Sparks

GAMIFICATION AND GAME-BASED LEARNING

BEST PRACTICES AND **REQUIREMENTS** FOR **DIGITAL ENVIRONMENTS**

Greece

Sparks

Strategic Partnership for Digital Education Readiness
Co-funded by the Erasmus+ Programme of the EU

Game-based Learning: best practices and requirements for digital environments

NATIONAL REPORT -GREECE

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Project Information

Project title	Sparks
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Project Partners	Bexley C-Level IT [RO]
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	Femxa Formación S.L.U. [SP]
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Introduction

The Sparks project

The COVID-19 pandemic had a significant impact on the delivery of Education and Training all over the world: almost 1.6 billion learners from pre-primary to tertiary education, including VET, were affected (UNESCO, "COVID-19 Impact on Education", 2020), while education and training providers have been forced to adapt to digital tools to maintain services to learners. The pandemic caused to students a great loss due to the difficulty in re-engaging with education activities; their demotivation as they fall further behind; the curbing of their educational aspirations due to the uncertainty of the learning environment (OECD, "Education and COVID-19: Focusing on the long-term impact of school closures", 2020).

In this context, Sparks, a Partnership for Digital Education Readiness project, co-founded by the Erasmus Plus Programme of the European Union and implemented by six organizations from Greece, Italy, Spain, Poland, Portugal and Romania, aims to develop a new Conceptual Framework for Game-Based e-Learning Programs and E-Learning platform to let VET providers deliver innovative online learning experiences with the use of gamification, and boost their learners' motivation and engagement in learning.

The transnational research of Best Practices and requirements in digital environments

The transnational research developed gathers best practices and requirements for Digital Environments of game-based learning and gamification across the six European countries: Spain, Greece, Poland, Italy, Romania, and Portugal.

The research lead by Femxa S.L.U has followed three phases. Firstly, the identification and collection of 48 best practices in game-based learning and gamification experiences, following a unify common criteria tailor designed for the Sparks Project. Secondly, the development of an online survey as a quantitative research tool to validate the key game mechanics, dynamics, components, and game features found as success factors of the best practices collected. The survey was disseminated in the six countries to collect the input of 304 experts in in education and training, validating with incredibly successful results the best practices. None of the key elements included in the survey received an average below an 83% of high ratings (4 or 5).

Thistly, ten Focus Groups aiming at gathering the requirements and needs in digital environments of the VET providers and learners. The activities were celebrated with 144 educators and learners from different backgrounds of the VET community from the six EU countries, that hosted 24 participants each. Lastly, the best practices and validated game features, as well as the results of the discussions developed during the Focus Groups, were comparatively analyse by the expert researchers of the six organizations, concluding in this transitional final report

The results will be used by the transnational research team to identify the process and system features and the game elements to transfer into a Conceptual Framework for Game-based e-Learning Programs.

Best Practices

Each partner organisation analysed the best practices in game-based learning and gamification for education and training in their country.

The definitions adopted by the research team for "game-based learning" and "gamification" are the following:

- "**Game-Based Learning** refers to the borrowing of certain gaming principles and applying them to real-life settings to engage users" (Trybus, 2015);

- "**Gamification** is the use of game elements and game design techniques in non-game contexts" (Werbach, 2012).

The following pages report the results of the analysis carried out by KEAN in Greece.

1. Ellinopoula

Title	**Ellinopoula.com**
Date	2016
Authors	Anna Sakis
Geographical scope	Ellinopoula.com is the vision of a young Greek American born and raisedin the United States. However, his passion and love for Hellenism led him to create an online platform that aims to teach the Greek children and parents of the Diaspora the Greek language pleasantly and practically. The game is in English/Greek and available online in any country.

Partners/Stakeholders

CEO of Ellinopoula.com, Ms. Anna Sakkis.

Target groups/Beneficiaries

Ellinopoula is an educational platform catering to the needs of children and parents of the Greek diaspora, especially focused on building and maintaining Greek language ability through entertainment and other methods.
- For Greek schools and teachers
- For individual learners
- Adults

Context

The Greek diaspora, Hellenic diaspora or homogenea are the communities of Greek people living outside Greece. Such places historically include Cyprus, Albania, North Macedonia, parts of the Balkans, southern Russia, Ukraine, Asia Minor, the region of Pontus, Eastern Anatolia, Georgia, the South Caucasus, Egypt, southern Italy, and Cargèse in Corsica.

Centers of the Greek diaspora are New York City, Boston, Chicago, Los Angeles, London, Melbourne, Sydney, Auckland, Montreal, Toronto, Vancouver, Rio de Janeiro, São Paulo, Culiacán Rosales, Mexico City, and Buenos Aires

The SAE – World Council of Hellenes Abroad has compiled several studies on the Greek diaspora. The total number of Greeks living outside Greece and Cyprus is uncertain. Available census figures indicate about three million Greeks outside Greece and Cyprus, but the SAE estimates about seven million worldwide. The Greek diaspora defends Greek interests, particularly in the US. Assimilation and loss of the Greek language influence the definition of the Greek diaspora.

Greek diaspora people of a certain age may remember learning the Greek alphabet from a colorful little book, urged on by a determined parent whose mission was to teach you the Greek language and cultural heritage of the homeland they so loved. Times have changed, but the mission and the role of parents and learners are the same.

Ellinopoula knows that diaspora parents want an effective method for teaching Greek, a method that their learners won't lose interest in, and what better way to pass this on than using fun and exciting technology children love?

Objectives

Ellinopoula.com is an online educational platform that helps beneficiaries learn Greek by using a unique combination of interactive educational activities and videos based on the most recent advances in linguistic and educational research. It is a safe no-ads environment perfect for those moments when you need to keep learners entertained, or just plain busy and at the same time help them learn Greek. Ellinopoula is promoted as a more "fun" way of learning Greek, offering over 5000 interactive activities and over 400 "classroom" videos that "teach Greek as though they are actually in a classroom". The website contains games, videos, and thousands of interactive educational activities for students and a range of management tools for schools, trainers and teachers.

Process

What's the best way to learn Greek? How can someone learn Greek better? Learning a language is not always easy. Therefore, it's important to capture their attention and engage their natural desire for playing and learning. Greek diaspora parents want an effective method for learning Greek without losing interes. Ultimately, learning is fun discovering the beauty and heritage of the Greek language. Consequently, ellinopoula.com helps people learn Greek with aural, visual, and verbal methods featuring fun content steeped in Greek culture.

Comprehensive Greek Lessons
Structure leads to success and learning Greek better with **comprehensive lessons**. For this reason, they created Ellinopoula, an interactive platform to help learn Greek through a **comprehensive curriculum**.

Safe Environment
At Ellinopoula, well-being is a top priority. For this reason, they screen all content for safety and suitability. Furthermore, it is free of ads and other distractions.

