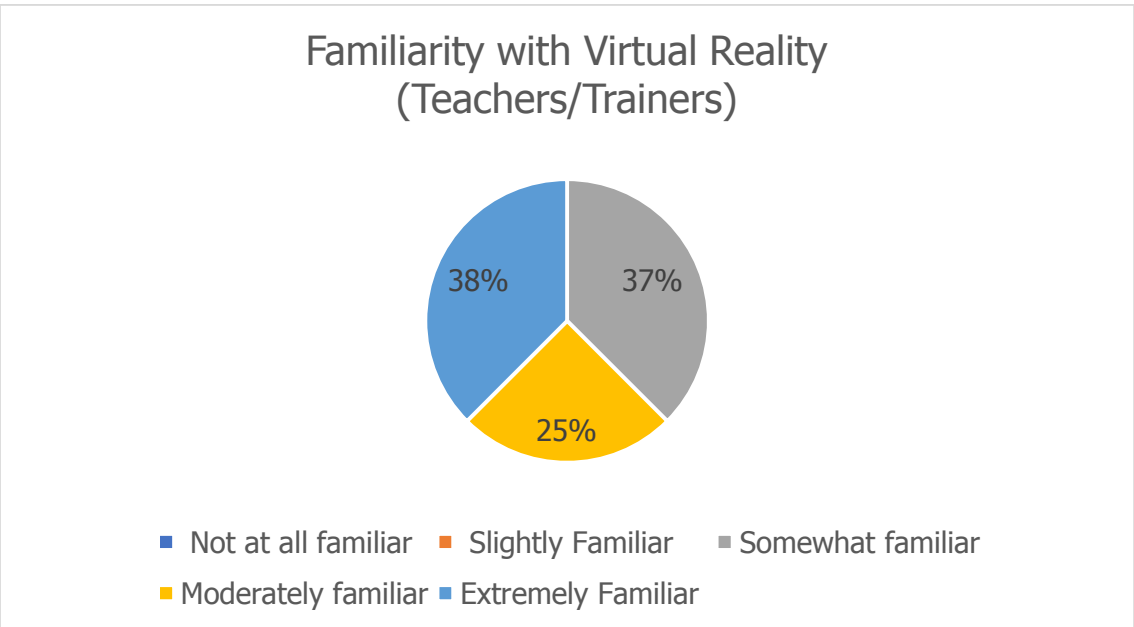

Figure 27: Familiarity of teachers/trainers with Virtual Reality

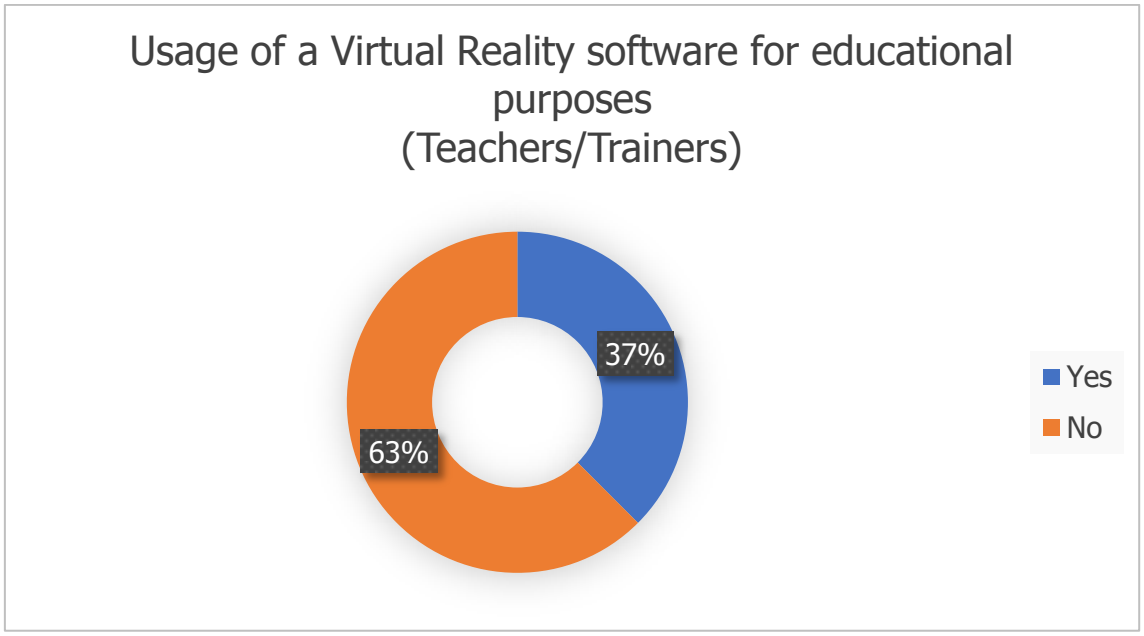

Figure 28: Usage of a Virtual Reality software for educational purposes by teachers/trainers

The vast amount of teachers/trainers that were asked (75%), didn't have in their possession any virtual reality equipment (Figure 29) though half of them (50%) were willing to buy the virtual reality equipment that was necessary for them to hold or attend a remote class (Figure 30). Most of the other half of teachers/trainers (37%) were unsure if they needed the VR equipment necessary in order to hold or attend their classes.

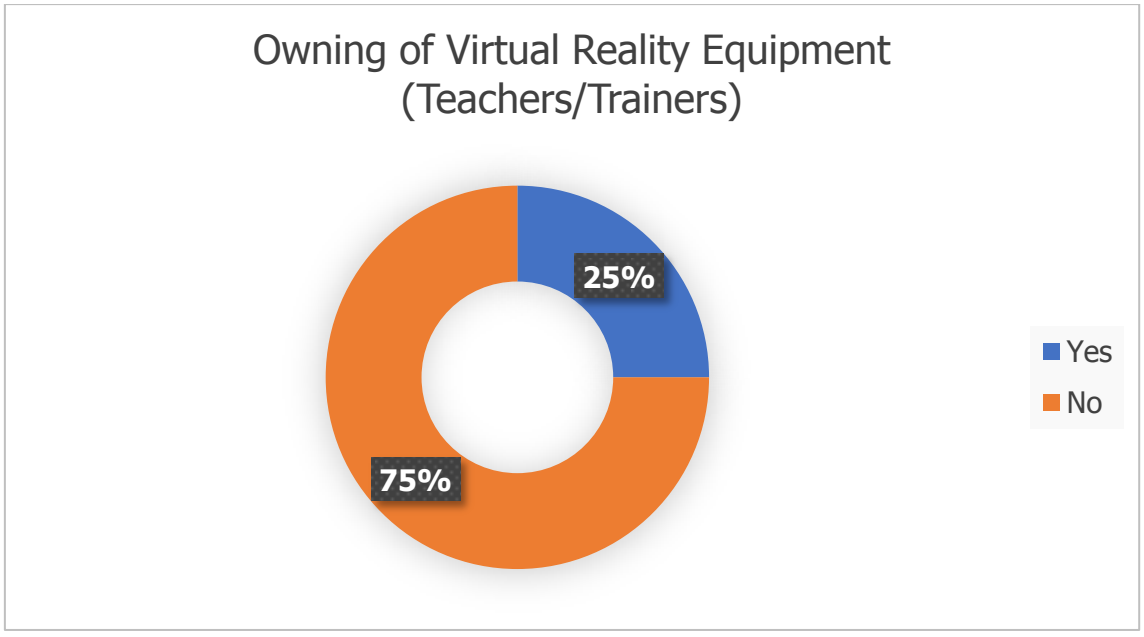

Figure 29: Owning of any Virtual Reality Equipment

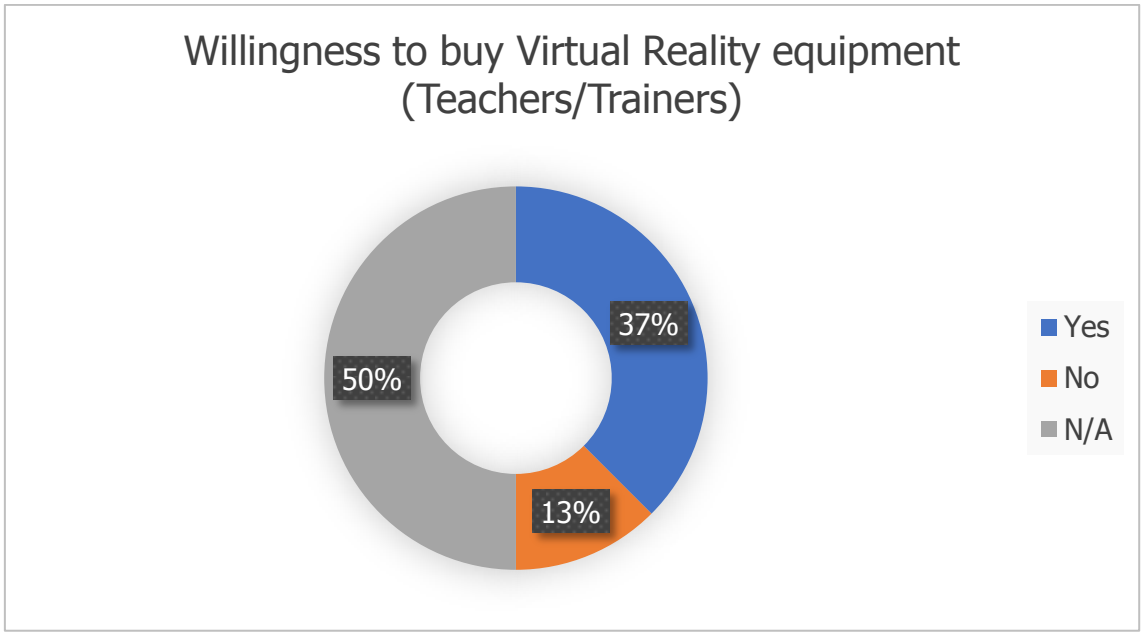

Figure 30: Willingness to buy Virtual Reality equipment in order to attend/hold a remote class

The predominant majority of teachers/trainers asked used a laptop (62%) or a personal computer (25%) for remote education (Figure 31). Again, it seems that the pandemic played a paramount role in this part of the survey as restrictions of the access to labs and classes and a new founded mobility can be ratified for the dominance of the use of laptops instead of other devices.

