



Erasmus+

**D3.2**

**Design of a pilot procedure and evaluation methodology**

**2020-1-CY01-KA226-VET-082750**

**Remote Class System**



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<b>Abstract</b>	This deliverable describes the methodology for the evaluation of each scenario, from mock-up phase to final prototype, by teachers, educators and trainers with significant experience in education. The purpose of this deliverable is to define the evaluation plan and the design of the mock-up test which derives from Task 1.2 'Scenarios and User Requirements' of the proposal, in order to ensure (a) the testing in both end-user countries is consistent and (b) to minimise the risk of end-users' frustration and negative experience when interacting with Classy.



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## **1. INTRODUCTION**

CLASSY project's main objective is to bring immersive 3D guided lessons into education using an accessible browser agnostic approach. 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). More specifically, CLASSY project aims to offer the following services in a user-friendly environment for teachers, students, and education professionals:

- 1)** Development of a platform that offers a novel, technically advanced and appealing e-learning method that is accessible to students and teachers both remotely and in class.
- 2)** Offers immersive educational experiences by interacting with a variety of virtual reality (VR) and learning resources.
- 3)** A system that allows teachers and students to create and launch unique learning resources in a convenient way.

The purpose of this deliverable is to define the evaluation plan and the design of the mock-up test which derives from Task 1.2 'Scenarios and User Requirements' of the proposal, in order to ensure (a) the testing in both end-user countries is consistent and (b) to minimise the risk of end-users' frustration and negative experience when interacting with Classy. The minimisation of negative experience of students and teachers will be achieved through the prior testing of each iterative by professionals with teaching experience.

## **2. PREVIOUS WORK**

This section will present a summary of the main findings and conclusions of the user requirement phase, which can be found in detail in D1.2 'Scenarios and User Requirements'. The deliverable was prepared under Task 2 'Scenarios and user studies' and Task 3 'User requirements and stakeholder participation in the value chain'. The outcomes of the report were dual. Work was carried out under a report aimed at

defining the projects target groups, scenarios, and personas. While the user requirements for CLASSY were identified following a questionnaire survey approach.

## **2.1 Summary of CLASSY project's user requirements**

### **User Scenarios and Use Cases**

Several potential user scenarios were created for the CLASSY platform. These included:

- A high school teacher
- A high school student
- A university professor
- A scenario with a user from the outside of education institutes
- A lifelong learner
- A user with a disability
- A VET (Vocational, Educational and Training) trainer

### **Survey Results**

Due to COVID restrictions a questionnaire survey method was selected to reach out to CLASSY targeted stakeholders to map their needs and preferences. The main objective of the survey was to identify and explore the obvious and/or hidden user needs and increase the chances of CLASSY being effectively adopted in practice as well as providing users with an accessible 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. A total of 944 users completed the survey. From those, 125 were teachers/trainers and 818 were students/trainees. An overview of the survey results suggested the following:

- Eight user scenarios were identified. The potential users of CLASSY cover different user categories with different characteristics. More than 900 responses were collected cumulatively from Greece and Ireland.
- Most of the target groups were familiar with remote education.
- A large proportion of users did not own virtual reality equipment.
- Users appear to prefer to login to the platform via authentication or registration. In addition, users did not want to interact with other users.

### **3. EVALUATION FRAMEWORK**

In the following chapters, the evaluation framework as well as the protocol material are presented in detail, in order to provide guidance to end user organisations who will implement the lab tests throughout the different phases (mock-up, 1<sup>st</sup> prototype, 2<sup>nd</sup> prototype) of CLASSY. Users will be provided with an information sheet and a consent form (ANNEX I).

#### **3.1 RESEARCH QUESTION**

The main goal of the lab tests is to identify significant usability issues of the CLASSY platform. The feedback will provide direction to the technical partners' efforts so as to implement the necessary changes and improvements before the testing phase with actual end users. This will minimise the risk of end-users' frustration and negative experience when interacting with CLASSY platform and will assist in the collection of further constructive feedback from the participants. The main research question of the in-lab and educational mock-up pilot is:

*Is the CLASSY platform usable?*

#### **3.2 TARGET GROUP INVOLVED**

##### **In-lab Pilots**

GEO has the responsibility to conduct the in-lab tests of each phase and for that reason, two professionals be employed with experience in online platforms, utility tools and adequate educational background in order to be able to apprehend the perspective of the end-users.