Structured Learning
Lessons are in an appropriate structure to support their learning efforts. To address this, they created the "Learning Path," a highly effective method for maintaining and increasing interest in learning Greek. The Learning Path is a feature exclusive to Ellinopoula.com, designed for children and adults starting at a level of little to no Greek.

Fun and Engaging
They structured their curriculum and content to motivate learners to stay on the path of learning. That's why they continuously create new fun videos, games, and interactive activities with beautiful, colourful animations and loveable characters children can relate to. Furthermore, learners learn Greek and maintain their enthusiasm for longer due to the exciting visual surprises they've added throughout the platform.

Visual Aids

To help learners learn Greek more effectively they've incorporated instructions, subtitles, and captions in English in the first and second levels of the curriculum. Furthermore, they've added Greek subtitles to all videos to help learners to connect Greek narration and text. In addition, they've incorporated selective highlights to make it easier for learners to follow the audio and focus their attention on keywords and concepts.

Learners Learn Greek from Native Speakers
High-quality voice-overs are critical for learners to improve their listening comprehension of the Greek language. Therefore, they've added native Greek voice-overs to boost learners' listening and pronunciation. Furthermore, listening to the voice-overs and repeating them leads to rapid improvement in learning Greek.

Greek Heritage
They incorporate beautifully designed Greek themed backgrounds and content featuring Aesop's Fables, the Odyssey, and other Greek heritage gems. As a consequence, learners learn Greek and discover the abundance of their Greek heritage. Furthermore, learners become increasingly interested in learning Greek as they associate the heritage with the language and vice versa. For instance, learners have fun listening to Odysseus speaking in Greek!

Levels
One size does not fit all - that's the reason most learners give up learning Greek. In other words, effective learning requires tailoring the content for each kid. That's why learners need to start learning at a level they feel comfortable at. Consequently, ELLINOPOULA.COM follow the age and level guidelines for teaching Greek as a second language as set out by the Hellenic Ministry of Education. In this way, parents can rest assured their child is learning Greek in the best way possible.

Reinforcement
When learners learn Greek, a very common challenge is a lack of reinforcement and opportunity to practice the grammar and vocabulary they've learned in each lesson. Consequently, ELLINOPOULA.COM give learners the opportunity to practice through fun videos, games, and other activities to keep up their learning momentum. As a result, learners learn Greek while having fun with just 5 minutes a day on the Learning Path.

Below are Indicated, as established in the methodology, which dynamics, mechanics and game components are necessary to develop the practice.

Dynamics
- Emotions. Yes. The relevant emotions are curiosity and competition. The learners compete with themselves.
- Narration. The game has Greek themed backgrounds and content featuring Aesop's Fables, the Odyssey, and other Greek heritage gems.
- Progress. Learning Greek is meant to be a joyous and rewarding adventure for learners. Consequently, the young heroes are not get lost in a "linguistic labyrinth." Accordingly, every young hero needs guidance and a path when setting out on their quest to learn Greek. Therefore, they help learners on their journey of discovery by equipping them with the Learning Path and other tools for them and their parents to track their progress in learning the Greek language.

- Relationships. Only Ellinopoula.com online classes can social interactions.
- Restrictions.

Mechanics
- Collaboration. Only online classes include collaboration.
- Competition. The learners compete with themselves. Ellinopoula.com also helps schools motivate students to complete their homework by recognizing a "Student of the Month" who receives a congratulatory diploma award.
- Challenges. Ellinopoula has created 'Speak Up' a much-awaited new feature for learners to practice speaking Greek to help them practice and gain the confidence they need to master the Greek language! Speak Up is Ellinopoula's new feature for helping learners practice speaking Greek; it's based on cutting edge voice recognition software that enables learners to interact with the app by speaking Greek! The way it works is Speak Up prompts learners to read a word or phrase out loud. If learners get it right they move onto another word. If they get it wrong, Speak Up prompts them to try again.
- Rewards. The "Reading to Learn" quizzes are another example of a very effective interactive learning activity. Children see a particular action portrayed in a photo, and they must choose from a list of three options. Getting the wrong answer prompts children to "try again" while getting it right rewards them with a "Bravo! Keep learning!»
- Retro alimentation. No.
- Luck. No.
- Transactions. No.
- Turns. No.

Components
- Avatar. No.
- Collections. Yes
- Combat/Fighting. No
- Unlocking of contents. Yes, upon completion of each level the next level is unlocked.
- Teams. No
- Social graphics. No
- Eastern eggs. No
- Insignias. Ellinopoula.com helps schools motivate students to complete their homework by recognizing a "Student of the Month" who receives a congratulatory diploma award.
- Time limits. There is no time limit.
- Missions. No.
- Levels. Yes. ELLINOPOULA.COM has a wide range of levels including:
  Kindergarten - for young children ages 5 - 6 years old and there are no prerequisites.
  Beginner low - for no or very little basic knowledge, such as understanding, writing, and reading of the Greek language.
  Beginner intermediate – for students with a basic/elementary knowledge of the Greek language who can read sentences containing all the letters of the alphabet who know very basic grammar.

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Ellinomatheia – for students with moderate or good knowledge of the Greek language, both in writing, speaking, and comprehension of texts, and at least 3 years of Greek.

Ellinomatheia exam preparation – for students aged 8-12 planning on taking the exam in May. This is a fast pace class and though it is preparing learners for the exams, any student who can handle the pace can participate.

- Adult beginner low – for adults with little or no Greek language skills.
- Gifts. No
- Tutorials. No

STRUCTURE OF THE GAMIFICATION EXPERIENCE

- Modelling of Knowledge: at all times we are talking about an educational game, so it is necessary to indicate how the content is integrated into the game. For example, through questions and answers (challenges) and short topics such as "Do you know that..." that appear at different moments of the game.
Ellinopoula.com help learners learn Greek with aural, visual, and verbal methods featuring fun content steeped in Greek culture.

- Game process. Indicate: (1) The objective of the game and whether it is well defined. Does it follow the SMART rule: specific, measurable, achievable, relevant and on time? Yes. Ellinopoula.com helps students learn effectively through breakthrough proprietary software and entertaining content. The platform's core smart-teaching function – the "Learning Path" – adapts to each student's progress, and the breadth of the content spans more than 300 structured lessons, 800 educational videos, and 7,000 fun games, educational and interactive exercises. (2) Proposition of the challenge, is it coherent with the learning objective, is it original, is it attractive? Yes, although the challenges are not integrated into a coherent story. (3) Rewards/reward systems: is the reward management model defined, is it directly related to the learning object? Yes. (4) Are the rules of the game clear and understandable to the user? Yes. (5) Is the competition motivating? Yes. (6) Existence of different levels of difficulty. Yes, the Learning Path is a feature exclusive to Ellinopoula.com, designed for children starting at a level of little to no Greek.

