

**Erasmus+ Programme**  
**Key Action 210: Small-scale Partnerships in Adult Education**



**Co-funded by  
the European Union**

**AGREEMENT NUMBER – 2021-1-CY01-KA210-ADU-000033993**

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**Abacus: Immersive data science education**

**Activity 3: User-based Evaluation of Narrative games**

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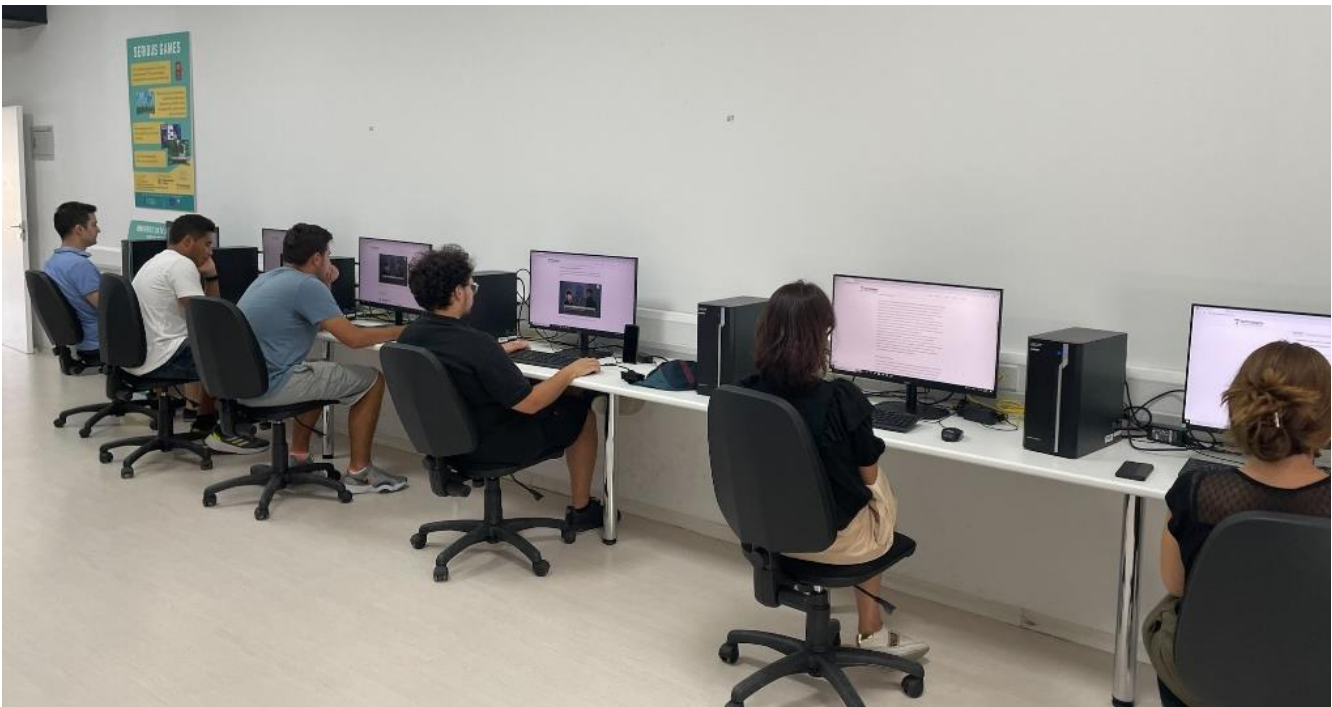
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## I. Introduction

The Abacus project organized a multiplier event on the 30th of August at AUCY (American University of Cyprus) to launch the Abacus platform and gather feedback from the participants. The event aimed to create awareness about the project, communicate its concept, goals, and results, and engage potential users in active participation. This report provides an overview of the event and its outcomes.

The multiplier event served as a platform to promote the Abacus project and its educational intervention. The content of the event included presentations, demonstrations, and interactive sessions to showcase the features and benefits of the Abacus platform. The key messages were carefully formulated to ensure a clear understanding of the project's objectives and outcomes. Communication materials, such as brochures and informational handouts, were prepared and distributed to the participants.

The target group for this activity comprised adults from diverse backgrounds, irrespective of ethnicity or gender. The Abacus project adhered to strict privacy policies to safeguard the participants' personal information during both the lab experiments and the pilot phase. Opt-in and opt-out mechanisms were implemented, allowing users to regulate their level of participation and the disclosure of personal data.



The multiplier event played a crucial role in achieving the project's objectives. By creating awareness among potential adopters and users, it paved the way for the widespread adoption of the Abacus platform. The feedback collected during the event helped shape the project's future activities and improvements. The active engagement of the participants helped in building a community of potential users who will benefit from the educational resources offered by Abacus.