##### **Real Environment**

The target group in the real environment participants will have the following inclusion criteria:

- Aged 18+
- The educational background of the professionals launching the experiences could be teachers, lecturers or those involved in an educational setting.
- Not to be familiar with CLASSY platform, in order to have an objective and clear perspective.

- Willing to participate voluntarily in the project.

In the following chapters, the evaluation framework as well as the protocol material are presented in detail, in order to provide guidance to end user organisations who will implement the lab tests and real environment tests throughout the different phases of the CLASSY project.

### **3.3 METHODOLOGY**

The lab tests will be conducted in different periods throughout the project's testing phase. A in-lab pilot test should be carried out before the actual end-users test an iterative of CLASSY platform. All in-lab pilot that will be implemented in the project will follow the same evaluation framework. The same for all field pilots tests.

The methodology which will be followed will be a cognitive walkthrough. Cognitive walkthrough is a task-specific approach through which participants will learn by doing. It focuses on examining the usability and learnability of a product and intends to explore whether new users can easily use and navigate within the platform [1]<sup>1</sup>. More specifically, the users will be asked to perform a series of tasks and then respond to a set of questions from the perspective of the user, which in this case is the students. Through this methodology, emphasis is given on user's first experience and how easy the platform is learnt by new users or users with low IT literacy [2]<sup>2</sup>. Two more benefits of the cognitive walkthrough methodology which make it suitable for the pilots are that it can be carried out in a short period of time and it can be implemented during the design and development phase. Finally, teachers/lecturers are the most suitable target group to use this kind of methodology as they have insight on student needs, capacities and difficulties [1].

The starting point for the cognitive walkthrough is to prepare different user scenarios with a complimentary questionnaire, users will be asked to rate in importance features

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<sup>1</sup> Comparison of heuristic and cognitive walkthrough usability evaluation methods for evaluating health information systems, Reza Khajouei Misagh Zahiri Esfahani Yunes Jahani, Journal of the American Medical Informatics Association, Volume 24, Issue e1, 1 April 2017, Pages e55–e60, <https://doi.org/10.1093/jamia/ocw100>

<sup>2</sup> Blackmon, M. H. Polson, P.G. Muneo, K & Lewis, C. (2002) Cognitive Walkthrough for the Web CHI 2002 vol.4 No.1 pp463–470.



based around useability and accessibility of the platform. In the in-lab pilots, each time the professional identifies an issue, a note needs to be taken and then proceed with the remaining scenarios. The scenarios, list of actions and questions can be found in the section 3.4 'Protocol'. Likewise, real volunteer users will follow the same scenarios (having been amended after the in-lab recommendations) and take the survey that will follow.

When the cognitive walkthrough evaluation is completed, the professionals' notes will be gathered and prioritised, in order for technical partners to make the necessary amendments before the deployment of the CLASSY platform in a real environment. In the same way, after real field tests are over, the end-users' results will be gathered and given to SVR for an elaborate behavioural analysis (task 4 of IO4) and recommendations will be provided for the next phase of the project prototype.

### **3.4 Protocol**

The protocol is developed in order to provide guidance to all end-user organisations which participate in CLASSY project, for the preparation and implementation of all pilots through the phases of the project.

#### **Instructions during in-lab pilots**

The aim of this process is to help the project team identify any issues that the CLASSY platform may have or any tasks some students/lecturers may not be able or have difficulty to comprehend or perform during their navigation to the platform. For that reason, prior to the actual conduction of the field pilot test we'll provide them to two professionals from GEO that will go through the whole pilot process and provide their feedback for the whole procedure.