- Design: by studying the possible calculation algorithms, system architecture and data model. This information is not available. Criteria to be considered: what data does the system collect? The system collects and stores into the database the username, email address, password and all answers from participants, scores and levels accomplished.
- Development of the game considering the interface: what are the usability conditions? Computer with access to internet, browser, email address.
- Indicate whether a pilot test has been carried out to verify that it meets all the requirements initially proposed. ELLINOPOULA.COM responding to their subscribers' requests for live online school service, last summer they launched a pilot round of Live Online Group Classes via Zoom which was met with great enthusiasm and success, and then they had another successful round in the fall.
- Indicate whether the game has been validated: have all the problems and deficiencies encountered during the fine-tuning been debugged? The game works fine, which is an indication that all issues have been resolved.
- Indicate whether the same practice has been successfully replicated.

The StaEllinika platform offers learner profiles and performance visualization for learners, teachers, trainers and parents while also delivering engaging lesson materials, videos, quizzes and rich interactive experiences. StaEllinika can either complement existing curriculum or act as a stand-alone program for schools.

Technical details and device requirements
Size: 6.6MB
Version: 1.1.5
Developed By: Ellinopoula Ltd (Privacy Policy)
Application Permissions:
Access information about networks
Record audio
Open network sockets
Power Manager Wake Locks to keep processor from sleeping or screen from dimming
Allows an application to receive messages via Google Cloud Messaging
Receive message via Amazon Device
Minimum Operating System: Android 5.0
Approximate Download Time: Less than 1 minute

Results

There is no pressure and no boring homework. The learners learn the Greek language at their own pace and their parents can stay up to date with their progress using the minute reports.

Impact

The platform was created to make it fun and engaging for learners to learn the Greek language at home. It features exciting games, engaging videos, and thousands of interactive educational activities.

- ● For Greek schools and teachers
Ellinopoula.com provides every Greek school teacher flexibility and ready materials so they can concentrate on passing the Greek language and Hellenism to children.
- ● For individual learners
The platform was created to make it fun and engaging for learners to learn our beautiful Greek language. It features exciting games, engaging videos, and thousands of interactive educational activities.
- ● Online Classes
As a response to the lockdown, ELLINOPOULA.COM offers online live group classes for children to boost their Greek in a positive environment lead by certified Greek language teachers.

Success factors

- ● Available on browsers on both computers and tablets or smartphones;
- ● iPad app;
- ● Availability of the game online.

Limitations

Available only in English.

Related resources: Project website: www.ellinopoula.com

FINAL ASSESSMENT

Category	Rating	Comment
Efficacy	★★★★★	Ellinopoula.com includes a well-balanced combination of different game elements that effectively support the achievement of the desired learning outcomes.
Transferability	★★★★★	The combinations adopted could be transferred to multiple learning paths.
Usability	★★★★★	Excellent User Experience.
Playability	★★★★★	Excellent interactions and high-quality gameplay.
Innovation	★★★★★	An innovative and unique e-learning platform designed for learners to learn Greek online and help trainers, parents and teachers pass on Hellenism to the next generation.
Inclusion	★★★★★	Ellinopoula is available online to all, offers a free account and the option to enhance your account with subscriptions and paid features.
Efficiency	★★★★★	Ellinopoula.com won three Gold Awards: - Best Online & Distance Learning Platform 2021 - Best Digital Education Platform 2021 - Best Innovation in Teaching 2021
Ecosystem Diversity	★★★★★	Available on browsers on both computers and tablets, and through our iPad app, Greek language learning is not only fun and exciting for learners, but also convenient for parents.

Low   High

2. StaEllinika

Title	**Staellinika.com**
Date	2020
Authors	StaEllinika is an initiative of the General Secretariat for Greeks Abroad and Public Diplomacy at the Ministry of Foreign Affairs in collaboration with the Ministry of Education and Religious Affairs and the SNF Centre For Hellenic Studies at Simon Fraser University (SFU) with support by the Stavros Niarchos Foundation (SNF).
Geographical scope	The game is in English/Greek and available online in any country.

Partners/Stakeholders

- General Secretariat for Greeks Abroad and Public Diplomacy at the Ministry of Foreign Affairs
- Greek Ministry of Education and Religious Affairs
- SNF Centre For Hellenic Studies at Simon Fraser University (SFU)
- Stavros Niarchos Foundation (SNF)

Target groups/Beneficiaries

The StaEllinika platform offers learner profiles and performance visualization for learners, teachers and parents while also delivering engaging lesson materials, videos, quizzes and rich interactive experiences. StaEllinika can either complement existing curriculum or act as a stand-alone program for schools.
- For Greek schools and teachers

Greek schools are feeling pressure under COVID-19 government measures to offer a meaningful learning experience for students while teachers are supported with modern technology and learning resources. In light of the current COVID-19 pandemic, we are developing tools and features to better facilitate online teaching of the Greek language for schools and other educational institutions.
- For individual learners

Learning the Greek language is about reconnecting with your cultural heritage and strengthening your ethnic and cultural identity. This is exactly what Staellinika is designed to do. All Staellinika apps are made for beginner learners!
Over 30,000 learners world wide.

Context

The Greek diaspora, Hellenic diaspora or homogenea are the communities of Greek people living outside Greece. Such places historically include Cyprus, Albania, North Macedonia, parts of the Balkans, southern Russia, Ukraine, Asia Minor, the region of Pontus, Eastern Anatolia, Georgia, the South Caucasus, Egypt, southern Italy, and Cargèse in Corsica.

Centers of the Greek diaspora are New York City, Boston, Chicago, Los Angeles, London, Melbourne, Sydney, Auckland, Montreal, Toronto, Vancouver, Rio de Janeiro, São Paulo, Culiacán Rosales, Mexico City, and Buenos Aires.

The SAE – World Council of Hellenes Abroad has compiled several studies on the Greek diaspora. The total number of Greeks living outside Greece and Cyprus is uncertain. Available census figures indicate about three million Greeks outside Greece and Cyprus, but the SAE estimates about seven million worldwide. The Greek diaspora defends Greek interests, particularly in the US. Assimilation and loss of the Greek language influence the definition of the Greek diaspora.

Greek diaspora people of a certain age may remember learning the Greek alphabet from a colorful little book, urged on by a determined parent whose mission was to teach you the Greek language and cultural heritage of the homeland they so loved. Times have changed, but the mission and the role of parents and learners are the same.

The StaEllinika platform offers learner profiles and performance visualization for learners, teachers and parents while also delivering engaging lesson materials, videos, quizzes and rich interactive experiences. StaEllinika can either complement existing curriculum or act as a stand-alone program for schools.

Objectives

Staellinika, an online platform and suite of apps developed by the SNF New Media Lab at the SNF Centre for Hellenic Studies, provides individuals ranging from preschool-aged children to young adults with innovative teaching and learning tools designed to help them reconnect with their heritage language and culture.

To date, Staellinika has over 30,000 registered web and app users around the world.

