EDICULA

Educational Digital Innovative Cultural heritage related Learning Activities

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Project Code: 2020-1-EL01-KA203-079108

| NATIONAL TECHNICAL UNIVERSITY OF ATHENS [GREECE] | SAPIENZA UNIVERSITA DI ROMA [ITALY] | BEZALEL ACADEMY OF ARTS AND DESIGN [ISRAEL] | PERPETIELSI SRL [ROMANIA] | ISRAEL ANTIQUITIES AUTHORITY [ISRAEL] | HELLENIC RESEARCH INSTITUTE OF THE ALEXANDRIAN CIVILIZATION [GREECE] |

PerpetielSI SRL

INTELECTUAL OUTPUT: **O4 EDICULA DIGITAL GAMES**
DELIVERABLE: **D4.6 First completion and evaluation**
LEAD ORGANIZATION: PerpetielSI
DATE: 31 August 2023

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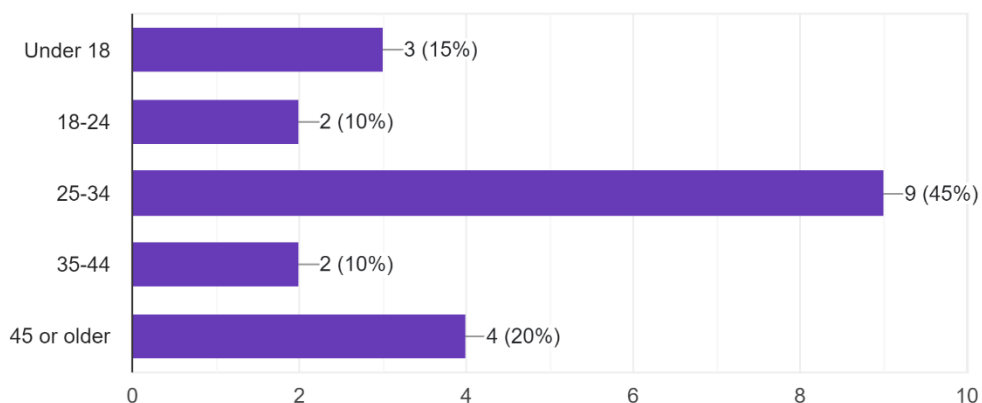Erasmus+ Programme
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1. Introduction

It is common practice that AR/VR applications are evaluated by a large user base. A questionnaire was distributed among the project partners to evaluate the application and the EDICULA Digital Game. Through these questionnaires, user feedback has been collected for evaluation to enable the game characteristics improvement, but more importantly to understand whether VR and AR based games are educationally effective, useful, meaningful and, most importantly, appealing to users. This deliverable presents the results of the evaluation.

2. EDICULA Digital Game Questionnaire

Twenty participants with different backgrounds (students, researchers, professors, engineers, technicians) participated in the evaluation which is still ongoing using Google Forms. The questions and answers are presented below.
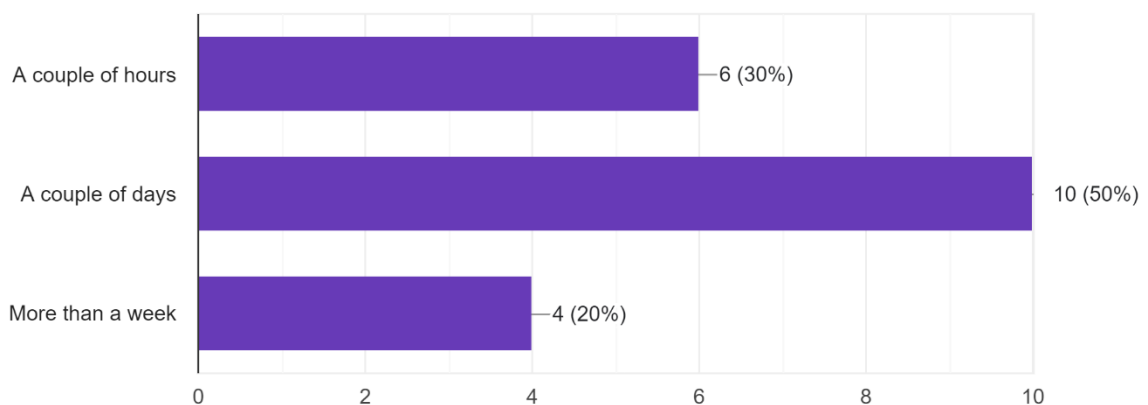
What is your age?
20 responses