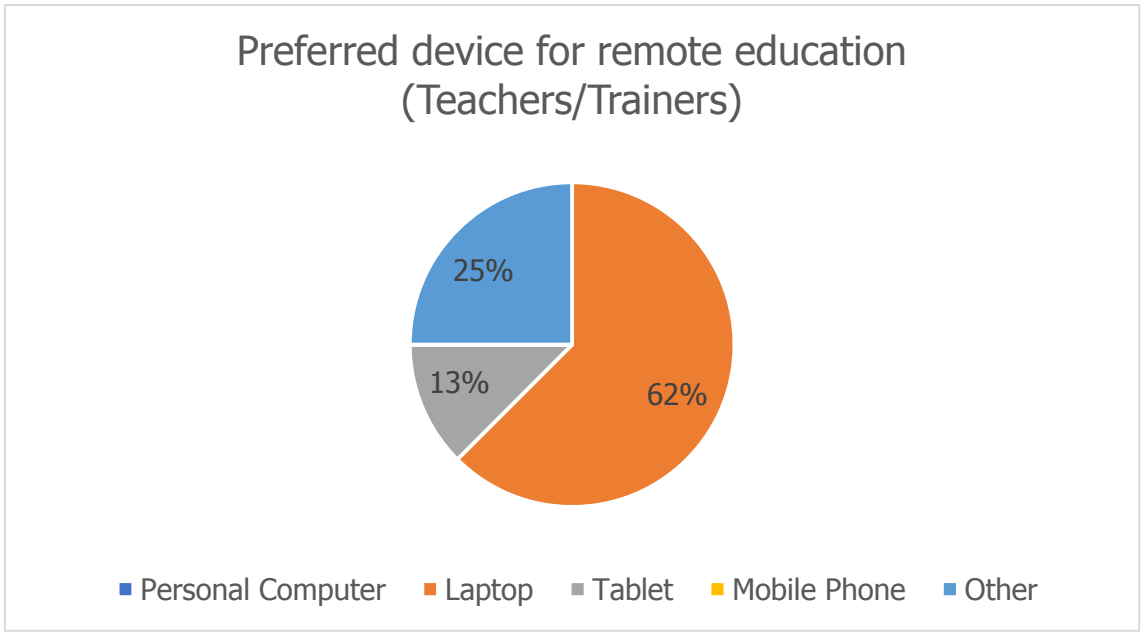

Figure 31: The device that the teachers/trainers prefer for remote education purposes

Half of teachers/trainers (50%) asked wanted to login to the platform by a method of registration (Figure 32), while only a small percentage of them wanted to use methods such as authentication (25%) or open links (12,5%). The registration method seems to be the best choice for them to login in the platform.

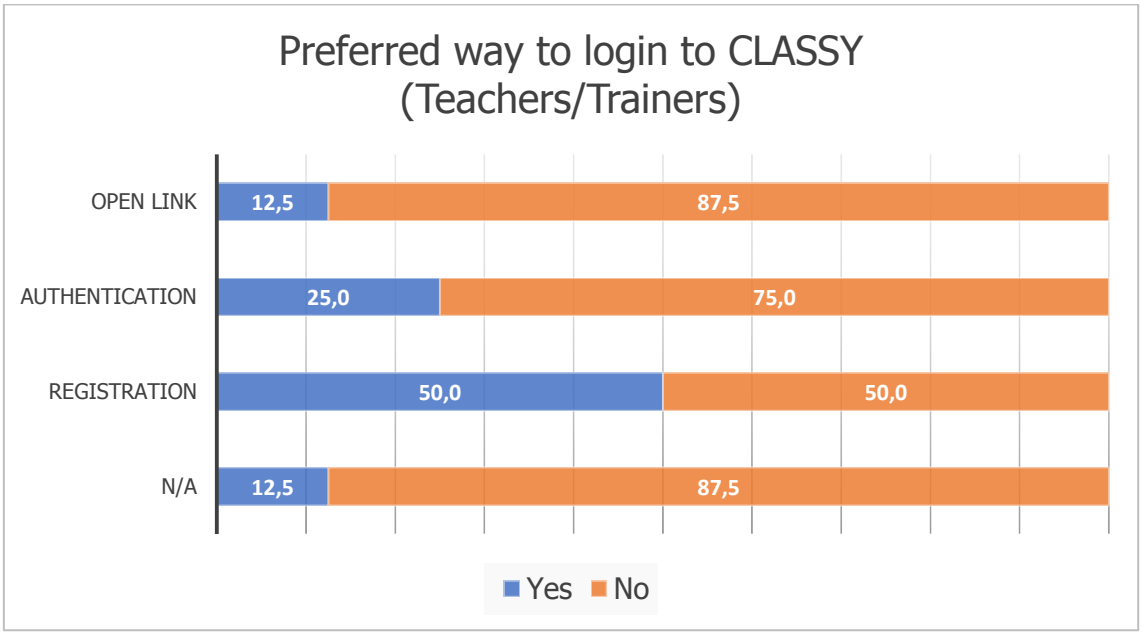

Figure 32: The method the teachers/trainees would like to login to the platform

A 87% of teachers/trainers, wanted the choice to be able to add their own level content in the platform (Figure 33) as it is presumed that they would like a platform that reflects the context that they would have if they shared their material in a real classroom. The same results were also found (87%) when the teachers/trainers were asked if they would like to see how each student/trainee would have performed in real-time (Figure 34).

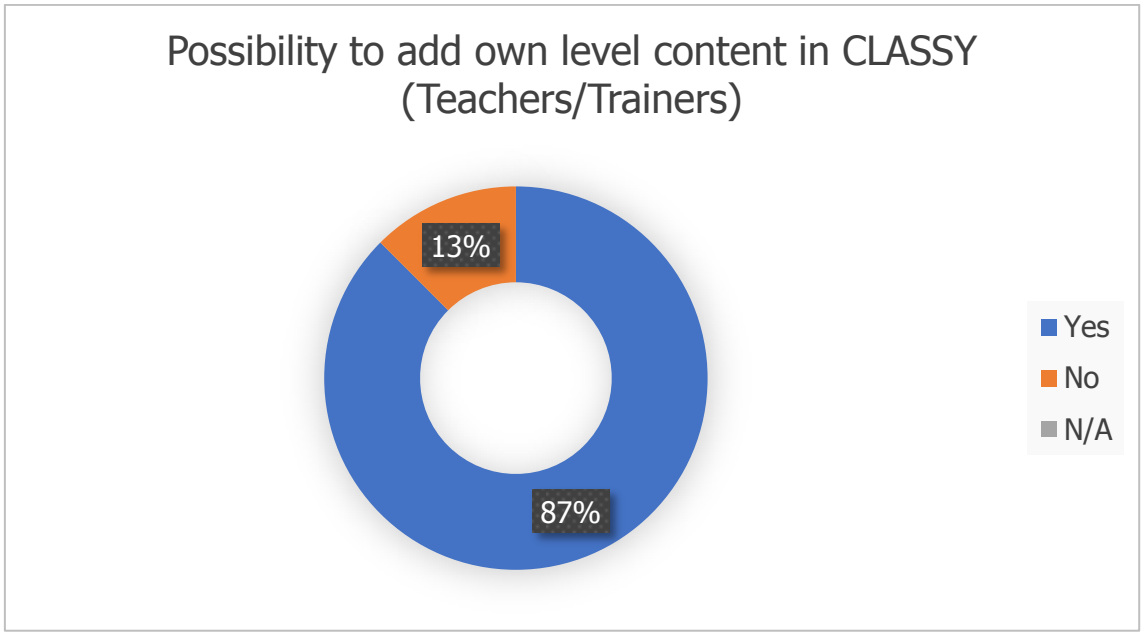

Figure 33: Possibility to add own level content in the platform

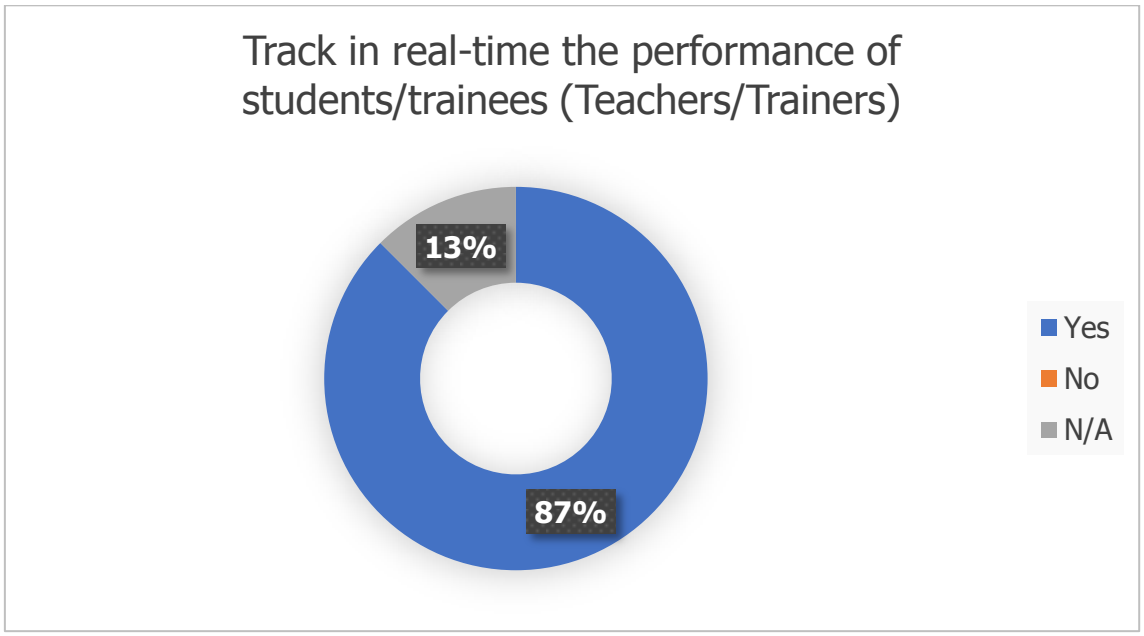

Figure 34: Possibility to know how each student/trainee is performing in real-time