Provide a multi-faceted digital learning environment, optimized for both mobile devices and computers. Staellinika.com uses technology to increase student engagement, especially at younger ages, while at the same time providing an attractive vehicle for approaching the Greek language, through a fully personalized learning experience.

Process

Greek Ages 4+

Explore a small neighborhood, meet new friends and learn about the seasons, the colours, the animals, parts of the body and much more! Listen to old favorite and original songs, sing along and learn more than a hundred Greek words and phrases. Enjoy 10+ animated videos, hundreds of colorful flashcards and interactive activities and discover how exciting and fun learning Greek can be!

Children from four to six years, represent great differences in their developmental capabilities from year to year. The pre-school level course of 'Staellinika' project addresses this by incorporating multiple layers on the learning materials included in each module. As the learners revisit the content at a later age, they will discover something new, as their skills develop. Additionally, the course design allows the child to explore a diverse and colorful neighborhood, as recent studies in early childhood education has shown that young learners in pre-school age prefer an exploratory learning experience to an achievement - based one.

The core instructional objective of the particular level is to facilitate children to build a basic vocabulary, as well as a set of standard phrases for simple communication circumstances. The learning materials include small stories based on fairy tales and

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contemporary life, as well as simple songs that introduce the vocabulary for each module. Videos promote interaction, through repetition or music-kinetic activities that accompany the linguistic component, thereby reinforcing the retention of vocabulary. The stories are carefully animated, in order to provide visual reference for every language element. Songs use repetitive patterns and simple lyrics, to maximize their effectiveness as a study material.

Greek Ages 6+

Join the Heroes of the Disk in their quest to thwart the plans of a team of supervillains to steal some of the most important artifacts of Greek history and culture. Travel all over Greece, collect spy points and unlock different powers and rewards! Along the way you will learn to speak and understand Greek, and you will begin using what you have learned to introduce yourself, describe your family, your house, your school and much more!

This level targets children in the first grades of elementary school. Educational psychology researchers argue that learning more than one alphabetical system simultaneously, even though it can be done, is quite overwhelming for the young learners. Since the Greek alphabet presents substantial differences from the latin alphabet that other languages use, it is suggested that written speech for a second language should be postponed beyond grade 2. For that reason, the early elementary level course of Staellinika platform focuses on oral communication skills in the Greek language, while literacy is introduced more rigorously in the next level course.

The learning experience is mainly story-driven. Progress in the course unlocks a series of cartoon episodes, corresponding to the modules of the course. The theme of the cartoon series, "Heroes of the Disk", is relatable to children of that particular age and incorporates ideas and concepts that combine elements of popular cartoon series with Greek cultural and historical references. The aim of the series is to create motivation for the learners, as well as reconnecting them with their cultural heritage. In addition to their role in building and reinforcing learner motivation, these cartoon episodes constitute a language resource and a learning material, exposing the students to a language-rich experience while providing the context for the presentation of a complex task, which is the object of the particular module.

Greek Ages 9+

Join the Heroes of the Disk in their quest to thwart the plans of a team of supervillains to steal some of the most important artifacts of Greek history and culture. Travel all over Greece, collect spy points and unlock different powers and rewards! Along the way you will learn to speak and understand Greek, and you will begin using what you have learned to introduce yourself, describe your family, your house, your school and much more!

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well as reconnecting them with their cultural heritage. In addition to their role in building and reinforcing learner motivation, these cartoon episodes constitute a language resource and a learning material, exposing the students to a language-rich experience while providing the context for the presentation of a complex task, which is the object of the particular module.

Greek Ages 13+

Learning Greek has never been easier! Following the principles of microlearning and gamification, use this course to take your first steps in the Greek language. With hundreds of flashcards, authentic language use examples and comprehensive guides, you will learn the Greek alphabetic system, beginner level communication skills and grammar fundamentals. This course has been designed to introduce you to the language, avoiding an overwhelmingly steep learning curve. Learning tools will offer the opportunity for a comprehensive monitoring of your learning experience and performance.

The Staellinika course for this level is focusing on balanced development of all four linguistic skills (listening comprehension, reading comprehension, speaking, writing) in a culturally and communication rich context. The digital learning environment facilitates self-regulated learning, where the learners assume responsibility for their learning, monitor their performance, choose appropriate learning strategies and adjust their learning behavior, in order to achieve personalized learning goals. This level is focused on learner agency and a highly customizable learning experience.

Learners with this platform can learn Greek through Greek mythology! Follow at the heroes' footsteps, collect glory points and use them to unlock new myths and learn about the gods and the monsters inhabiting the mythological version of ancient Greece. Begin your journey of learning Greek along with Perseus, Odysseus and Ikarus. Take your first steps on the Greek language and learn words and expressions along with exciting mythological stories.

Indicate, as established in the methodology, which dynamics, mechanics and game components are necessary to develop the practice.

Dynamics
- Emotions. Yes. The relevant emotions are curiosity and competition. The learners compete with themselves.
- Narration. The game has Greek themed backgrounds and content.
- Progress. The Staellinika platform is focusing on balanced development of all four linguistic skills (listening comprehension, reading comprehension, speaking, writing) in a culturally and communication rich context.
- Relationships. No
- Restrictions.

Mechanics
- Collaboration. No
- Competition. The learners compete with themselves.
- Challenges. The learning process relies on the metaphor of exploration, with the learners exploring and facing challenges in ancient Greece as a customizable character. The avatar's journey becomes their own, and the development of the characters abilities mirrors their own progress in learning Greek. In terms of instructional goals, the knowledge space is extended to include written speech production and comprehension, along with activities that require artifact creation.The theme of the level is directly related to Greek mythology, gods, heroes and monsters. The learners take the role of a Greek hero who traverses the length of ancient Greece, reliving the most popular myths and learning about the places

where they took place. Introductory videos present an animated narration of various ancient Greek myths, while the learning experience reflects the hero's journey by gradually unlocking and completing smaller subunits / levels.

- Rewards   Learners travel all over Greece, collect spy points and unlock different powers and rewards!
- Retro alimentation. No.
- Luck. No.
- Transactions. No.
- Turns. No.

Components

- Avatar. Yes
- Collections. Yes
- Combat/Fighting. No
- Unlocking of contents. Yes, upon completion of each level the next level is unlocked.
- Teams. No
- Social graphics. No
- Eastern eggs. No
- Insignias. Ellinopoula.com helps schools motivate students to complete their homework by recognizing a "Student of the Month" who receives a congratulatory diploma award.
- Time limits. There is no time limit.
- Missions. No.
- Levels. The learning experience is mainly story-driven. Progress in the course unlocks a series of cartoon episodes, corresponding to the modules of the course. The theme of each cartoon series, "Heroes of the Disk", is relatable to children of that particular age and incorporates ideas and concepts that combine elements of popular cartoon series with Greek cultural and historical references.
- Gifts. No
- Tutorials. No

If necessary, indicate the structure of the gamification experience following this structure.