How long have you been using the edicula project ?
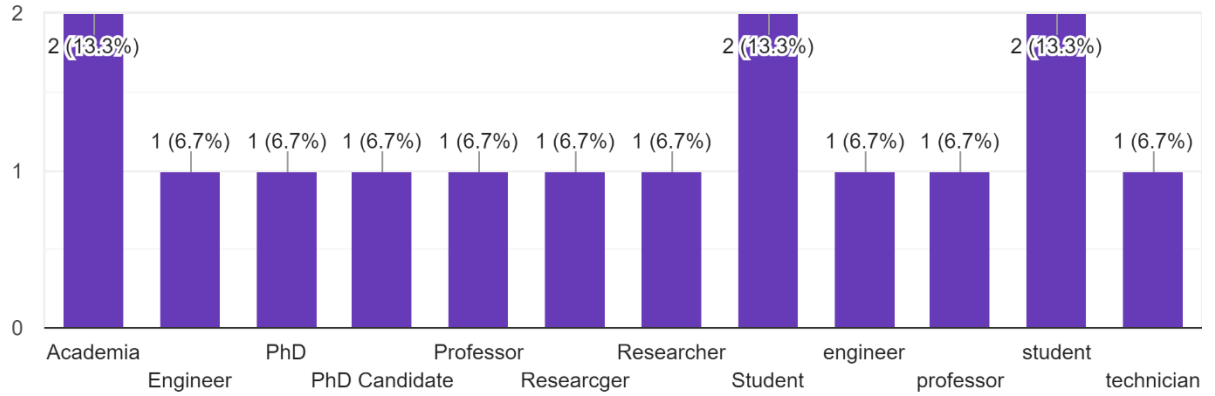20 responses

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Occupation ?