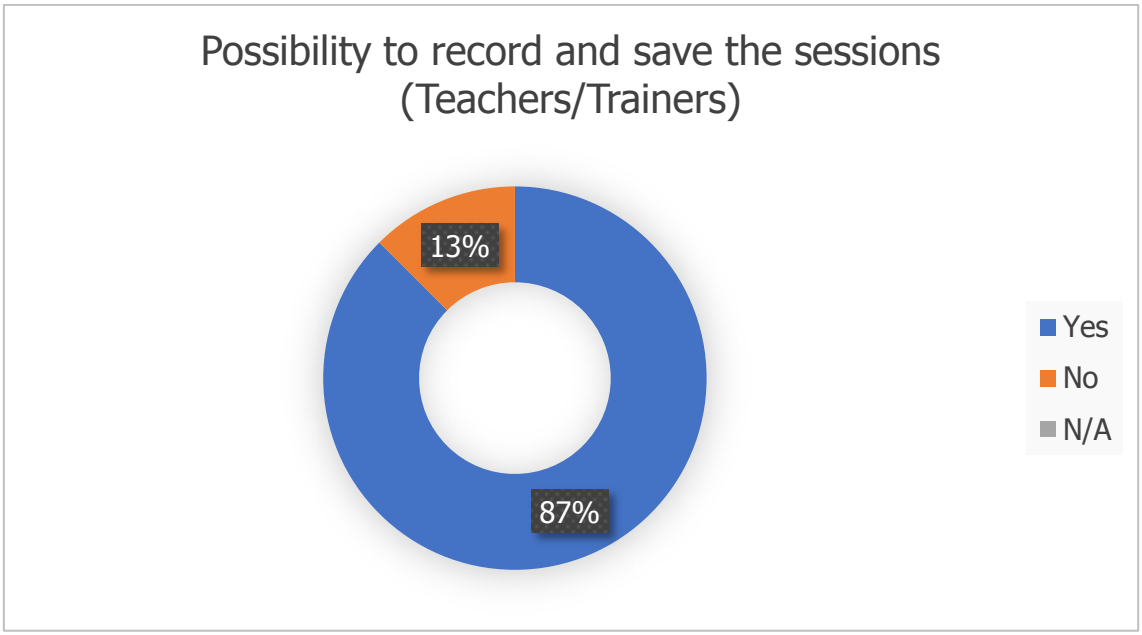

Figure 35: Possibility to record and save the sessions so as to access them later to see the performance of the students/trainees

The vast majority of teachers/trainers (87%) would like to record and save the sessions in order to access them later and evaluate the performance of the students/trainers (Figure 35). This can be a big advantage of a virtual classroom instead of a normal one, as the practice can help the collaboration and evaluation of teachers/trainers and student/trainees.

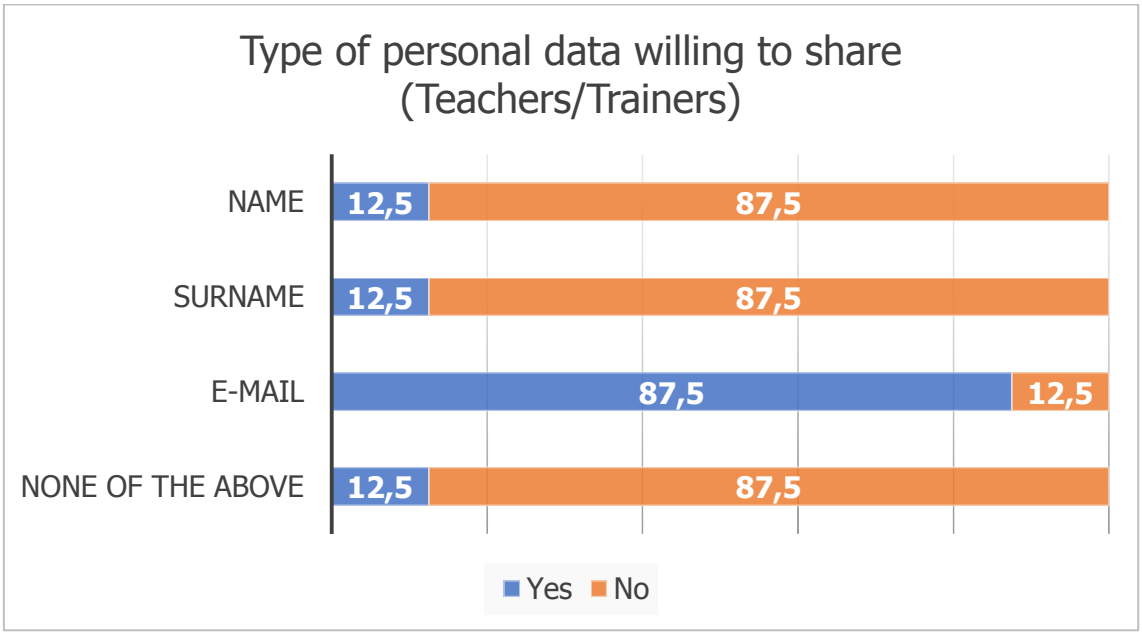

Figure 36: The kind of personal data the teachers/trainers are willing to share for joining the platform

A huge amount of the teachers/trainers asked (Figure 36), were willing to share their e-mail for joining the platform (87,5%), while only a small percentage would do that for name (12,5%) and surname (12,5%), so we can deduce that e-mail nowadays is the most important way of personal data information, while only a small amount (12,5%) was not willing to give any information.

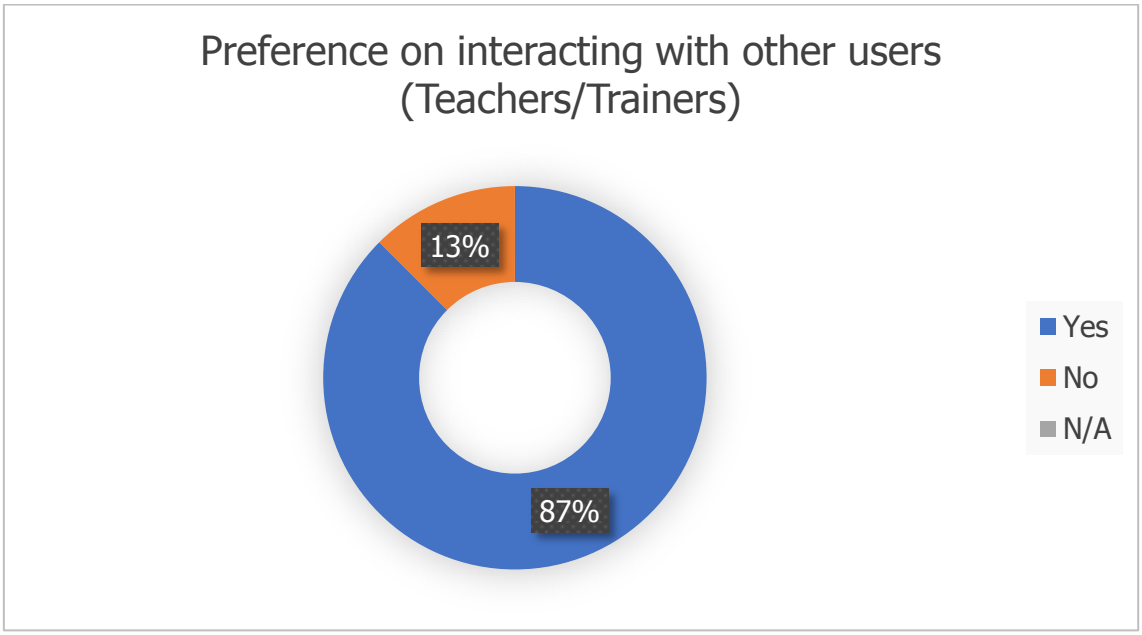

Figure 37: Preference on interacting with other users

A vast percentage of teachers/trainers (87%) would like to interact with the other users (Figure 37), which make sense as classroom are places of knowledge and interaction as much as their virtual counterparts, and the same percentage of teachers/trainers (87%), wanted to have access to the lecture/lesson afterwards (Figure 38), as it is presumed that would like their students, to have valuable information over the courses.

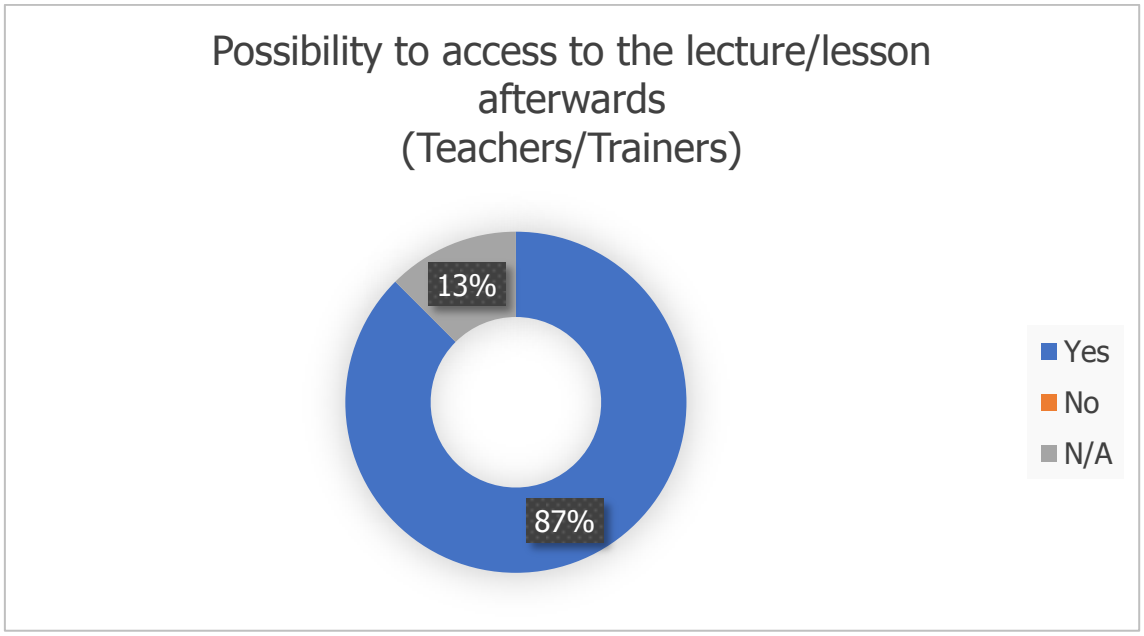

Figure 38: Possibility to access to the lecture/lesson afterwards

5.3.2 Students/trainees

The vast majority of the students/trainees (78%) were moderately familiar or extremely familiar with remote education, while only a small percentage (22%) were slightly familiar, somewhat familiar or not familiar at all, with remote education (Figure 39). This can be explained by the chronological period of the elaboration of the survey as the COVID-19 pandemic made mandatory remote education for students and provided them the need of not in-situ classes.