**Message to the professionals:** Below there are the scenarios along with the corresponding listed actions that you need to perform. After completing the scenarios, you are asked to fill the online survey <https://www.surveymonkey.com/r/MVT6R5W> regarding those scenarios. Throughout this procedure, please note down any comments, issues, problems that you may come across to or anything that is different than described or difficult to be understood, identified or followed from the perspective of a student, teacher or educational professional. Amendments will be suggested



during the in-lab pilots and will help shape the deployment of the application in a real environment.

### **Instructions during field pilots**

After having lab-tested the pilots, it's time for the field pilot tests with real users. A Classy member will hand over the pilot test to the end-users and will be present in order to resolve any issues there might be.

**Message to the participants:** Below there are some scenarios along with the corresponding listed actions that you need to perform in order to test Classy platform. After completing the scenarios, you are asked to fill the online survey <https://www.surveymonkey.com/r/MVT6R5W> regarding those scenarios. Throughout this procedure, you may ask any question that may arise to the Classy assistant that will be with you throughout the process. In order to proceed, please read carefully the consent form (Annex I) and continue with the pilot test only if you consent.

## **4. EVALUATION METHODOLOGY**

In-lab pilots will be evaluated and addressed depending on the professionals' comments. Those comments can either refer to the scenarios, to the survey or to the platform itself. In latter case, the development team will be informed of any malfunction or other matter that needs attention, a technical-meeting will take place with the development partners (VIR and GEO) and all issues will be addressed. In the case that there are issues with the scenarios or the survey, SVR will have the responsibility to carefully examine any comments from the professionals and address them accordingly. GEO, as project coordinator and in-lab tests responsible will have the final review of the in-lab evaluation.

The evaluation of the pilot results will be based on the quantification of the survey results. In effect, the survey results will be given 1 to 5 points, depending on the individual's answer to each item. The participants will be split into categories based on their age and background, so that the results will appear in groups, i.e. the mean average of the subjects who have graduated secondary school, found the "create experience" procedure "rather difficult", averaging 2,1 in a 1-5 scale. The evaluation results will comprise the input of task 3.4 where an elaborate behavioural analysis will

take place based on the pilot results and various recommendations will emerge for the technical team to work on for the next stage of the platform

## 5. CONCLUSIONS

The deliverable D3.2 focuses on the methodology which will be followed by the end-user organisations during the in-lab and field pilots, in order to provide them with guidelines for the procedure in order to ensure that a coherent, standard procedure is followed. The deliverable also includes a detailed protocol and instructions which can be used during the tests. Finally, the evaluation methodology that will be followed to all pilots is explained. This deliverable will have its annexes updated as new pilots are conducted, thus, new questionnaires and surveys are created.

## 6. REFERENCES

- [1] Comparison of heuristic and cognitive walkthrough usability evaluation methods for evaluating health information systems, Reza Khajouei Misagh Zahiri Esfahani Yunes Jahani, *Journal of the American Medical Informatics Association*, Volume 24, Issue e1, 1 April 2017, Pages e55–e60, <https://doi.org/10.1093/jamia/ocw100>
- [2] Blackmon, M. H. Polson, P.G. Muneo, K & Lewis, C. (2002) Cognitive Walkthrough for the Web CHI 2002 vol.4 No.1 pp463–470.

## **ANNEXES**

### **ANNEX I: 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-VET082750)

**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-VET082750) 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](mailto: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

### ΕΝΗΜΕΡΩΣΗ ΕΝΔΙΑΦΕΡΟΜΕΝΟΥ

**Τίτλος Μελέτης:** "CLASSY - Remote Class System" (GA No 2020-1-CY01-KA226-VET082750).

**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](mailto: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](mailto: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 οικογένειά 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.: Νο 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 απευθύνεται 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 διαδικασίες 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 [ssstyl@auth.gr](mailto:ssstyl@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.**

## **ANNEX II: MOCK-UP PHASE**

### **CLASSY MOCK-UP FIELD TEST QUESTIONNAIRE**

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 endeavours 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).