15 responses

How would you rate the overall edicula project experience

20 responses

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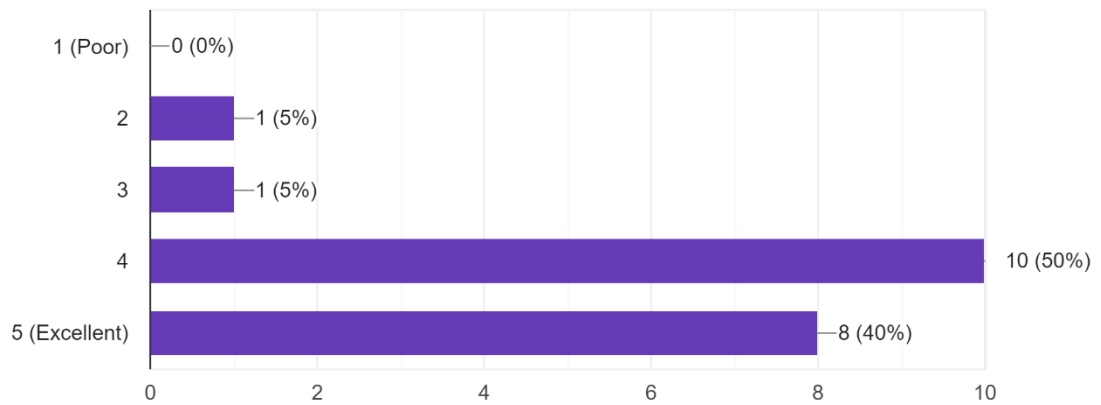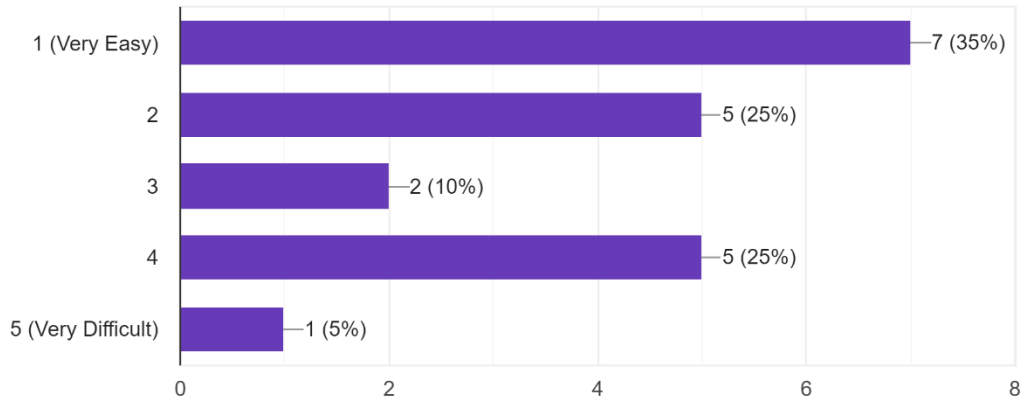Erasmus+ Programme
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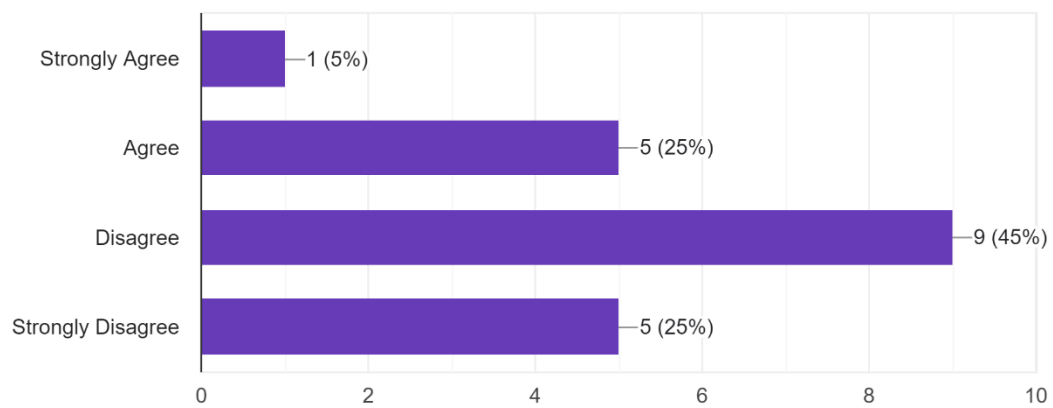
ΙΔΡΥΜΑ
ΚΡΑΤΙΚΩΝ
ΥΠΟΤΡΟΦΙΩΝ
IKY

How easy was for you to navigate through the whole edicula project experience as a first time user?
20 responses

The whole edicula project experience needs more introductory explanations.
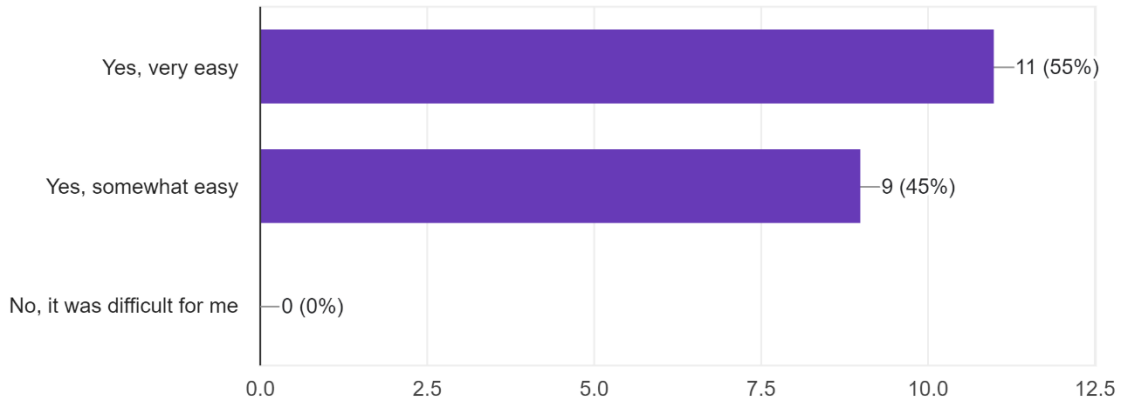20 responses

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Did you find easy the information you were looking for ?

20 responses

Response	Count (%)
Yes, very easy	11 (55%)
Yes, somewhat easy	9 (45%)
No, it was difficult for me	0 (0%)

How engaging did you find the whole edicula project in terms of promoting learning and educational content?