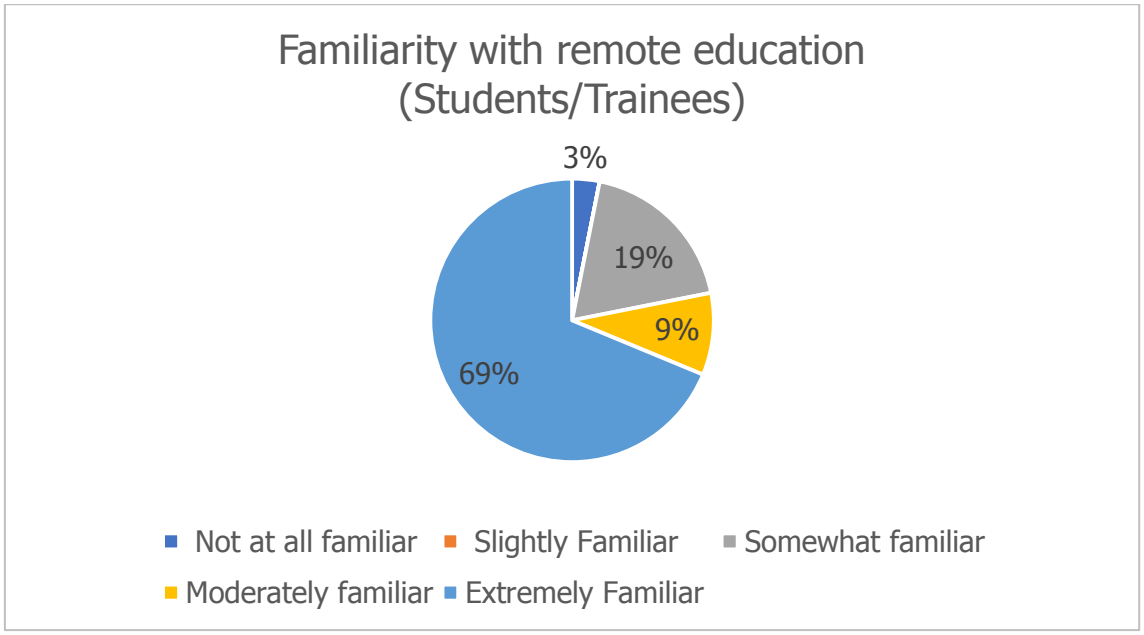

Figure 39: Familiarity of students/trainees with remote education

While these percentages took a deep decrease when the question asked to the teachers was about virtual reality instead of remote education (Figure 27) as three out of four of the subjects (75%) were slightly, somewhat or not familiar at all with virtual reality and a big amount of them (63%) had never used virtual reality software before (Figure 28), the percentages changed to the opposite direction when the same questions were asked to students/trainees, as more than half of them (63%) were extremely familiar or moderately familiar (Figure 40) and the vast majority of them (72%) had used a virtual reality software for educational purposes (Figure 41).

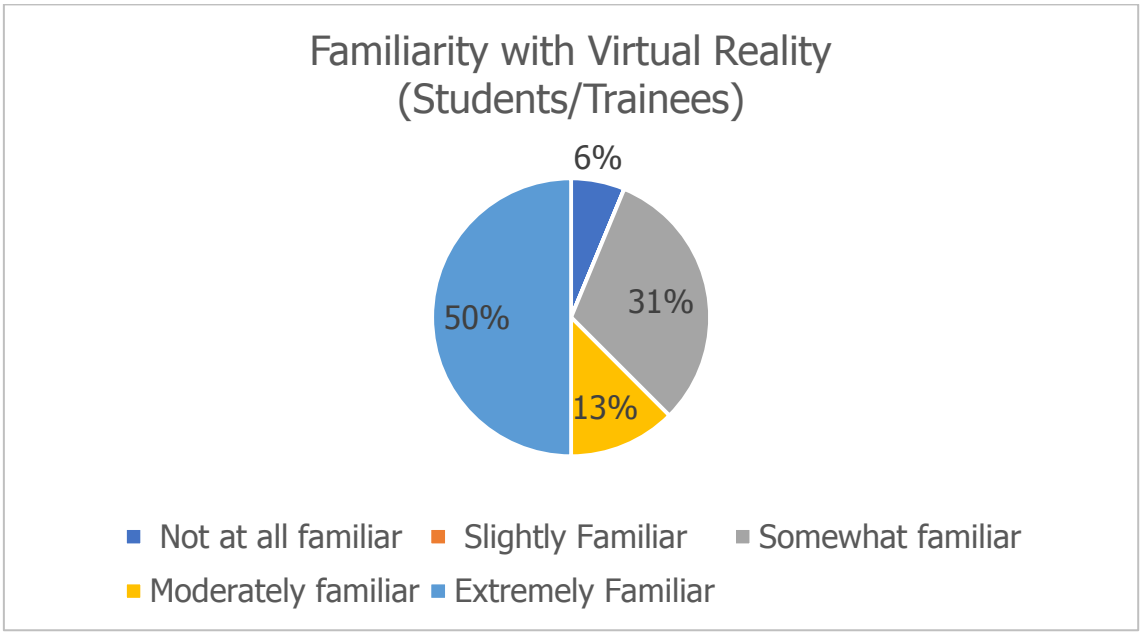

Figure 40: Familiarity of students/trainees with Virtual Reality

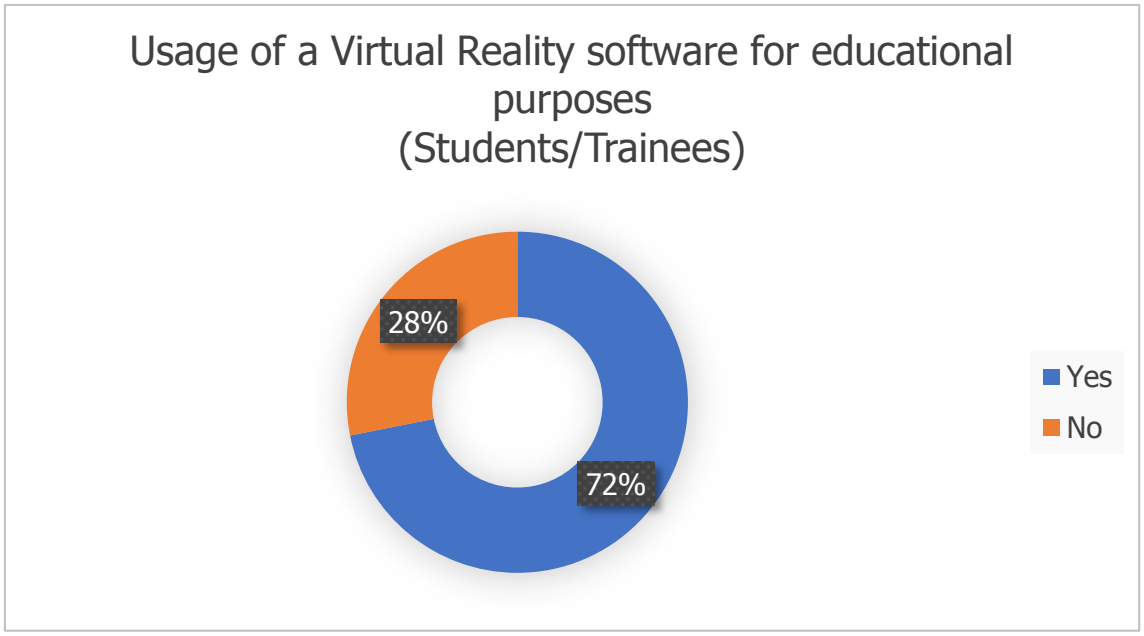

Figure 41: Usage of a Virtual Reality software for educational purposes by students/trainees

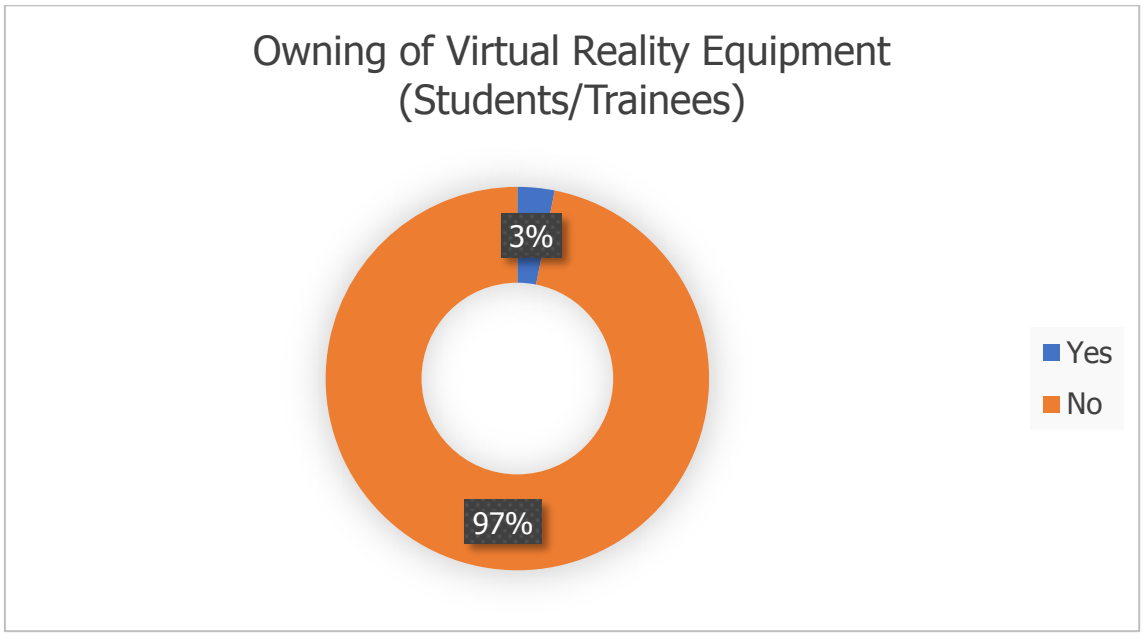

Figure 42: Owning of any Virtual Reality Equipment

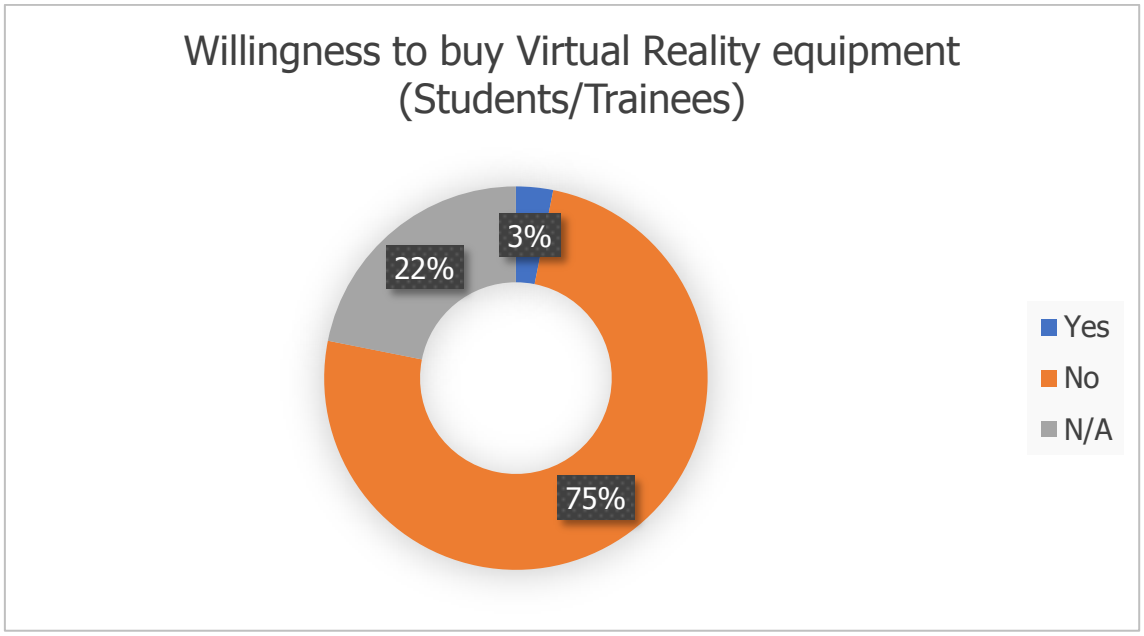

Figure 43: Willingness to buy Virtual Reality equipment in order to attend/hold a remote class

The overwhelming amount of students/trainees that were asked (97%), didn't have in their possession any virtual reality equipment (Figure 42) and the majority of them (75%) were not willing to buy the virtual reality equipment that was necessary for them to hold or attend a remote class (Figure 43). Many of the rest of them (22%) were unsure if they would buy the VR equipment necessary in order to attend their classes.