- Modelling of Knowledge: at all times we are talking about an educational game, so it is necessary to indicate how the content is integrated into the game. For example, through questions and answers (challenges) and short topics such as "Do you know that..." that appear at different moments of the game.

Staellinika.com help learners learn Greek with aural, visual, and verbal methods featuring fun content steeped in Greek culture.

- Game process. Indicate: (1) The objective of the game and whether it is well defined. Does it follow the SMART rule: specific, measurable, achievable, relevant and on time? Yes. (2) Proposition of the challenge, is it coherent with the learning objective, is it original, is it attractive? Yes. (3) Rewards/reward systems: is the reward management model defined, is it directly related to the learning object? Yes. (4) Are the rules of the game clear and understandable to the user? Yes. (5) Is the competition motivating? Yes. (6) Existence of different levels of difficulty. Yes.
- Design: by studying the possible calculation algorithms, system architecture and data model. This information is not available. Criteria to be considered: what data does the system collect? The system collects and stores into the database the username, email address, password and all answers from participants, scores and levels accomplished.

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of the European Union

- Development of the game considering the interface: what are the usability conditions? Smartphones, tablet, pc or laptops with access to internet, browser, email address.

- Indicate whether a pilot test has been carried out to verify that it meets all the requirements initially proposed. In May 2020, the platform was made available as a pilot in select schools of the Greek Orthodox Archdiocese of America, in collaboration with the Hellenic Ministry of Education and Religious Affairs, and the SNF Centre for Hellenic Studies at SFU.

- Indicate whether the game has been validated: have all the problems and deficiencies encountered during the fine-tuning been debugged? The game works fine, which is an indication that all issues have been resolved.

- Indicate whether the same practice has been successfully replicated.

Ellinopoula is an educational platform catering to the needs of children and parents of the Greek diaspora, especially focused on building and maintaining Greek language ability through entertainment and other methods. The platform's core smart-teaching function – the "Learning Path" – adapts to each student's progress, and the breadth of the content spans more than 300 structured lessons, 800 educational videos, and 7,000 fun games, educational and interactive exercises.

Results

Children of the diaspora can now travel the wonderful world of Greek language, mythology and culture, all from their home computer, mobile phone, or tablet thanks to the 'StaEllinnika' platform. This new online platform and suite of apps was developed by the SNF New Media Lab in the SNF Centre for Hellenic Studies as part of a project called "Rebooting the Greek Language," a two-year initiative supported by the SNF to bring new technologies and advances in pedagogy to the preservation of the Greek language in the diaspora.

Impact

The platform was created to make it fun and engaging for learners to learn the Greek language at home. It features exciting games, engaging videos, and thousands of interactive educational activities.

- For Greek schools and teachers

Greek schools are feeling pressure under COVID-19 government measures to offer a meaningful learning experience for students while teachers are supported with modern technology and learning resources. In light of the current COVID-19 pandemic, staellinika.com is developing tools and features to better facilitate online teaching of the Greek language for schools and other educational institutions.

- For individual learners

The Staellinika applications have been designed in order to facilitate meaningful parent participation. Parents can register their children and monitor their learning while they learn too! It features exciting games, engaging videos, and thousands of interactive educational activities.

Success factors

- Available on browsers on both computers and tablets or smartphones;
- iPad app;
- Availability of the game online.

Limitations

The availability of the game only in English and Greek could be a limitation. The Ministry of Foreign Affairs has expressed an interest in customizing and adapting the platform for Spanish, German, and French speakers, while the team at SFU is planning additional applications which will pivot from language to the realms of Greek history and culture.

Related resources: Project website, www.staellinika.com

FINAL ASSESSMENT

Category	Rating	Description
Efficacy	★★★★★	StaEllinika includes a well-balanced combination of different game elements that effectively support the achievement of the desired learning outcomes.
Transferability	★★★★★	The combinations adopted could be transferred to multiple learning paths.
Usability	★★★★★	Excellent User Experience.
Playability	★★★★★	Excellent interactions and high-quality gameplay.
Innovation	★★★★★	An innovative and unique e-learning platform designed for learners to learn Greek online and help trainers, parents and teachers pass on Hellenism to the next generation.
Inclusion	★★★★★	StaEllinika is available online to all, offers a free account and the option to enhance your account with subscriptions and paid features.
Efficiency	★★★★★	Staellinika was named a finalist in this year's EdTech Awards in the Language Learning Solution category. The EdTech Awards were established in 2010 to recognize and celebrate the most exceptional innovators, leaders, and trendsetters in education technology.
Ecosystem Diversity	★★★★★	Available on multiple devices.

Low   High

3. Contribution Squad OPAP

Title	**'Contribution Squad' OPAP**
Date	2014
Authors	OPAP is the leading gaming company in Greece and one of the most renowned in its industry worldwide. The company, founded in 1958 as the country's national lottery and listed in the Athens Exchange in 2001, is the exclusive licensed operator of all numerical lotteries (7 games), sports betting (4 games) and horse racing. It also operates exclusively, as a controlling shareholder (67%) through a joint venture, the passive lotteries and instant (scratch) games in Greece.
Geographical scope	Greece

Target groups/Beneficiaries

Adults of all ages and gender Aiming to engage the general public with the children hospitals renovation initiative, OPAP has launched, since 2014, the engaging OPAP 'Contribution Squad' initiative, inviting people to get involved in the project through an engaging and fun mobile app.

Context

Since 2014, OPAP has been standing beside NGOs across Greece, which support children in need, through the "Wishing Ornaments" initiative. The aim of this initiative is to help contribute to a greater social effort, through the fulfillment of children's wishes.

At the same time, OPAP implements projects that support the operation of organizations and improve the benefitting children's quality of life.

In previous years, we invited children supported by the "Smile of the Child", "SOS Children's Villages" and "ELEPAP" organizations to write their wishes down on a simple piece of paper. However, due to the adverse conditions induced by the COVID-19 pandemic in 2020, the initiative was implemented only online.

As such, people were invited to participate in the program and fulfill children's wishes through the "Contribution Squad" mobile app and the opapcsr.gr website.

In total, 5,034 children's wishes were fulfilled through the program.

The gifts were delivered during a special event, attended by well-known celebrities and athletes. Additionally, OPAP offered significant support to the participating organizations, which included:

• The supply of hygiene material for the safe implementation of programs for "Together for the Children"

• The supply of heating fuel to cover the needs of "SOS Children's Villages" homes in Vari.

• The supply of technological equipment for 11 housing facilities of the "Smile of the Child" organization, to support the

education and entertainment needs of children.

Objectives

Players can answer four questions correctly in the Quiz test and with each correct answer OPAP offers for the children hospitals. In the Jump test, players must avoid obstacles and reached the finish line. Players must find the differences between the two images in the Spot test. And for those who run there is the Run test. If the players travel a part of the specific route OPAP offers money for the children hospitals. But if they complete it then the amount of the offer increases even more.