20 responses

Response	Count (%)
1 (Not Engaging at all)	2 (10%)
2	2 (10%)
3	1 (5%)
4	8 (40%)
5 (Highly Engaging!)	7 (35%)

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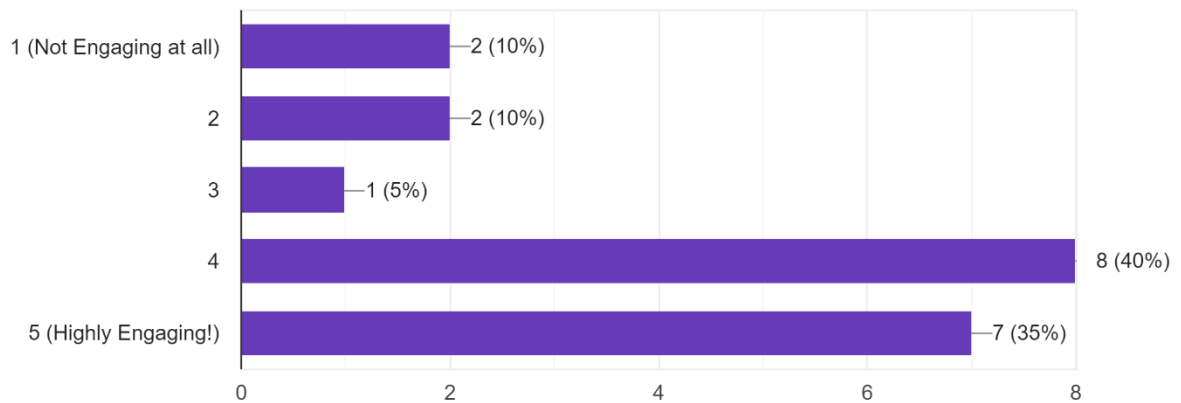ΙΔΡΥΜΑ
ΚΡΑΤΙΚΩΝ
ΥΠΟΤΡΟΦΙΩΝ
IKY

How would you rate the clarity and effectiveness of the edicula's project educational objectives and instructions?

20 responses

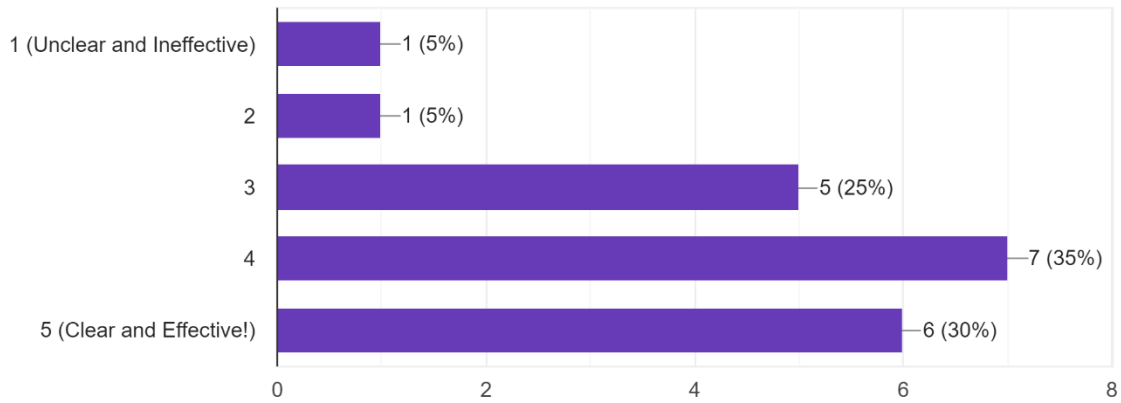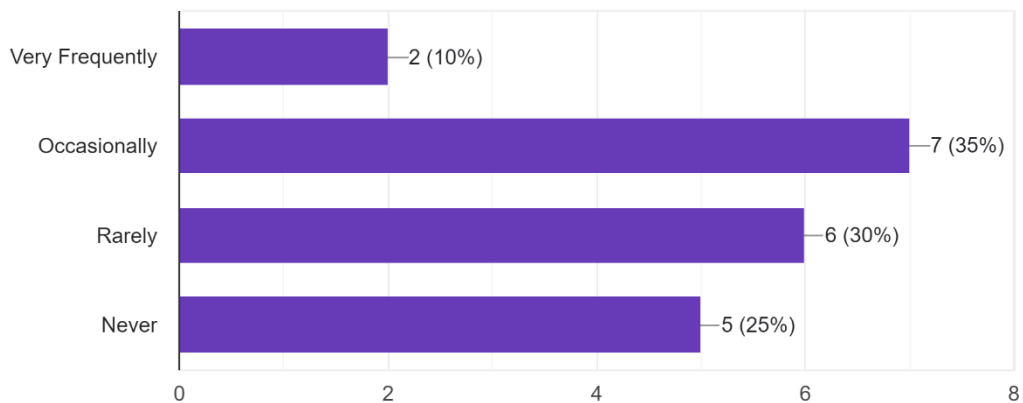How frequently did you encounter any technical issues or difficulties?