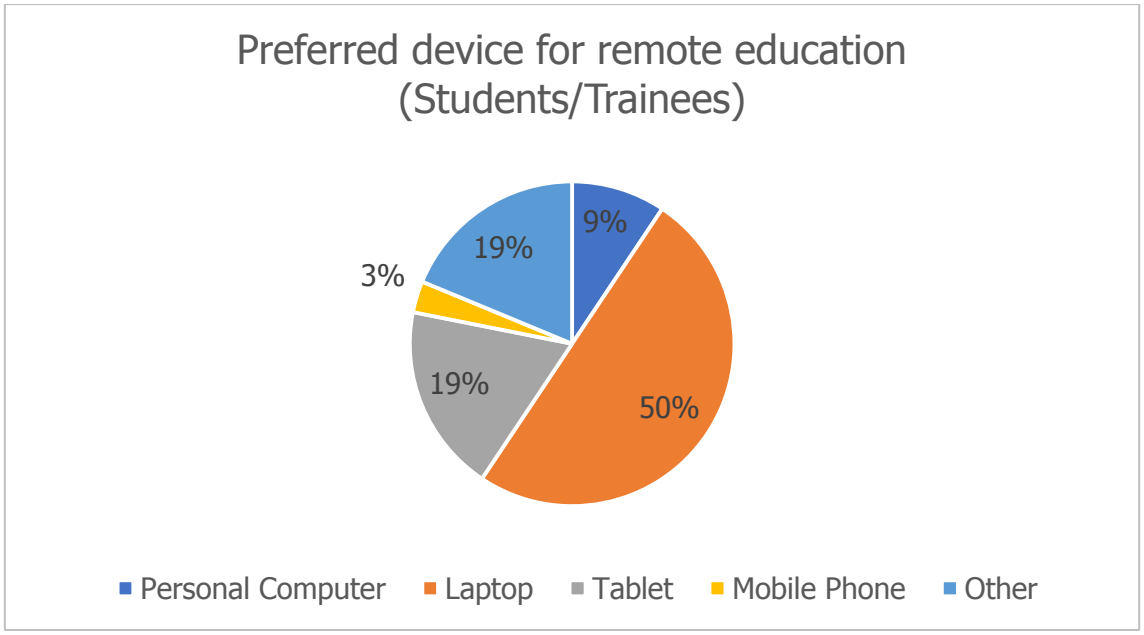

Figure 44: The device that the students/trainees prefer for remote education purposes

Half of the students/trainees asked used a laptop (50%) while a consistent amount of them used also a tablet (19%) or a personal computer (19%) for remote education (Figure 44). The difference between the use of tablets in the teachers/trainers and students/trainees categories is interesting as it shows how the majority of younger people are well acquainted with new technologies such as tablets.

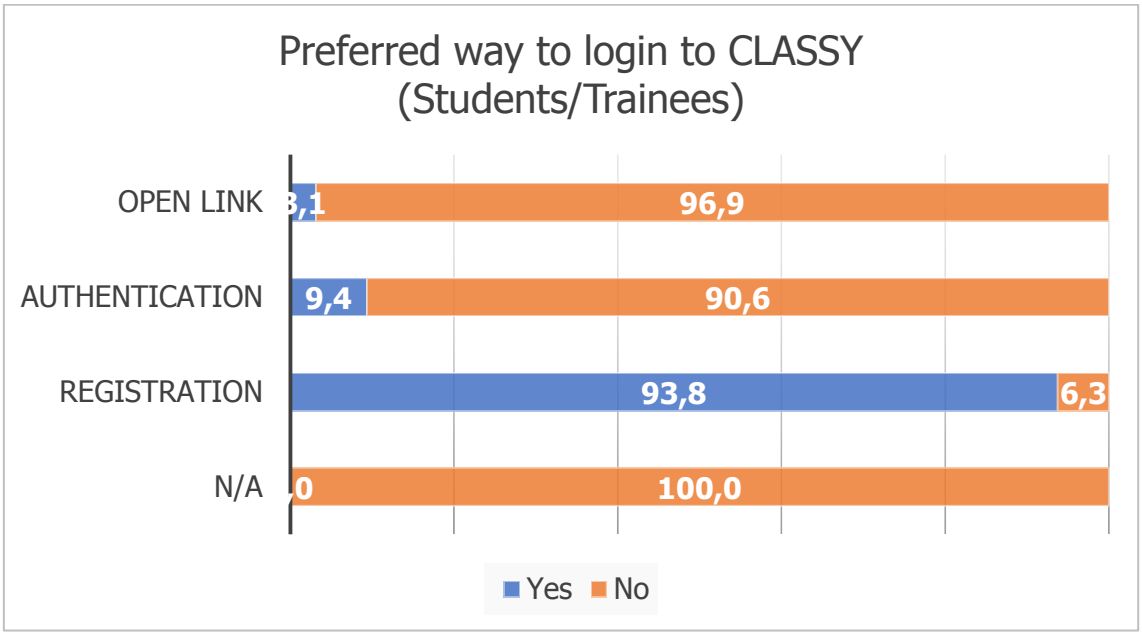

Figure 45: The method the teachers/trainees would like to login to the platform

An overwhelming amount of students/trainees (93,8%) asked, wanted to login to the platform by a method of registration (Figure 45), while only a very small percentage of them wanted to use methods such as authentication (9,4%) or open links (3,1%). The registration method seems to have much more importance towards students/trainees as only half of teachers/trainers (50%) asked wanted to login to the platform by a method of registration (Figure 32).

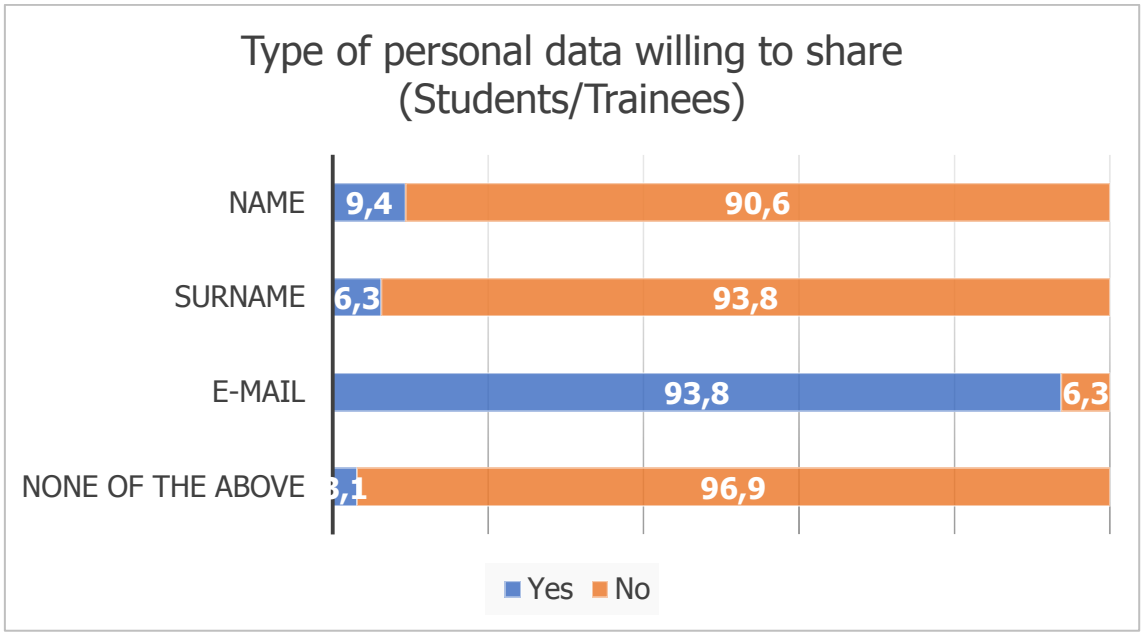

Figure 46: The kind of personal data the students/trainees are willing to share for joining the platform

A huge amount of the teachers/trainers asked (Figure 46), were willing to share their e-mail for joining the platform (93,8%), while only a small percentage would do that for name (9,4%) and surname (6,3%), so we can deduce that e-mail nowadays is the most important way of personal data information, while only a very small amount (3,1%) was not willing to give any information.