### **Consent for Irish participants**

**I confirm that I have been given and have read and understood the information sheet for the above study and have asked and received answers to any questions raised.**

I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason and without my rights being affected in any way. I understand that the researchers will hold all information and data collected securely and in confidence and that all efforts will be made to ensure that I cannot be identified as a participant in the study (except as might be required by law) and I give permission for the researchers to hold relevant personal data.

I agree to take part in the above survey.

## **THE SCENARIOS (MOCK-UP PHASE)**

### **Scenario 1:** User registration

- Click 'Register' button to create a new profile
- Add details such as username, name, and email address
- Click 'Register' button to create the new profile

### **Scenario 2:** Log into CLASSY

- Click the 'Log in' button
- Type the email used and password
- Click the 'Log in' button to submit details for authentication

### **Scenario 3:** Creating a session

- Click the 'Create Session' button
- Choose a title and add a name and description



- Add extra information to your session
- Click the 'Save' button to save the session

**Scenario 4:** Creating a 3D experience

- Click the 'My Experience' button
- Click the 'Create new Experience' button to start the building process
- Add a title, description, and information to the experience

**Scenario 5:** User creates a session in his/her experience

- Click the 'My Experiences' button
- Choose a title and add a date for the experience
- Click 'Finish' to create a session

**Scenario 6:** Users can see details of the session

- Click the button 'My Sessions'
- Copy the session code with an icon of copy to share it with your students
- Explore the session title, date and time of starting the experience
- Option to delete the session by clicking the 'Delete session' button

**Scenario 7:** Users can edit their profile

- Click the button 'Profile' on the left-hand side of the dashboard
- Select an avatar; choose a colour or texture
- Click the 'Save' button

**Scenario 8:** Users can logout of the platform

- Click the 'Logout' button on the left-hand side of the dashboard

**Scenario 9:** Student joins the session

- Click the 'Join Class' button
- Copy the session code into the box provided
- Add a username
- Choose an avatar and add characteristics
- Click the 'Join Session' button to join the session

**THE SURVEY (MOCK-UP PHASE)**



## Classy Mock-up Evaluation

I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason and without my rights being affected in any way. I understand that the researchers will hold all information and data collected securely and in confidence and that all efforts will be made to ensure that I cannot be identified as a participant in the study (except as might be required by law) and I give permission for the researchers to hold relevant personal data. I agree to take part in the above survey.

**\* Required**

1. Was the register button easy to find? \*

Mark only one oval.

	1	2	3	4	5	
Not Easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy

2. How did you find the registration process? \*

Mark only one oval.

	1	2	3	4	5	
Not Easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy

3. How did you find the login process? \*

Mark only one oval.

	1	2	3	4	5	
Not Easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy



4. Did you like the colour of the registration and login buttons? \*

Mark only one oval.

	1	2	3	4	5	
Disliked	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Really Liked

5. Did you like the experiences layout? \*

Mark only one oval.

	1	2	3	4	5	
Disliked	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Really Liked

6. Was it easy to find information about each experience? \*

Mark only one oval.

	1	2	3	4	5	
Not Easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy

7. Was it easy to start a session or experience? \*

Mark only one oval.

	1	2	3	4	5	
Not Easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy



8. Did you understand how to start a session or experience? \*

Mark only one oval.

	1	2	3	4	5	
Did Not Understand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy to Understand

9. Was it easy to create a session or experience? \*

Mark only one oval.

	1	2	3	4	5	
Not Easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy

10. Was it easy to add a description and upload an image for your new session or experience? \*

Mark only one oval.

	1	2	3	4	5	
Not Easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy

11. Was it easy to set a date to launch your session or experience? \*

Mark only one oval.