Process

The Games:

QUIZ
Answer all the questions. For every correct answer, OPAP offers.

JUMP
Avoid all obstacles by tapping on your device screen and collect all the blue hearts. Reach the end and OPAP will offer for you.

PHOTO CHALLENGE
Upload your photo according to the theme of each challenge. For every photo you upload, OPAP offers for you.

FAST RUN
Swipe right or left to avoid all the obstacles and collect the blue hearts that appear. Reach the end and OPAP will offer for you.

SPOT
Find the differences between 2 pictures. For every difference you find, OPAP offers for you

SPINNER
Turn the spinner as fast as you can and OPAP will offer for you.

RUN
Walk or run the distance of each challenge and OPAP will offer for you.

Additional Contribution methods

Daily Bonus: Every day, you just open the app and you will collect an olive wreath. Collect as much as you can and OPAP will offer for you.

Share your challenge result to Facebook and you double the amount that OPAP offers for you.

Team bonus: Join one of the Teams, or create your own and earn the Team Bonus. OPAP will offer more for you.

The tests of the "OPAP Offer Team", through which the players collect points so that OPAP continues to offer to children, include from knowledge questions and engraved words to decorating a Christmas tree. The most popular test is the Quiz. Armed with knowledge and speed, players are called upon to answer as many questions as we can correctly, within a given time. In addition, players have the opportunity to participate in a Quiz for many players, thus claiming points from our opponents. In Photo Puzzle players are asked to properly combine nine mixed pieces to form an image. At Spot it players are looking to find the differences, while at Jolly Christmas players decorate our own virtual Christmas tree. At Catch players guide the hero of the ordeal to collect as many Christmas ornaments as possible. At Puzzle Blast players make triads with Christmas balls, while at Anagram our mission is to form 50 words related to Christmas.

Until today, 37,353 Children's wishes fulfilled 41 construction works and supporting initiatives for NGOs across Greece.

Results

In 2020, 245,775 people downloaded the app, which due to the pandemic, was consistently updated with fun games, competitions and useful nutritional and psychological content to support people during the difficult times of the lockdown.

From 2014 until today, within the framework of its Corporate Responsibility program, OPAP has completed 64% of the renovation of the two largest pediatric hospitals in the country. A total of 24 renovation projects have been delivered, including 18 nursing units, with a total area of 11,540 square meters and a capacity of 415 beds.

Impact

The application hosted the "Wishing Ornaments" initiative providing thousands of people the opportunity to give back to children in need all from the safety of their homes.

Since 2014, OPAP has been standing beside NGOs across Greece, which support children in need, through the "Wishing Ornaments" initiative. The aim of this initiative is to help contribute to a greater social effort, through the fulfillment of children's wishes. At the same time, OPAP implements projects that support the operation of organizations and improve the benefitting children's quality of life.

In previous years, OPAP invited children supported by the "Smile of the Child", "SOS Children's Villages" and "ELEPAP" organizations to write their wishes down on a simple piece of paper. However, due to the adverse conditions induced by the COVID-19 pandemic in 2020, the initiative was implemented only online. As such, people were invited to participate in the program and fulfill children's wishes through the "Contribution Squad" mobile app and the opapcsr.gr website.

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• The supply of heating fuel to cover the needs of "SOS Children's Villages" homes in Vari
• The supply of technological equipment for 11 housing facilities of the "Smile of the Child" organization, to support the
education and entertainment needs of children.

Success factors

Available on browsers on both computers and tablets or smartphones
- iPad app,
- Availability of the game online
- Internet access

Limitations

Available only in Greek.

Related resources

App:https://play.google.com/store/apps/details?id=gr.diadromiprosforas.android&hl=en&gl=US
Project website: www.opap.gr

Sparks

Co-funded by the
Erasmus+ Programme
of the European Union

Efficacy	★★★★★	The game includes a well-balanced combination of different game elements that effectively support the achievement of the desired learning outcomes.
Transferability	★★★★★	The combinations adopted could be transferred to multiple learning paths.
Usability	★★★★★	Excellent User Experience.
Playability	★★★★★	Excellent interactions and high-quality gameplay.
Innovation	★★★★★	The game is innovative in its ability to create relationships and connections with all stakeholders and members of the community. Less from the point of view of game design.
Inclusion	★★★★★	Its simplicity, usability, and elementary game mechanics allow anyone to play and access the platform's features.
Efficiency	★★★★★	The mechanics and dynamics of the game contributed extremely effectively to achieving the desired result, both in terms of involvement and the quality of the experience and in terms of user satisfaction.
Ecosystem Diversity	★★★★★	Available on multiple devices.

Low   High

4. Quizdom

Title	**Quizdom**
Date	2014
Authors	QUIZDOM was established as a company in April 2014 and a few months later, the first QUIZDOM game app was launched in Greece. In March 2015, the app achieved to rank #1 and get

	Featured in the app stores (Apple Store for iOS & Play Store for Android).
Geographical scope	First in Greece but today, QUIZDOM has gone international! The multi-million download app has been launched in DACH (Germany, Austria, Switzerland) and most recently in the UK.

Target groups/Beneficiaries

Quizdom targets mainly adults. The game was played by more than 2,000,000 players in over 6 countries.

Objectives

Quizdom Challenge is a trivia game, where the user can play alone, versus an opponent and/ or participate in tournaments. He can choose between several categories such as: Words, Food, History, Religion, Politics, etc. The winner is determined by the amount of correct answers. Also, the user has the ability to send his / her own questions, which will be evaluated by other users in order to be included in the game.

Quizdom is a game with knowledge questions for smartphones and tablets in which you can play online, rival with friends and other users around Greece and the world. It consists of 16 categories of questions for everyone, from Politics and Sports to Music and Celebrities. In each match, the opponents choose from two categories each and are asked to answer the same 16 questions alternately (4 per round-category). The winner is the one who answered the most correctly and in case of a tie the fastest.

Process

The players must choose the opponent. They can challenge their friends or play against random opponents.

Next must choose question categories! All are equal. They choose 2 categories and their opponent another 2. There are 19 thematic categories: from Geography and History to Celebrities and Food. And the game begins!

The game begins! The game consists of 4 rounds with 4 questions each round. Isn't it exciting?

They must answer correctly and as fast as they can, to beat their opponent. They only have 18 seconds to choose the right question!

Dynamics
- Emotions. Yes. The relevant emotions are curiosity and competition.
- Narration. No
- Progress.
- Relationships. Yes! Challenge your friends or play against random opponents. Invite your friends through social media to play the game together. Chat or meet new friends from all over Greece.
  QUIZDOM IS YOU! Send your own questions and see them in the game! Create your own groups with questions from your favorite hobbies or topics and invite other users to play.
- Restrictions.