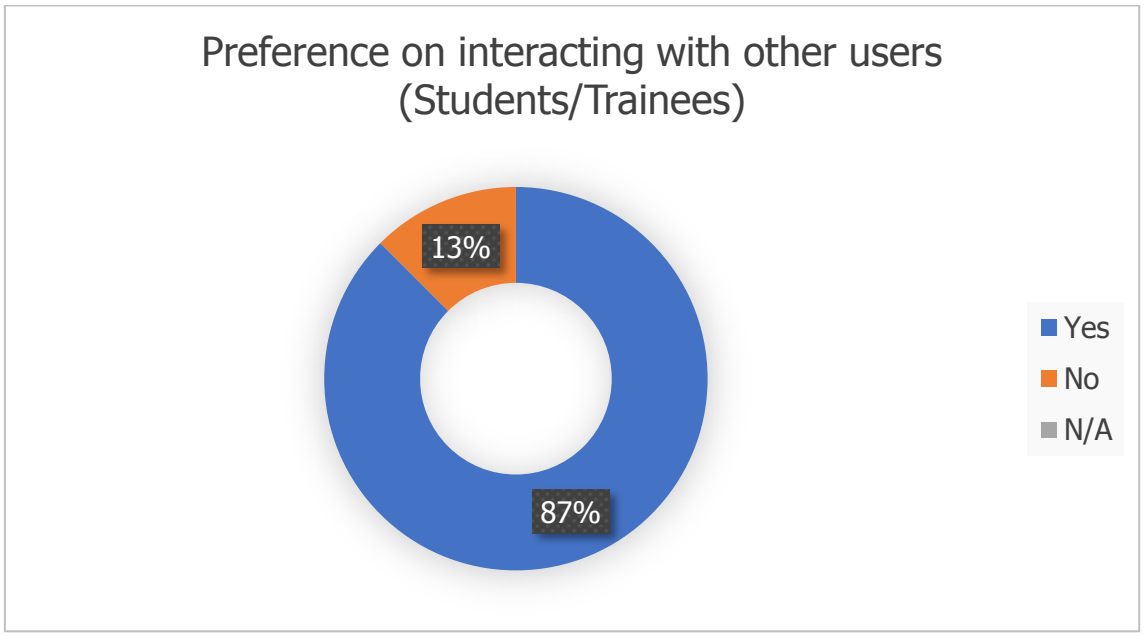

Figure 47: Preference of students/trainees on interacting with other users

A vast percentage of students/trainees (87%) would like to interact with the other users (Figure 47), which make sense as classroom are places of knowledge and interaction as much as their virtual counterparts, and the even bigger percentage of students/trainees (91%), wanted to have access to the lecture/lesson afterwards (Figure 48), as it is presumed that would like their teachers/trainers, to provide them with valuable information over the courses.

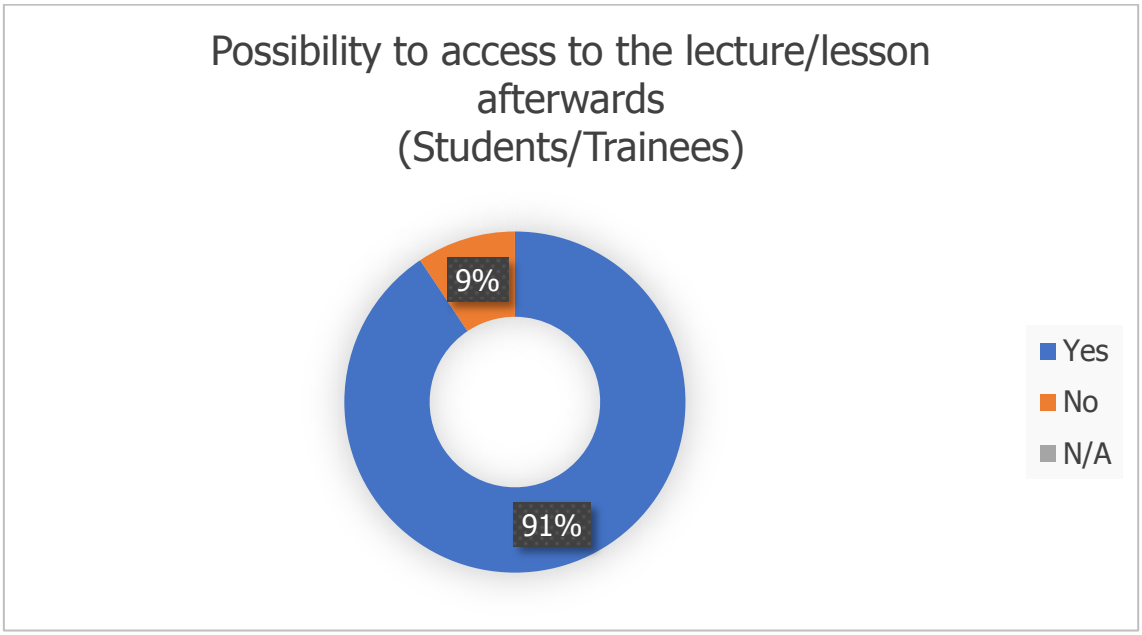

Figure 48: Preference of students/trainees on accessing the lecture/lesson afterwards

6. CONCLUSIONS

The current report presents the user scenarios and the user requirements of the CLASSY project.

In total eight (8) user scenarios were identified. The potential users of CLASSY platform cover different user categories with different characteristics (such as age, educational level, educational and training purpose etc.).

A questionnaire survey was carried out to identify the needs and preferences of the CLASSY targeted users as well as their current experience with VR applications. More than 900 responses were collected cumulatively from Greece and Ireland. The sample included both teachers/trainers and students/trainees.

The analysis of the results showed that most of both target groups feel familiar with remote education. The majority of both target groups in Greece and the teachers/trainers in Ireland do not use Virtual Reality for education purposes. Exception is observed in Irish students/trainees respondents who in their majority seems to use Virtual Reality for education purposes.

In both countries and target groups, the majority of the participants do not own any Virtual Reality equipment and they are unsured whether they are willing to buy in order to use it for educational purposes.

In terms of CLASSY features, the respondents appear to prefer to login to the platform via authentication or registration. In addition, they do want to being able to interact with other users and have access to the lecture/lesson afterwards.

In some cases, differences on preferences are observed between countries and type of users.

Overall, the analysis will feed in the design and development of CLASSY prototype.

7. REFERENCES

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ANNEX I: QUESTIONNAIRE IN ENGLISH & GREEK LANGUAGE

English Form of Classy – Remote Class System Questionnaire

Dear participant, welcome to our survey!

Classy is an EU Erasmus+ (GA No 2020-1-CY01-KA226-VET-082750) project which aims at promoting remote education using a 3D simulation of a classroom. Classy endeavors to develop a remote education platform that will address the needs both of the teachers/trainers and the students. Thus, we need your help to design a virtual classroom that will meet your requirements!

We invite you to participate in the following survey and provide us with feedback about your current experience with virtual reality applications and what do you expect from a virtual reality education software!

The survey lasts about 10 minutes. There are no right or wrong answers, this is only about your personal views. All data are anonymized, and your privacy is guaranteed.

Before participating in the survey please read carefully the information sheet that is available here:

Information Sheet

Thank you for helping us gather relevant information!

There are 18 questions in this survey.

I declare that I have read all the information, I know the objectives of this survey and I agree to participate. By participating in this survey I authorize the use of the data collected for the purposes of the research as described in the terms set out in the information sheet (You can find it here). *

Please choose **only one** of the following:

- o Yes
- o No

1. Are you a teacher/trainer or a student/trainee?

Please choose **only one** of the following:

- o Teacher/Trainer
- o Student/Trainee

2. Are you familiar with remote education? (1 = Not at all familiar; 2 = Slightly Familiar; 3 = Somewhat familiar; 4 = Moderately familiar; 5 = Extremely Familiar)

Please choose **only one** of the following:

- o 1
- o 2
- o 3
- o 4
- o 5

3. Are you familiar with Virtual Reality? (1 = Not at all familiar; 2 = Slightly Familiar; 3 = Somewhat familiar; 4 = Moderately familiar; 5 = Extremely Familiar)

Please choose **only one** of the following:

- o 1
- o 2
- o 3
- o 4
- o 5

4. Have you ever used a Virtual Reality software for educational purposes i.e.: to teach/train (for trainers) / to learn/take a class (for students)?

Please choose **only one** of the following:

- o Yes
- o No

If yes, could you please describe the features you liked and those that you did not liked?

Please write your answer here:

5. Do you have any Virtual Reality Equipment?

Please choose **only one** of the following:

- o Yes
- o No

If yes, please specify:

Please write your answer here:

If no, would you be willing buy the necessary Virtual Reality equipment in order to attend/hold a remote class?

Please choose **only one** of the following:

- o Yes
- o No

6. What is your preferred device for remote education purposes?

Please choose **only one** of the following:

- o Personal Computer
- o Laptop
- o Tablet
- o Mobile Phone
- o Other

The image below presents an example of how Classy platform would look like and how users will interact with each other.

7. How do you want to login to the platform?

Please choose **all** that apply:

- o Open link
- o Authentication
- o Registration
- o N/A

8. Do you want to have the possibility to add your own level content in the platform?

Please choose **only one** of the following:

- o Yes
- o No

9. Do you want to see how each student/trainee is performing in realtime?

Please choose **only one** of the following:

- o Yes
- o No

10. Do you want to record and save the sessions so as to access them later to see the performance of the students/trainees?

Please choose **only one** of the following:

- o Yes
- o No

11. What kind of personal data are you willing to share for joining the platform?

Please choose **all** that apply:

- o Name
- o Surname
- o E-mail
- o None of the above

12. Would you like to interact with the other users?

Please choose **only one** of the following:

- o Yes
- o No

13. Would you like to have access to the lecture/lesson afterwards?

Please choose **only one** of the following:

- o Yes
- o No

Thank you very much for your participation!

For more information visit the project website https://www.classy-project.eu/ or follow the project pages on social media:

LinkedIn

Facebook

Twitter

Submit your survey.
Thank you for completing this survey.

Greek Form of Classy – Remote Class System Questionnaire

Καλωσορίσατε στην έρευνα του Classy!

Το EU Erasmus+ "CLASSY - Remote Class System" (Αρ. Συμβ.: No 2020-1-CY01-KA226-VET-082750) αποσκοπεί στην προώθηση της εξ αποστάσεως εκπαίδευσης με τη χρήση τρισδιάστατης προσομοίωσης μιας τάξης.

Η παρούσα έρευνα ερωτηματολογίου υλοποιείται για να συλλέξει πληροφορίες σχετικά με τις απαιτήσεις και τις ανάγκες των τελικών χρηστών, δηλαδή των εκπαιδευτών και των εκπαιδευόμενων. Πιο συγκεκριμένα στόχος αυτής της έρευνας είναι η συλλογή πληροφοριών σχετικά με την τρέχουσα εμπειρία των χρηστών με εφαρμογές εικονικής πραγματικότητας και τις προσδοκίες τους από τη χρήση ενός λογισμικού εικονικής πραγματικότητας στις εκπαιδευτικές διαδικασίες.
Η έρευνα δεν διαρκεί περισσότερο από 10 λεπτά.
Η συμπλήρωση του ερωτηματολογίου είναι ανώνυμη.

Παρακαλούμε πριν επιλέξετε να συμμετέχετε στην έρευνα διαβάστε προσεκτικά το έντυπο ενημέρωσης που είναι διαθέσιμο ακολουθώντας τον παρακάτω σύνδεσμο:

Έντυπο Ενημέρωσης

There are 18 questions in this survey.