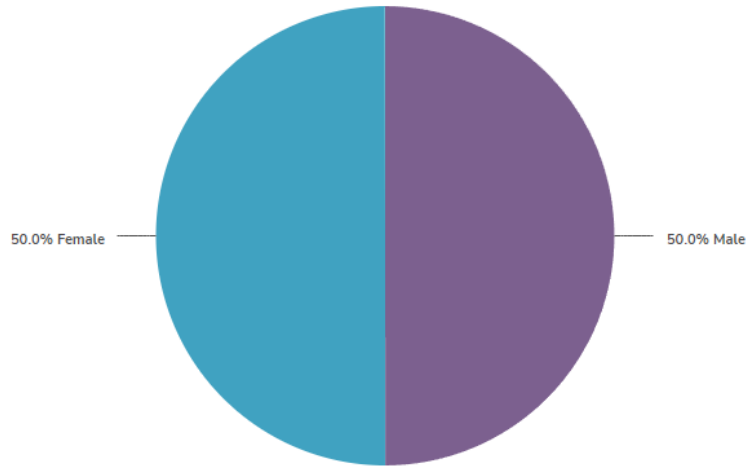


The main expected result of the multiplier event was to maximize the project's innovation potential and attract a wide range of stakeholders. The event aimed to create awareness and validation of the project's results among the targeted audiences. The dissemination activities were collectively performed by all project partners, leveraging their respective profiles and expertise. Industrial partners focused on industry sectors, distributors, and client networks, while academic and research partners aimed to reach research institutes and universities across Europe. In this report we will look at the results of an evaluation survey with the purpose of collecting user-based feedback on Abacus e-learning platform.

## II. User Survey Results

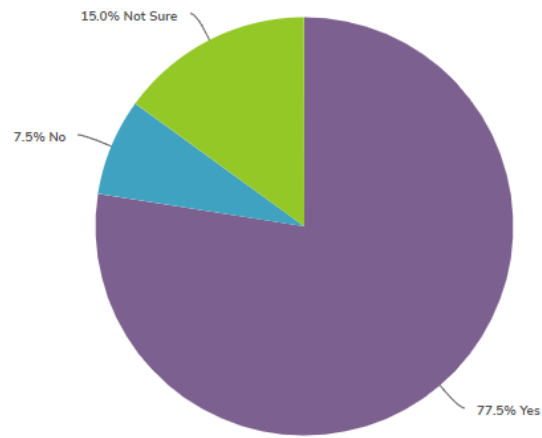
All of the participants gave informed consent to take part in the survey.

1. What is your gender identification?



Value	Percent
Male	50.0%
Female	50.0%

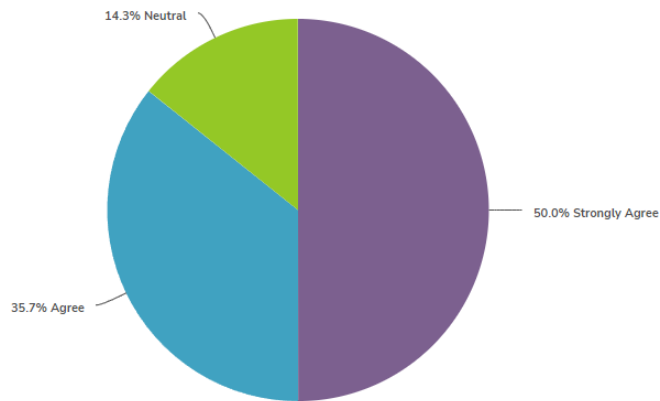
2. Have you ever played a serious game? (for example educational or language learning game)



Value	Percent
Yes	77.5%
No	7.5%
Not Sure	15.0%

Most of the participants have played a serious game in the past.

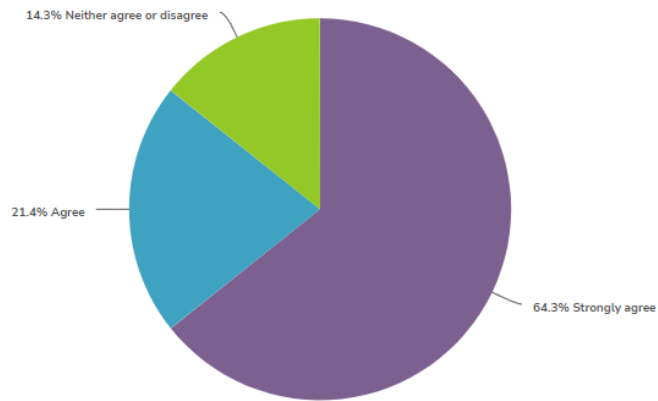
3. I would benefit from playing a serious game on data science



Value	Percent
Strongly Agree	50.0%
Agree	35.7%
Neutral	14.3%

Most participants think they would benefit from a serious game on data science.