20 responses

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Please provide specific details about what you enjoyed the most. (short answer)

10 responses

Were there any aspects that you found unsatisfactory? If yes, please provide details (short answer)

5 responses

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Did the whole edicula project experience meet your expectations?

20 responses
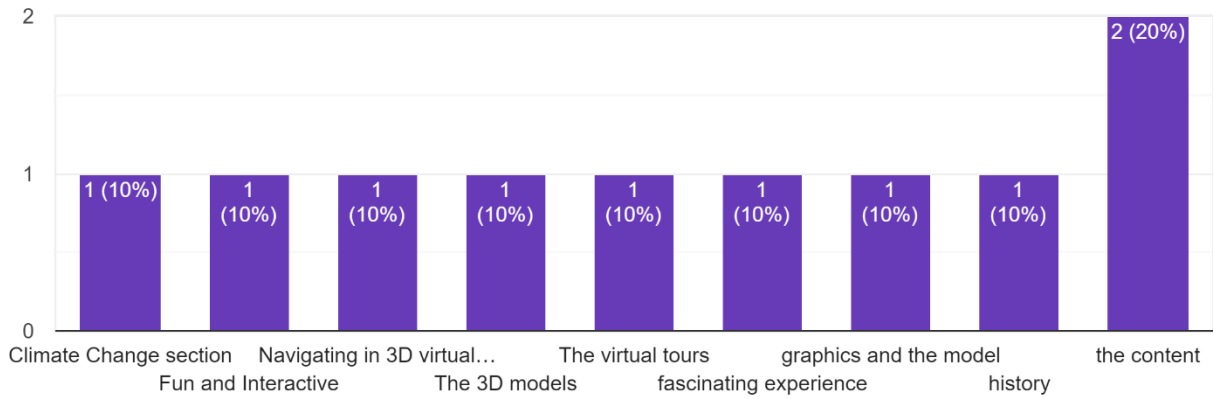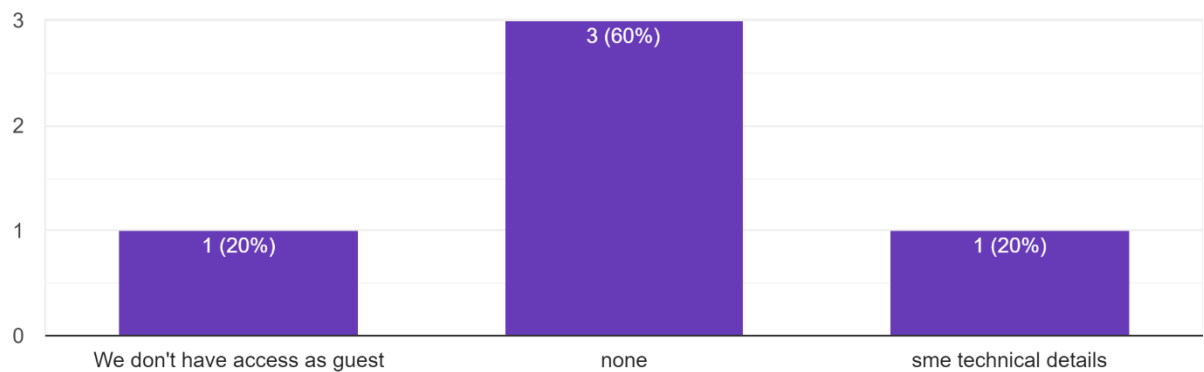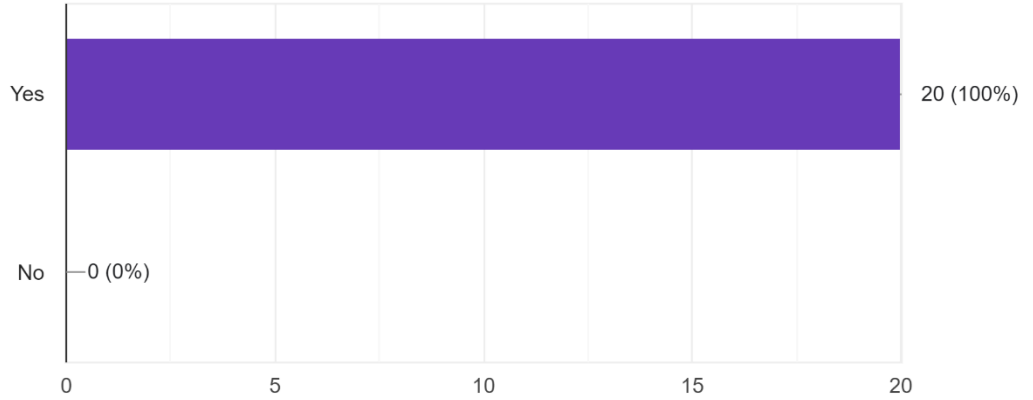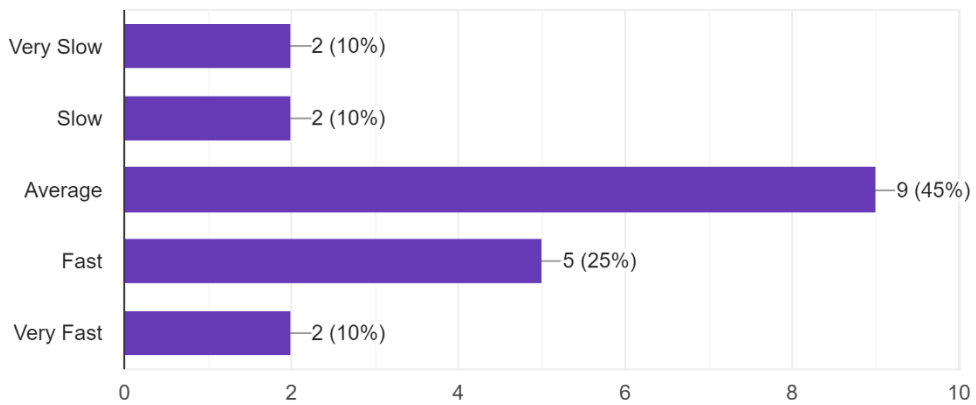