Δηλώνω ότι έχω διαβάσει όλες τις πληροφορίες, γνωρίζω τους στόχους αυτής της έρευνας και συμφωνώ να συμμετάσχω. Συμμετέχοντας σε αυτήν την έρευνα εξουσιοδοτώ τη χρήση των δεδομένων που συλλέγονται για τους σκοπούς της έρευνας, όπως περιγράφεται στους όρους που καθορίζονται στο δελτίο ενημέρωσης (μπορείτε να το βρείτε εδώ). *

Παρακαλώ επιλέξτε **μόνο ένα** από τα παρακάτω:

- o Ναι
- o Όχι

1. Είστε καθηγητής-τρια/εκπαιδευτής-τρια ή σπουδαστής-τρια/εκπαιδευόμενος-η; *
Επιλέξτε μια από τις παρακάτω απαντήσεις

- o Καθηγητής-τρια/Εκπαιδευτής-τρια
- o Σπουδαστής-τρια/Εκπαιδευόμενος-η

2. Αισθάνεστε εξοικειωμένος-η με την εξ αποστάσεως εκπαίδευση; (1 = Καθόλου εξοικειωμένος-η, 2 = Λίγο εξοικειωμένος-η, 3 = Κάπως εξοικειωμένος-η 4 = Καλά εξοικειωμένος-η 5 = Εξαιρετικά εξοικειωμένος-η)
Παρακαλώ επιλέξτε **μόνο ένα** από τα παρακάτω:

- o 1
- o 2
- o 3
- o 4
- o 5

3. Αισθάνεστε εξοικειωμένος-η με την Εικονική Πραγματικότητα; (1 = Καθόλου εξοικειωμένος-η, 2 = Λίγο εξοικειωμένος-η, 3 = Κάπως εξοικειωμένος-η 4 = Καλά εξοικειωμένος-η 5 = Εξαιρετικά εξοικειωμένος-η)
Παρακαλώ επιλέξτε **μόνο ένα** από τα παρακάτω:

- o 1
- o 2
- o 3
- o 4
- o 5

4. Έχετε χρησιμοποιήσει ποτέ ένα λογισμικό Εικονικής Πραγματικότητας για εκπαιδευτικούς σκοπούς, όπως π.χ.: για να διδάξετε/εκπαιδεύσετε (για εκπαιδευτές) /να μάθετε/παρακολουθήσετε μια τάξη (για σπουδαστές);
Παρακαλώ επιλέξτε **μόνο ένα** από τα παρακάτω:

- o Ναι
- o Όχι

Εάν ναι, μπορείτε να περιγράψετε τα χαρακτηριστικά που σας άρεσαν και αυτά που δεν σας άρεσαν;
Παρακαλώ γράψτε την απάντησή σας εδώ:

5. Διαθέτετε κάποιο εξοπλισμό Εικονικής Πραγματικότητας;
Παρακαλώ επιλέξτε **μόνο ένα** από τα παρακάτω:

- o Ναι
- o Όχι

Εάν ναι, παρακαλώ προσδιορίστε:
Παρακαλώ γράψτε την απάντησή σας εδώ:

Εάν όχι, θα ήσασταν πρόθυμοι να αγοράσετε τον απαραίτητο εξοπλισμό Εικονικής Πραγματικότητας για να παρακολουθήσετε/πραγματοποιήσετε εξ αποστάσεως εκπαίδευση;
Παρακαλώ επιλέξτε **μόνο ένα** από τα παρακάτω:

- o Ναι
- o Όχι

6. Ποια συσκευή από τις παρακάτω προτιμάτε να χρησιμοποιείτε για σκοπούς εξ αποστάσεως εκπαίδευσης;
Παρακαλώ επιλέξτε **μόνο ένα** από τα παρακάτω:

- o Προσωπικός Υπολογιστής
- o Φορητός Υπολογιστής
- o Τάμπλετ
- o Κινητό Τηλέφωνο
- o Άλλο […]

Η παρακάτω εικόνα αποτελεί ενδεικτικό παράδειγμα λειτουρίας της εφαρμογής Classy καθώς και πως οι χρήστες θα αλληλεπιδρούν μεταξύ τους.

7. Πως επιθυμείτε να συνδέεστε στην πλατφόρμα Classy;
Επιλέξτε καθετί που εφαρμόζει

Παρακαλώ επιλέξτε **όλα** όσα ισχύουν:

- o Σύνδεσμος ανοιχτός για όλους
- o Σύνδεση μέσω ταυτοποίησης χρήστη
- o Σύνδεση μέσω εγγραφής
- o Δεν ξέρω/δεν απαντώ

8. Θέλετε να έχετε τη δυνατότητα να προσθέσετε δική σας θεματική ενότητα/υλικό στην πλατφόρμα;
Παρακαλώ επιλέξτε **μόνο ένα** από τα παρακάτω:

- o Ναι
- o Όχι

9. Θέλετε να δείτε πώς αποδίδει κάθε μαθητής/εκπαιδευόμενος σε πραγματικό χρόνο;
Παρακαλώ επιλέξτε **μόνο ένα** από τα παρακάτω:

- o Ναι
- o Όχι

10. Θέλετε να ηχογραφήσετε και να αποθηκεύσετε τις συνεδρίες ώστε να έχετε πρόσβαση σε αυτές αργότερα για να δείτε την απόδοση των μαθητών/εκπαιδευομένων;
Παρακαλώ επιλέξτε **μόνο ένα** από τα παρακάτω:

- o Ναι
- o Όχι

11. Τι είδους προσωπικά δεδομένα είστε διατεθειμένοι να μοιραστείτε για να χρησιμοποιήσετε στην πλατφόρμα;
Επιλέξτε καθετί που εφαρμόζει

Παρακαλώ επιλέξτε **όλα** όσα ισχύουν:

- o Όνομα
- o Επίθετο
- o Διεύθυνση ηλεκτρονικού ταχυδρομείου
- o Κανένα από τα παραπάνω

12. Θα θέλατε να αλληλεπιδράτε με τους άλλους χρήστες;
Παρακαλώ επιλέξτε **μόνο ένα** από τα παρακάτω:

- o Ναι
- o Όχι

13. Θα θέλατε να έχετε πρόσβαση στη διάλεξη/μάθημα μετά;
Παρακαλώ επιλέξτε **μόνο ένα** από τα παρακάτω:

- o Ναι
- o Όχι

Ευχαριστούμε για τη συμμετοχή σας!

Για περισσότερες πληροφορίες επισκεφθείτε την ιστοσελίδα του έργου https://www.classy-project.eu/ ή ακολουθείστε τις σελίδες του έργου στα μέσα κοινωνικής δικτύωσης:

LinkedIn

Facebook

Twitter

Υποβολή της έρευνάς σας
Ευχαριστούμε που συμπληρώσατε αυτή την έρευνα.

ANNEX II: INFORMATION SHEET IN ENGLISH & GREEK LANGUAGE

English Form of Classy – Remote Class System Information Sheet

INFORMATION SHEET

Project title: "CLASSY - Remote Class System" (GA No 2020-1-CY01-KA226-VET-082750)

Project Coordinator: GEOIMAGING LIMITED

Funding Organisation: European Commission Erasmus+ programme

Data Controller: Aristotle University of Thessaloniki **(AUTh)**

Names of the coordinators of the research from AUTh side:

Efstratios Stylianidis

Email: sstyl@auth.gr

TeL: 2310-995973

Address: Aristotle University of Thessaloniki

Faculty of Engineering

School of Spatial Planning and Development

Laboratory of Geoinformatics

University Campus

54124 Thessaloniki

Greece

Data Protection Officer (DPO): data.ptotection@auth.gr

Important Information

You will be given information on the research to be conducted within CLASSY and you will be invited to take part in the study. Your participation is voluntary.

Classy is an EU Erasmus+ project which aims at promoting remote education using a 3D simulation of a classroom. Classy endeavors to develop a remote education platform that will address the needs both of the teachers/trainers and the students targeting to bring 3D guided lessons into education. In the framework of the project, a questionnaire survey will be implemented to identify the user requirements for the platform to be developed.

You can talk about this study and the consent form with other people such as family/friends/or whoever you feel comfortable with. You do not have to decide right away. You can decide whether you want to take part in the study after you have thought/ discussed this.

There may be words you do not understand or some things you would like for me to explain to you in detail. You can stop anytime and ask questions.

Why are we conducting this study?

The EU Erasmus+ "CLASSY: Remote Class System" (GA No 2020-1-CY01-KA226-VET-082750) aims at promoting remote education using a 3D simulation of a classroom.

The current study is being performed to map the user requirements of the end users i.e. trainers and trainees. This focuses on identifying and meeting the obvious and/or hidden user needs and can lead to better customised services, with increased chances of being effectively adopted in practice. The objective of this survey is to collect insights on about your current experience with virtual reality applications and what do you expect from a virtual reality education software.

The information collected during the survey that will be implemented will be used to develop a product prototype customized to end users' needs in line with their preferences, avoiding unnecessary design and increasing its acceptance.

Why are we requesting your participation?

You have been invited to take part in this survey because you are a trainer or a trainee. Your participation in this survey will help the consortium understand how a virtual reality education software can be designed and developed in order to successfully meet the needs of its users.

Do I have to do this?

You do not have to take part in the study if you don't want to. Even if you say "yes" now, you can change your mind later and pull out of the study at any time.

What will this cost me?

Your participation in the survey does not involve any cost.

What will happen if you take part in the study?

If you accept the invitation, you will be asked to fill in a 10 minute questionnaire about your current experience with virtual reality applications and what do you expect from a virtual reality education software. A mockup of the CLASSY platform will be also presented to you. You may choose to not answer to any question that you do not feel comfortable with.

What kind of data will be collected?

The questionnaire collects information through electronic submission in a properly formatted form using the "limesurvey" software. Apart from your views on virtual reality platforms we will collect some personal data namely:

- Whether you are a trainer or a trainee

Is this bad or dangerous for me?

There are no risks involved in this study.

Will this be beneficial for me?

By participating in this survey, you will be contributing towards the development of a virtual reality education software which will meet your needs and you may benefit by using either as a trainer or trainee.

Will you inform me on the conclusions?

When the research is finished, the results will feed in the development of the CLASSY prototype. If you wish you may be invited to the following project activities where you may test the project prototype and check if this meets your needs and expectations as well as suggest improvements.

Can I choose not to be part of this study? Can I change my mind?

Your participation is not forced. You can stop the research at any time if you wish.

During the survey, if you change your mind, you may not submit your answers. In this case your answers will not be saved.

Consent is provided for 24 months.