Mechanics
- Collaboration. No
- Competition. Yes, among your friends or against random opponents.
- Challenges. Players can challenge any other player to a round, and can set up friends lists of gamers to test their skills against.
- Rewards The more questions you get correct and the faster you play, the more points you earn, which puts you higher on the global rankings (and in those against your friends). Players can challenge any other player to a round, and can set up friends lists of gamers to test their skills against.
- Retro alimentation. No.
- Luck. Yes.
- Transactions. Yes
- Turns. Yes

Components
- Avatar. No
- Collections. Yes
- Combat/Fighting. No
- Unlocking of contents. No
- Teams. No
- Social graphics. No
- Eastern eggs. No
- Insignias. Yes, NEW EXCITING TOURNAMENTS!
  Choose a Tournament! Are you cooking for General Knowledge Tournaments or themes? We have it all! Check the list daily as new Tournaments go LIVE each week.
  Answer correctly & quickly! The more correct answers you give & the faster the answers, the more points you get & go up in the ranking! You only have one chance to play, so do your best!
  Check your ranking! Complete your participation in the Tournament and see the results. How many correct answers did you give and in how much time? What position in the ranking are you in? Caution! The more players play in the Tournament, the ranking may change! Nothing has been judged yet!
  Are you among the winners? When the Tournament closes, your ranking and position are finalized. Only then do you know if you won a prize! Exciting huh?
- Time limits. Yes, there is a time limit.
- Missions. No.
- Levels. Yes
- Gifts. No
- Tutorials. No

Quizdom is a game app that offers a trivia quiz and a thousand questions! It has 4 categories that present various exciting questions, including Logo quiz, music trivia, Sports Quiz, and many more.

Quizdom Education is more than just a knowledge game! It is fun, it is social while at the same time you are learning & preparing for the National School Entrance Exams!
Students can play with questions from the course material of the Final Exams. They can choose the lessons that interest them and play endlessly with their friends and

classmates. They have fun while at the same time consolidating the knowledge without realizing it!

Results

Over 2 million registered users worldwide.
500+ Million Total games played
6 Billion Total questions answered

Impact

In Quizdom Education, students can learn and prepare for tests and exams by playing tailored quizzes against friends and fellow students. The questions are based on past and current exam syllabuses. Combining technology and entertainment, Quizdom Education aims to make learning both fun and effective by using the success factors of the original Quizdom game.

Success factors

Available on browsers on both computers and tablets or smartphones
- iPad app,
- Availability of the game online
- Internet access

Limitations

Available only in Greek, German, Russian and English.

Related resources: Project website: www.quizdom.com

Efficacy	★ ★ ★ ★ ★	The game includes a well-balanced combination of different game elements that effectively support the achievement of the desired learning outcomes.
Transferability	★ ★ ★ ★ ★	The game elements adopted could be transferred to multiple learning paths in different educational contexts.
Usability	★ ★ ★ ★ ★	Good User Experience and UI design.
Playability	★ ★ ★ ★ ★	The game is fun to play and easy to use.
Innovation	★ ★ ★ ★ ★	The game is innovative in its ability to create relationships and connections with all stakeholders and members of the community.
Inclusion	★ ★ ★ ★ ★	Quizdom is available online to all, It offers a free account.
Efficiency	★ ★ ★ ★ ★	The mechanics and dynamics of the game contributed extremely effectively to achieving the desired result, both in terms of involvement and the quality of the experience and in terms of user satisfaction.
Ecosystem Diversity	★ ★ ★ ★ ★	Available on browsers on both computers and tablets, and through iPad app.

Low   High

5. Brainy

Title	**Brainy.gr**
Date	2017
Authors	Margarita Rouva - Athanasiou
Geographical scope	National – Greece International – Greek students around the world

Partners/Stakeholders

John S. Latsis Public Benefit Foundation, Vodafone Hellas, Public –MediaMarkt, Carmen Rougeri (actress), Alekos Lidorikis (journalist), Agni Mariakaki (Psychologist, Social Researcher)

Target groups/Beneficiaries

Brainy.gr is a modern study tool, an educational platform catering to the needs of children 10 to 16 years old, focuses on improving performance and reducing study time.

Context

 In today's fast-paced world, the award-winning digital brainy.gr platform, a modern study tool for 5th and 6th graders, in all three grades of High School, is coming to change the facts in digital education.

We have been living in an unprecedented situation for months. The pandemic continues to be a major problem, which has led to radical changes in all areas of daily life. The main change is that everything is done remotely, where possible. This is also true for companies, with a large number of staff working from home. If we are talking about working parents, then often the children are at home and the lessons are now done online.

So at a time when many companies are looking for ways to support employees working remotely, Public - MediaMarkt decided to think out-of-the-box and provide a very helpful help to the company's working parents. What PMM thought, and very quickly realized, is a collaboration with the Brainy digital education platform. This initiative offers free access to the platform for parents who are part of the company's staff.

Through this benefit, working parents have another way to effectively manage their daily household chores, including the need for children to read. Every parent can dedicate the time allotted to work efficiently and be sure that the children will do their homework properly, with Brainy.

Objectives

Through a series of educational videos, the teachers of brainy.gr analyze the material of school lessons. On the platform, students will find organized in a timeline the learning units with the corresponding exercises in the book, integrated additional exercises and competitions, as well as specially designed multiple choice tests, which highlight the weaknesses of each child and the points where he should give more basis to his study. At

the same time, children are offered the daily opportunity to send as many questions as they have to the teachers of the brainy team and to receive the answers they need immediately.

Process

The Brainy.gr digital platform is aimed at elementary and high school students and helps children in their daily reading in many ways. One of these ways is the instructional videos of each module. All the concepts and important points of each lesson are explained in an understandable way, through the work of professional teachers and professors. The daily lessons are supplemented by various tests at the end of each module. Parents have constant access to their children's progress data, in order to assess their own level of knowledge and, if necessary, to support children with personalized lessons offered by the Brainy platform.

The above is even more important for children and parents, if one considers that distance education, and technology as part of education in general, is a reality that will become larger in the future. So, with the use of the Brainy platform, children remain familiar with new technologies and distance learning, something that parents definitely want.

With the help of Brainy.gr, children can complete their education in a professional way, while parents can work from home security without interruptions in the daily schedule. Both parents and children can complete their… from home obligations faster and spend their free time together, constructively, the rest of the day.

Results

Based on testimonies of parents and students, the use of the platform contributed significantly to the improvement of children's grades as the understanding and assimilation of difficult concepts of the lessons became much easier and more passable, as well as the autonomy and better planning of their study.

Characteristically, they state that brainy.gr is the answer, the solution that modern children are looking for. The graphic representation in combination with the movement that each video has, helps very effectively in the concentration of the children and arouses their interest.

They note that the platform helps but also relieves themselves from the stress of helping their children in matters that they themselves have forgotten or do not have time to deal with.

On the other hand, the children stated that the brainy is their main means in their daily reading. It does not burden them because through the platform they solve their questions in the theory that they did not understand at school while at the same time it offers them the practice in exercises and tests that they need.