How would you rate the loading speed?

20 responses

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How likely are you to experience again the edicula project ?

20 responses

Very Likely	10 (50%)
Somewhat Likely	6 (30%)
Neutral	1 (5%)
Somewhat Unlikely	2 (10%)
Very Unlikely	1 (5%)

How likely are you to recommend it to others?

20 responses

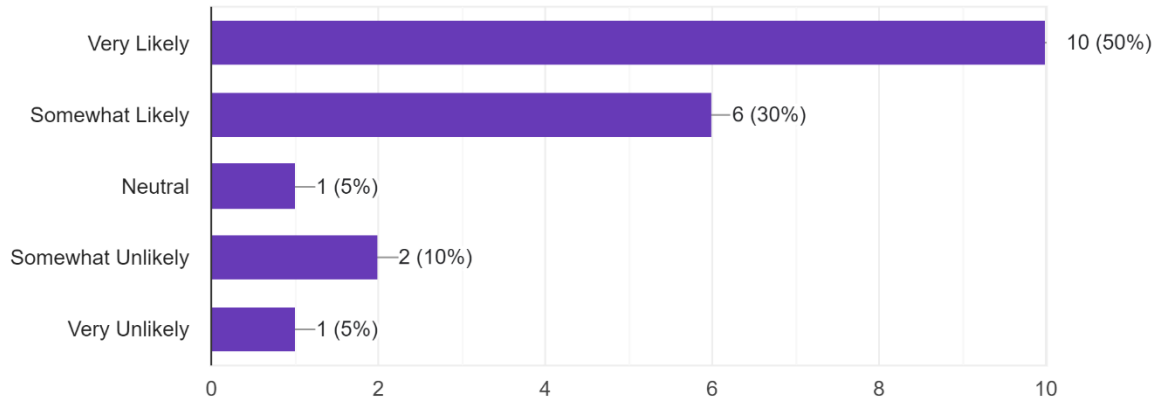|	
Very Likely	12 (60%)
Somewhat Likely	7 (35%)
Neutral	0 (0%)
Somewhat Unlikely	1 (5%)
Very Unlikely	0 (0%)