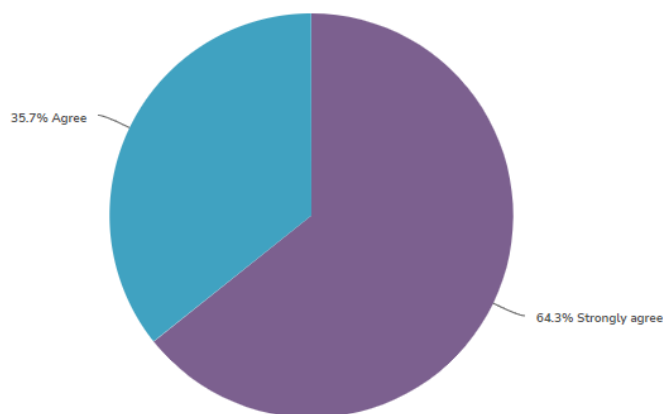
4. Interactive interventions such as Abacus, could be beneficial tools to support data science education.



Value	Percent
Strongly agree	64.3%
Agree	21.4%
Neither agree or disagree	14.3%

Most participants think that it would be beneficial to have interactive interventions such as Abacus to support data science education.

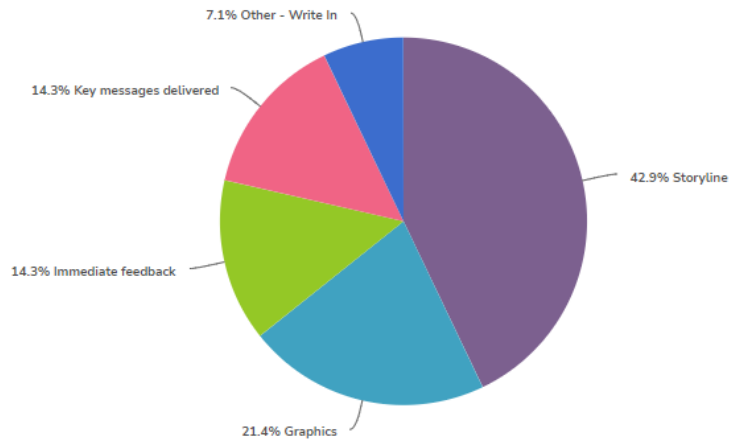
5. Interactive interventions such as Abacus, could be beneficial tools to support other topics as well.



Value	Percent
Strongly agree	64.3%
Agree	35.7%

All participants agree that interventions such as Abacus could be developed to support other topics apart from data science.

6. Can you please choose the feature that you appreciated the most?



Value	Percent
Storyline	42.9%
Graphics	21.4%
Immediate feedback	14.3%
Key messages delivered	14.3%

Most participants appreciated the storylines of the serious games, but also the graphics, the immediate feedback provided and the key messages delivered.



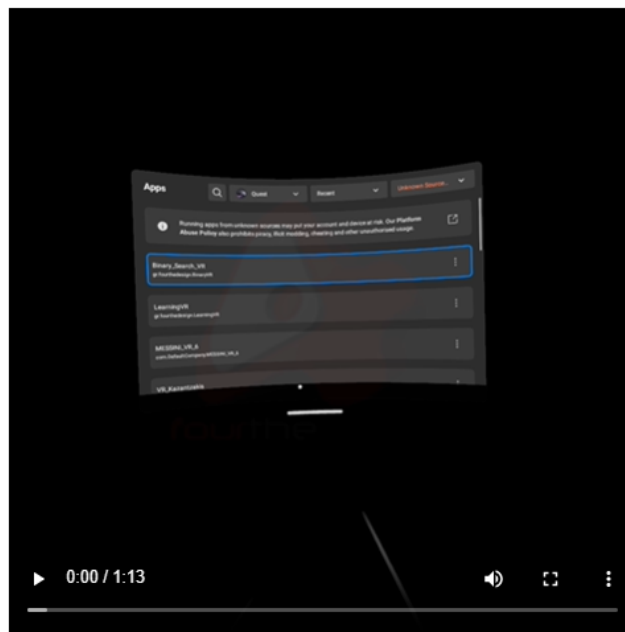
### III. Discussion

Based on the user survey results, the Abacus project team has identified the key features and elements that users appreciated the most in the Abacus interactive games. As a result, the curriculum development will be focused on the following:

**Engaging Storylines:** The serious games will feature immersive storylines that are relatable and engaging for the target audience. The storylines will be designed to appeal to the interests and preferences of young adults and adults over 18 years old.

**Interactive Gameplay:** The serious games will offer interactive gameplay that involves problem-solving, decision-making, and critical thinking. The games will be designed to provide immediate feedback to users and promote a sense of accomplishment and progress.