Data managing

After submitting your answers, for the purposes of the research, the verification of your identity is not required by those responsible for the processing of your personal data. As a result, the latter are not obliged to obtain, or retain or process additional information to verify your identity. Consequently, you may not exercise the following rights: a) the right of access to your personal data, b) the right of correction, c) the right of deletion, d) the right of restriction of processing, and e) the right of data portability in accordance with the General Data Protection Regulation.

If you have any questions about your rights you may contact the Scientific Coordinator by sending an email to sstyl@auth.gr or phone at 2310-995973.

If you finally decide that you would like to take part in the study, you may save a copy of this document.

Greek Form of Classy – Remote Class System Information Sheet

ARISTOTLE UNIVERSITY OF THESSALONIKI

ΕΝΗΜΕΡΩΣΗ ΕΝΔΙΑΦΕΡΟΜΕΝΟΥ

Τίτλος Μελέτης: "CLASSY - Remote Class System" (GA No 2020-1-CY01-KA226-VET-082750).

Επιστημονικά Υπεύθυνος: GEOIMAGING LIMITED

Οργανισμός Χρηματοδότησης: Πρόγραμμα Erasmus+ της Ευρωπαϊκής Επιτροπής

Υπεύθυνος Επεξεργασίας Δεδομένων: Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης **(ΑΠΘ)**

Ονόματα των συντονιστών της έρευνας από την πλευρά του ΑΠΘ:

Ευστράτιος Στυλιανίδης

Ηλεκτρονικό ταχυδρομείο: sstyl@auth.gr

Τηλέφωνο: 2310-995973

Διεύθυνση: Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης

Πολυτεχνική Σχολή

Τμήμα Μηχανικών Χωροταξίας και Ανάπτυξης

Εργαστήριο Γεωπληροφορικής

Πανεπιστημιούπολη

54124 Θεσσαλονίκη

Ελλάδα

Υπεύθυνος Προστασίας Δεδομένων (ΥΠΔ): data.protection@auth.gr

Σημαντικές πληροφορίες

Σας δίνουμε μερικές πληροφορίες σχετικά με τη μελέτη που διεξάγουμε στα πλαίσια του Ευρωπαϊκού Έργου "CLASSY - Remote Class System" το οποίο χρηματοδοτείται από Πρόγραμμα Erasmus+ της Ευρωπαϊκής Επιτροπής (Αρ. Συμβ.: 2020-1-CY01-KA226-VET-082750) και θα σας προσκαλέσουμε να λάβετε μέρος. Η συμμετοχή σας είναι εθελοντική.

Το Classy στοχεύει στην προώθηση της εξ αποστάσεως εκπαίδευσης μέσω της τρισδιάστατης προσομοίωσης μιας τάξης. Στο πλαίσιο αυτό το Classy πρόκειται να αναπτύξει μια πλατφόρμα εξ αποστάσεως εκπαίδευσης που θα καλύπτει τις ανάγκες τόσο των δασκάλων/εκπαιδευτών όσο και των μαθητών που είναι πρόθυμοι να ενσωματώσουν την εικονική πραγματικότητα στην εκπαίδευση.

Μπορείτε να συζητήσετε τις πληροφορίες αυτού του εντύπου με κάποιον από την οικογένεια σας, με φίλους ή με όποια/ον νιώθετε άνετα. Δεν χρειάζεται να αποφασίσετε άμεσα. Μπορείτε να αποφασίσετε αν επιθυμείτε να συμμετάσχετε αφού το σκεφτείτε/συζητήσετε.

Σας παρακαλούμε να το μελετήσετε προσεκτικά και να μη διστάσετε να επικοινωνήσετε με τους παραπάνω υπεύθυνους μελέτης για περισσότερες πληροφορίες ή διευκρινήσεις αν το επιθυμείτε. Μπορείτε ακόμη να μας ρωτήσετε οποιαδήποτε στιγμή συναντηθούμε από κοντά για οποιοδήποτε λόγο.

Γιατί διεξάγουμε αυτή τη μελέτη;

Το EU Erasmus+ "CLASSY - Remote Class System" (Αρ. Συμβ.: No 2020-1-CY01-KA226-VET-082750) αποσκοπεί στην προώθηση της εξ αποστάσεως εκπαίδευσης με τη χρήση τρισδιάστατης προσομοίωσης μιας τάξης.

Η παρούσα έρευνα ερωτηματολογίου υλοποιείται για να συλλέξει πληροφορίες σχετικά με τις απαιτήσεις και τις ανάγκες των τελικών χρηστών, δηλαδή των εκπαιδευτών και των εκπαιδευόμενων. Πιο συγκεκριμένα στόχος αυτής της έρευνας είναι η συλλογή πληροφοριών σχετικά με την τρέχουσα εμπειρία των χρηστών με εφαρμογές εικονικής πραγματικότητας και τις προσδοκίες τους από τη χρήση ενός λογισμικού εικονικής πραγματικότητας στις εκπαιδευτικές διαδικασίες. Η συλλογή αυτής της πληροφορίας

μπορεί να οδηγήσει στον σχεδιασμό υπηρεσιών κατάλληλα προσαρμοσμένων στις ανάγκες των τελικών χρηστών σύμφωνα με τις προτιμήσεις τους, αποφεύγοντας τον περιττό σχεδιασμό και αυξάνοντας την αποδοχή του.

Γιατί ζητάμε τη συμμετοχή σας;

Το ερωτηματολόγιο απευθύνετε σε εκπαιδευτές και εκπαιδευόμενους.

Η συμμετοχή σας σε αυτήν την έρευνα θα βοηθήσει τα μέλη της κοινοπραξίας να σχεδιάσουν και αναπτύξουν ένα λογισμικό εικονικής πραγματικότητας για να χρησιμοποιηθεί στις εκπαιδευτικές διαδικασίας που θα ανταποκρίνεται πλήρως στις απαιτήσεις των χρηστών του.

Πρέπει να το κάνω αυτό;

Δεν χρειάζεται να συμμετέχετε στη μελέτη εάν δεν το θέλετε. Ακόμα και αν πείτε «ναι» τώρα, μπορείτε να αλλάξετε γνώμη κατά την διάρκεια του ερωτηματολογίου και οι απαντήσεις σας δεν θα αποθηκευτούν.

Πόσο θα μου κοστίσει αυτό;

Η συμμετοχή σας στη μελέτη είναι εθελοντική και δεν θα επιβαρυνθείτε με κανένα κόστος.

Τι θα συμβεί αν λάβετε μέρος στη μελέτη;

Εάν αποδεχτείτε την πρόσκληση, θα σας ζητηθεί να συμπληρώσετε ένα ερωτηματολόγιο 10 λεπτών σχετικά με την τρέχουσα εμπειρία σας με εφαρμογές εικονικής πραγματικότητας και τις προσδοκίες σας από ένα λογισμικό εικονικής πραγματικότητας για χρήση σε εκπαιδευτικές διαδικασίες.

Τι είδους δεδομένα θα συλλέγονται;

Το ερωτηματολόγιο συλλέγει πληροφορίες μέσω ηλεκτρονικής υποβολής σε κατάλληλα διαμορφωμένη μορφή χρησιμοποιώντας το λογισμικό "limesurvey". Εκτός από τις απόψεις σας σχετικά με τις πλατφόρμες εικονικής πραγματικότητας, θα συλλέξουμε ορισμένα δεδομένα και συγκεκριμένα:

- Αν είστε εκπαιδευτής ή εκπαιδευόμενος

Είναι κακό ή επικίνδυνο για μένα;

Δεν υπάρχουν κίνδυνοι από τη συμμετοχή σας στην παρούσα έρευνα.

Θα είναι ωφέλιμο για μένα;

Συμμετέχοντας σε αυτή την έρευνα, θα συμβάλετε στην ανάπτυξη ενός λογισμικού εικονικής πραγματικότητας που θα καλύπτει τις ανάγκες σας και μπορείτε να επωφεληθείτε χρησιμοποιώντας το είτε ως εκπαιδευτής είτε ως εκπαιδευόμενος.

Θα με ενημερώσετε για τα συμπεράσματα;

Όταν ολοκληρωθεί η έρευνα, τα αποτελέσματα θα τροφοδοτήσουν την ανάπτυξη της πρώτης έκδοσης του λογισμικού Classy. Εάν επιθυμείτε, μπορείτε να προσκληθείτε στις ακόλουθες δραστηριότητες του έργου όπου μπορείτε να δοκιμάσετε την πρώτη έκδοση του λογισμικού και να ελέγξετε αν αυτό ανταποκρίνεται στις ανάγκες και τις προσδοκίες σας, καθώς και να προτείνετε βελτιώσεις.

Μπορώ να επιλέξω να μην είμαι μέρος αυτής της μελέτης; Μπορώ να αλλάξω γνώμη;

Η συμμετοχή σας δεν επιβάλλεται. Μπορείτε να επιλέξετε να μη συμμετέχετε στη μελέτη.

Στη διάρκεια συμπλήρωσης του ερωτηματολογίου εφόσον αλλάξετε γνώμη μπορείτε να μην υποβάλλετε τις απαντήσεις σας. Σε αυτή την περίπτωση δεν θα αποθηκευτούν οι απαντήσεις σας.

Η συγκατάθεση παρέχεται για 24μήνες.

Διαχείριση δεδομένων

Μετά την υποβολή των απαντήσεών σας, για τους σκοπούς της έρευνας, η επαλήθευση της ταυτότητάς σας δεν απαιτείται από τους υπεύθυνους για την επεξεργασία των προσωπικών σας δεδομένων. Ως αποτέλεσμα, οι τελευταίοι δεν είναι υποχρεωμένοι να αποκτήσουν, να διατηρήσουν ή να επεξεργαστούν πρόσθετες πληροφορίες για να επαληθεύσουν την ταυτότητά σας. Κατά συνέπεια, δεν μπορείτε να ασκήσετε τα ακόλουθα δικαιώματα: α) το δικαίωμα πρόσβασης στα προσωπικά σας δεδομένα, β) το δικαίωμα διόρθωσης, γ) το δικαίωμα διαγραφής, δ) το δικαίωμα περιορισμού της επεξεργασίας και ε) το δικαίωμα φορητότητας των δεδομένων σύμφωνα με τον Γενικό Κανονισμό Προστασίας Δεδομένων.

Για οποιαδήποτε απορία ή καθοδήγηση σχετικά με τα δικαιώματά σας μπορείτε να επικοινωνήσετε με τον Επιστημονικό Συντονιστή στέλνοντας ένα μήνυμα ηλεκτρονικού ταχυδρομείου στο sstyl@auth.gr ή τηλεφωνήστε στο 2310-995973.

Εάν τελικά αποφασίσετε να λάβετε μέρος σε αυτήν την έρευνα μπορείτε να κρατήσετε ένα αντίγραφο του παρόντος εντύπου.