	1	2	3	4	5	
Not Easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy



12. Was it easy to access the 'My Sessions' section? \*

*Mark only one oval.*

	1	2	3	4	5	
Not Easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy

13. Was it easy to copy and share a code with students? \*

*Mark only one oval.*

	1	2	3	4	5	
Not Easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy

14. Was it easy to access the 'Profile' section? \*

*Mark only one oval.*

	1	2	3	4	5	
Not Easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy

15. Was it easy to change your avatar colour and features? \*

*Mark only one oval.*

	1	2	3	4	5	
Not Easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy





16. How did you find the logout process? \*

*Mark only one oval.*

	1	2	3	4	5	
Not Easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy

17. How did you find the 'Join Class' process? \*

*Mark only one oval.*

	1	2	3	4	5	
Not Easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy

18. Were you able to change your avatar features? \*

*Mark only one oval.*

	1	2	3	4	5	
Not Easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Easy



## **ANNEX III: FIRST-PROTOTYPE PHASE**

### **Scenarios for Classy platform (1<sup>st</sup> Prototype)**

#### **1st scenario**



User Register to classy

1. Press register to create a profile.
2. Type Username
3. Type Name
4. Type Email
5. Type Password. Passwords must have 7 to 15 characters which contain at least one numeric digit and a special character. Press the Register button.
6. You can see the characters of the password if you press the eye icon.
7. Press the Register button to create the profile.

Now you are registered.

#### **2nd scenario**



Users can log In to Classy.

1. Type Email or Username
2. Type password
3. If you want to see the password you type, press the eye icon.
4. If you want to stay logged in when you close the window of Classy check the box under the button of Log In.
5. Press the Log In button to login.

Now you are logged in to the Classy platform.



### 3rd scenario

User creates a session in an already existing experience.

1. Log in to the platform.
2. Press Experiences and a catalog of experiences appears on the screen.
3. For every experience there are two buttons. Press the button with the question mark and a window will appear with information about the experience.
4. Press the button Create Session and a window to create a new session will appear for the experience you chose.
5. Pick a title for your session. Press Continue.
6. Choose a Date for experience.
7. Press button TIME next to the Date button and choose the time you want the experience to begin.
8. Or press the checkbox under the Date to start the session now.
9. You can go back to the edit session with the Back button or continue with the Finish button.
10. Press Finish to create a session.

Now you created a session in an already existing experience.

### 4th scenario



User creates an experience.

1. Log in to the platform.
2. Press the button My Experiences on the list on the left.
3. Press the button Create new Experience.



4. Pick a title for Experience and press continue.
5. Add a Description and press continue or press Back to edit the title.
6. Upload your Image press + to upload it for your experience.
7. Press Finish to create the experience or back to edit the experience.
8. You can delete the experience if you press the button with the icon of bin.
9. You can create a Session if you press the button with the green arrow.

Now you created an experience.



#### **5th scenario**

User creates a session in his/her experience.

1. Log in to the platform.
2. Press the button My Experiences on the list on the left and the experiences you have created will appear.
3. Press the button with the green arrow to create a session in the experience you want , and a window will appear to create a new session for the experience you chose.
4. Press the button Create Session a window will appear to create a new session for the experience you chose.
5. Pick a title for your session. Press Continue.
6. Choose a Date for experience.
7. Press button TIME next to the Date button and choose the time you want the experience to begin.
8. Or press the checkbox under the Date to start the session now.



9. You can go back to the edit session with the Back button or continue with the Finish button.
10. Press Finish to create a session.

Now you created a session in your experience.

#### **6th scenario**



Users can see details of the session, delete the session or he/she can take the session code to give it to his/her students.

1. Log in to the platform.
2. Press the button My Sessions on the list on the left and the sessions you have created will appear.
3. You can copy the session code with an icon of copy to share it with your students.
4. You can see Session title, experience Based, Date and time of starting session.
5. You can delete a session if you press the button with icon of bin.

Now you can see details of the session, delete the session or take the session code to give it to the students.

#### **7th scenario**



Users can edit his/her profile avatar.

1. Log in to the platform.



2. Press the button Profile on the list on the left and you will be taken onto your avatar and profile page.
3. You can turn the avatar around with the slider underneath it.
4. You can choose the color of your avatar's eyes. Press the icon color picker and choose the color you want.
5. You can choose color for the avatar, press the Texture button and choose color.
6. You can edit the mouth of the avatar. Press button Mouth and pick happy Face or Sad Face
7. Press the button Save changes.

Now you created your own avatar.