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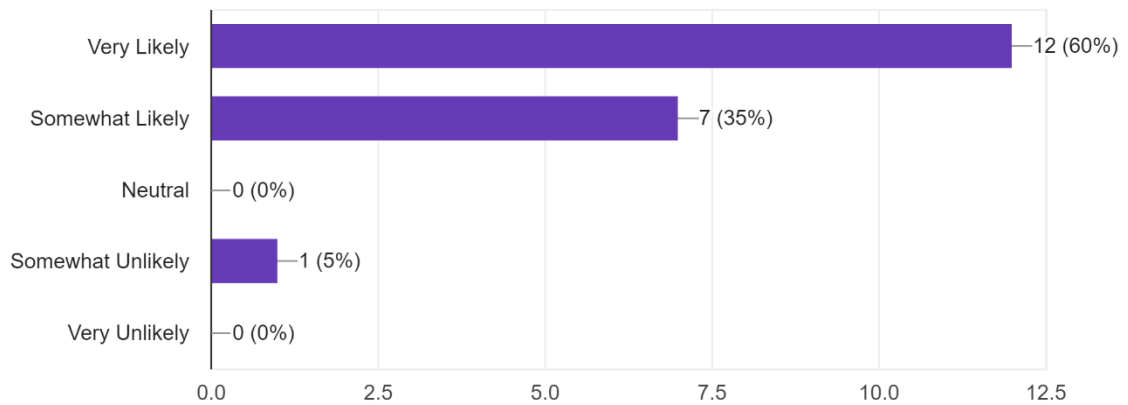
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Do you have any suggestions for improvements ?

6 responses

> Give access to more users

> I recomment to use Unreal Engine as the main development tool, because it works a lot faster than Unity.

> none

> Game buttons (questions and answers) can be improved

> Fast transition between tours

> Improve the available content at the Digital Class

The majority of them (90%) had a great or excellent overall experience with the EDICULA, while 16 of them found the project highly engaging in terms of promoting learning and educational content. All of the participants found easily or somewhat easily the information they were looking for during the virtual tours and the project met all their expectations. Moreover, 80% of them is somewhat or very likely to experience again the EDICULA Digital Game and 95% will recommend it. A really important question addressed to the participants was if the project needs more introductory explanations and 70% of them disagreed or strongly disagreed, meaning that the available instructions and information have been quite effective and adequate. The user-friendly experience was also confirmed by the fact that 60% of the users could very easily or easily navigate through the project for the first time. Furthermore 65% of the users found the project's educational objectives and instructions clear and effective. The participants provided also input about the elements they enjoyed most including the 3D models, the fascinating, interactive experience, the virtual environment and tours, the history and content.

It is really important to also focus on the elements of the experience that need to be improved, removed or changed. According to the users, 45% encountered technical issues or difficulties very frequently or occasionally, probably since the game requires quite a lot of computational power to properly function especially in high graphics quality. This might also be the reason why 65% of the users rated the loading speed between the game scenes below average. Finally, they made a few suggestions for improvements concerning the access to the EDICULA Digital Game to a wider audience, the speed transition between the scenes and the appearance of the UI (buttons and text) at the Quiz Game.

3. Conclusion

In conclusion, the study revealed that VR based games are appealing and do attract user engagement and interest especially when the content is cultural heritage related and the virtual environment consists of realistic 3D models. However, because of the integration of real world and 3D high resolution elements, VR games also have problems and deficiencies. In order to overcome those, regular and efficient surveys need to be conducted to get useful feedback from the users leading to constant improvements.