## Binary Search



Download the Abacus Augmented Reality game on your Android device and learn about Binary Search!

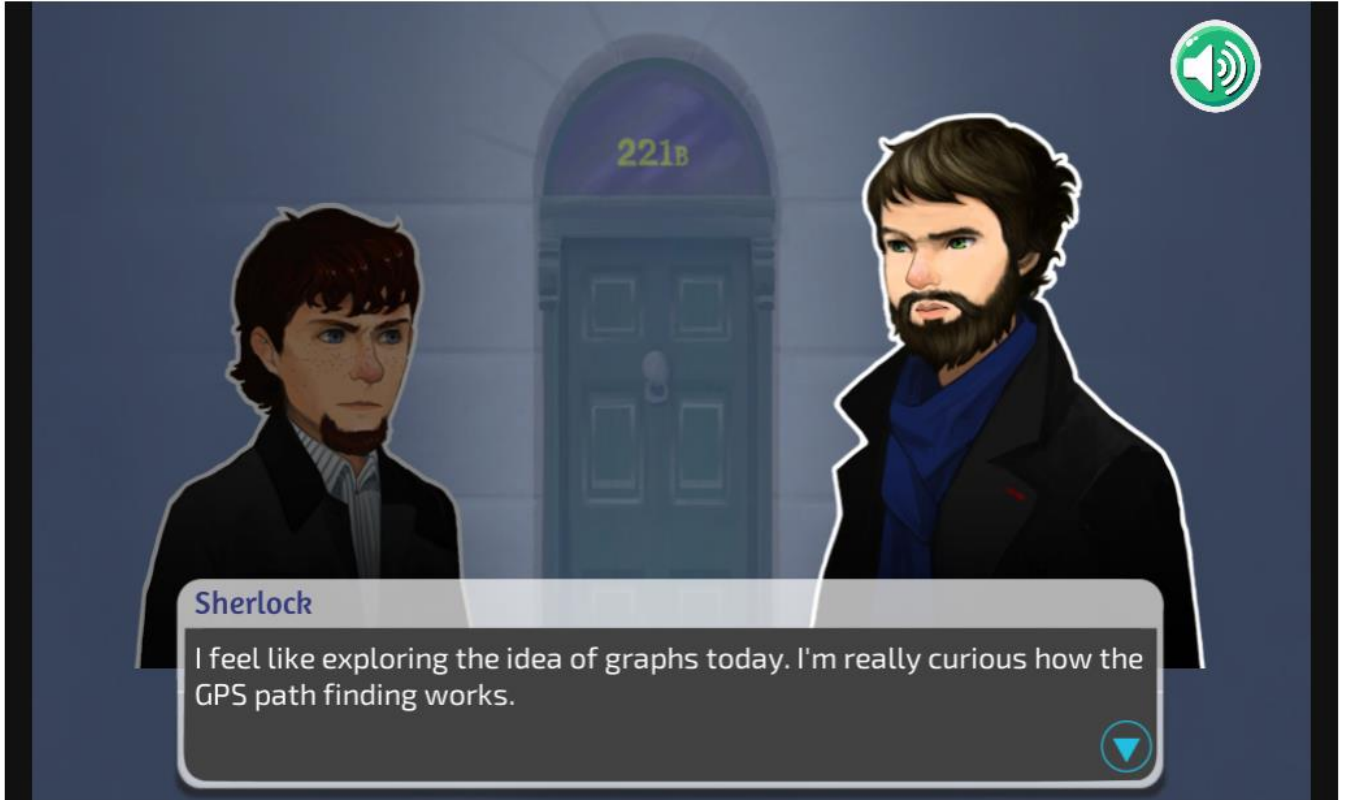
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**Visually Appealing Graphics:** The serious games will feature visually appealing graphics that enhance the immersive experience and engage users on multiple levels. The graphics will be designed to be clear and easy to understand, even for individuals with limited experience in data science and complex algorithms.

**Key Messages Delivery:** The serious games will aim to deliver key messages related to data science and complex algorithms in an engaging and accessible manner. The games will provide users with a basic understanding of data science concepts and the ability to apply them in real-world scenarios.

Scalability: The curriculum will be scalable, allowing users to progress at their own pace and level. The curriculum will be designed to be accessible to users with varying levels of knowledge and experience in data science and complex algorithms.

### Complex Algorithms



## IV. IV. Conclusion

The Abacus project team recognizes the importance of user-based feedback in the development of effective educational tools. The user survey results have provided valuable insights into the features and elements that users appreciate in serious games related to data science and complex algorithms. The Abacus curriculum development focused on delivering an engaging, interactive, and accessible experience that meets the needs and preferences of the target audience.