#### **8th scenario**



User can log out from the platform.

1. Log in to the platform.
2. Press the button Log Out on the list on the left.

Now you are logged out.

#### **9th scenario**



Student joins the session.

1. Refresh the page. (Because a bug occurs when the avatar component renders.)
2. Press the button Join Class and a window will appear to join the session. Paste or write the Session Code that your teacher gave you.



3. Press Continue to join.
4. Write your username.
5. You can turn the avatar around with the slider underneath it.
6. You can choose the color of your avatar's eyes. Press the icon color picker and choose the color you want.
7. You can choose color for the avatar, press the Texture button and choose color.
8. You can edit the mouth of the avatar. Press button Mouth and pick happy Face or Sad Face
9. Press the button Join Session to join the session, or the button Back if you want to go back.

Now you are in the waiting room and you wait for the teacher to start the session.



## THE SURVEY (1<sup>ST</sup> PROTOTYPE)

### 1st Prototype Evaluation

#### Classy 1st Prototype Evaluation

I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason and without my rights being affected in any way. I understand that the researchers will hold all information and data collected securely and in confidence and that all efforts will be made to ensure that I cannot be identified as a participant in the study (except as might be required by law) and I give permission for the researchers to hold relevant personal data. I agree to take part in the above survey.

1. What device are you using to access the Classy platform?

Laptop	iPad	Chromebook	Mobile Phone
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. How did you find the registration process?

Hard	Somewhat hard	Neither easy or hard	Somewhat easy	Very easy
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. How did you find the login process?

Hard	Somewhat hard	Neither easy or hard	Somewhat easy	Very easy
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. After you have logged in, was it easy to find your profile page?

Yes	No
<input type="radio"/>	<input type="radio"/>

5. Were you able to find and change your avatar in the profile section?

Hard to find	Somewhat hard to find	Neither easy or hard to find	Somewhat easy to find	Very easy to find
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Were you able to find the experience library?

Easy to find	Somewhat easy to find	Neither easy or difficult	Somewhat difficult	Really difficult
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





7. Did you understand how to start a session or experience?

Hard to understand	Somewhat hard understand	Neither easy or hard understand	Somewhat easy understand	Very easy to under
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Was it easy to create a session or experience?

Hard	Somewhat hard	Neither easy or hard	Somewhat easy	Very easy
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. Was it easy to add a description and upload an image for your new session or experience?

Hard	Somewhat hard	Neither easy or hard	Somewhat easy	Very easy
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Was it easy to set a date to launch your session or experience?

Hard	Somewhat hard	Neither easy or hard	Somewhat easy	Very easy
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Was it easy to access the 'My Sessions' section?

Hard	Somewhat hard	Neither easy or hard	Somewhat easy	Very easy
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. Was it easy to copy and share a code with students?

Hard	Somewhat hard	Neither easy or hard	Somewhat easy	Very easy
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. How did you find the 'Join Class' process?

Hard	Somewhat hard	Neither easy or hard	Somewhat easy	Very easy
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



14. Do you think information was signposted correctly; did you find anything confusing about creating a session?

Yes  No

15. Did you understand how to use the editor when it first loaded?

Yes  No

16. How did you find the sidebar navigation?

Hard  Somewhat hard  Neither easy or hard  Somewhat easy  Very easy

17. Were you able to select a model and load it into the scene?

Hard  Somewhat hard  Neither easy or hard  Somewhat easy  Very easy

18. How did you find moving around each scene?

Hard  Somewhat hard  Neither easy or hard  Somewhat easy  Very easy

19. Were you able to use Sketchfab and load models into your scene?

Hard  Somewhat hard  Neither easy or hard  Somewhat easy  Very easy

20. Were you able to join a live session/experience?

Hard  Somewhat hard  Neither easy or hard  Somewhat easy  Very easy

21. Were you able to move around the live experience?

Hard  Somewhat hard  Neither easy or hard  Somewhat easy  Very easy

22. How did you find the logout process?

Hard  Somewhat hard  Neither easy or hard  Somewhat easy  Very easy

DONE