Impact

Taking into account the experiences of the users themselves but also of the technological revolution that is now taking place worldwide in the field of education, brainy.gr is unquestionably a reliable solution of quality education for all children in Greece, without discrimination and geographical restrictions.

In addition, with a vision of the necessity and the right of all to knowledge, brainy.gr team implementing a comprehensive framework of our cooperation with a significant number of organizations that host and support children and families.

They provided the means and equipment, offer free access to educational platform, so that every child has a complete ability to study and support, every child has the same opportunities to conquer his own future.

Success factors

- Available across multiple devices
- Balanced combination of different game elements
- Short learning curve
- Internet access

Limitations

Available only in Greek.

Related resources: Project website: https://brainy.gr/

FINAL ASSESSMENT

Category	Rating	Description
Efficacy	★★★★★	The platform has proved to be highly effective because it managed to combine education and fun by reducing the social exclusion faced by children and families of vulnerable groups
Transferability	★★★★★	With a vision of the necessity and the right of all to knowledge, the platform authors implement a comprehensive framework of cooperation with a significant number of organizations that host and support children and families.*
Usability	★★★★★	The digital platform Brainy.gr is very simple to use, both for teachers and students, as the digital environment has been specially designed to facilitate learning.
Playability	★★★★★	The platform is very simple and fun for users.It does not require technical knowledge.
Innovation	★★★★★	An innovative platform designed to offer to students with special school knowledge experience though videos, games and smart quizzes.
Inclusion	★★★★★	Brainy is a new, modern approach in the field of education and learning. Its philosophy is that every child can become excellent, as long as they are given the appropriate environment for that environment to "bloom".
Efficiency	★★★★★	Silver Award in Digital Learning at Educational Leaders Awards 2019
Ecosystem Diversity	★★★★★	Available on multiple devices.

Low   High

*Some of the organisations involved:
- "Chamogelo tou Paidiou"
- "Kivotos tou Kosmou"
- "Childrn Villages SOS"
- "Filoi tou paidiou"
- Chatzikosta Foundation
- Chatzikiriakio Foundation

6. Connect your city

Title	Connect your city
Date	2020
Authors	Saimous Massimo, Vasilis Rafail, Giannis Roussos, Christoforos Aslanov, Michail Sarikos.
Geographical scope	Local: Athens

Partners/Stakeholders

CONNECT YOUR CITY is the first integrated Youth Centre in Greece, which operates at the neighbourhood level. It is an open meeting place for young people aged 16 to 30, who could make creative use of their free time, to develop their skills – through educational programs – and finally to have the opportunity to enter the labour market, through the Job Club. The authors submitted the app to the European Commission's EUvsVirus Hackathon

Target groups/Beneficiaries

Young people 16-30, NEETs.

Context

The Connect you City application collects activities and volunteering opportunities from collaborating organisations, listing them. Users can select the activity that interests them, accept the challenge and proceed to participate. While participating, they collect evidence, either a couple of photos or a video. Then, they upload their evidence on the app and they are awarded a predetermined amount of points. Challenge rounds last for 3-4 weeks. At the end of each round, those that have accumulated the most points are awarded.

Objectives

Through a process of gamification of participation, Connect you City app improves the visibility of local actions, raises awareness on the topics tackled by each individual action and engages more young people to volunteering. CONNECT YOUR CITY is an application that links the needs of vulnerable social groups with the active citizens who are willing to offer their skills and services through the pandemic and young people who also want to help but they don't know how/where, aiming at making the civil society the first line of social assistance during COVID-19 times and forward.

Process

Each young person can develop, design, organize and implement their own ideas, while at the same time enjoying and participating in the ideas of others, further enhancing the idea of teamwork, collaboration, innovation and open dialogue. Both volunteers and beneficiaries can sign up in the application using different forms. Beneficiaries who are not familiar or unable to use a cellphone can also submit their requests by calling the Support-Line of CONNECT YOUR CITY or be submitted directly by the Social Service of the Municipality on behalf of the beneficiary. When a beneficiary submits an anonymous request through the application, it will show its location on the map and it will pop-up as a notification on the phones of nearby volunteers so that they can accept it.

When a volunteer accepts a request, it has a time limit of 24 hours to fulfill it. When the request has been fulfilled, both volunteers and beneficiaries can submit comments for each other.

Volunteers get points when they complete requests and with the gathering of points, they get awards from collaborating businesses of the municipality. The awards can include discounts on products or services for the top players, or they can also give out selected prizes to the top 3-5 players. This creates a circle of benefits for all the involved people and stakeholders. Citizens who want to offer support can do it via the organized process of the application and local businesses also contribute to the resolution of the humanitarian crisis caused by the COVID-19 while at the same time they establish marketing value through the gifts and awards donated to the top volunteers.

Results

The first semester of 2021:
- 5708 total interventions
- 1148 visits for clothing delivery
- 317 visits to purchase products
- 470 servings of food
- 80 escorts for social issues
- 125 psychological support interventions
- 181 interventions to resolve social issues
- 928 home visits for company & creative work
- 385 kilos of clothing & linen
- 138 actions of processing issues (DEKO, ELTA)
- 299 visits for personal hygiene & home improvement
- 211 receipts & deliveries of medications

Impact

More than 1000 individual users have downloaded the app CONNECT YOUR CITY app will remain as a tool for managing volunteers in difficult situations, including also natural disasters such as fires, floods etc. As mentioned, the application aims at connecting all municipalities from all European countries with a call to action for their volunteers, improving the quality of life of citizens in need, and promoting a European, fun aspect of volunteering.

Success factors

All actions that create, participate and implement members and volunteers reflect the values that govern Connect Your City. Through creative play and non-formal learning, the feeling of offering, responsibility, creativity, teamwork, flexibility, equality, tolerance and honesty is promoted.

Users register in the application (available for android and very soon for IOS) and they can find a wide variety of actions that they can implement.

They look for the action that attracts their interest, they "accept" it and at the same time, it is activated in their account.

Once they have done the action, they send a photo or link from the post on social media as proof.

Immediately after, the administrators of the application examine the evidence and judge whether the action has been completed. When the user successfully completes an action, they obtain certain points which they collect and can redeem in gifts and privileges from the collaborating bodies.

Related resources: http://www.connectathens.gr/

Efficacy	★★★★★ The app has proved to be highly effective to produce the desired outcomes.
Transferability	★★★★★ When the application will be stable enough, other test runs will be done with municipalities in Greece, and later in the EU.
Usability	★★★★★ Simple game mechanics and the use of traditional formats contributed to obtaining excellent general usability.
Playability	★★★★★ Simple, fun to play, and intuitive. It does not require technical knowledge or special rules to be acquired.
Innovation	★★★★★ The app enabled the civil society to be the first line of social assistance during COVID-19 pandemic.
Inclusion	★★★★★ Its simplicity, usability, and elementary game mechanics allow anyone to play and access the app's features.
Efficiency	★★★★★ The mechanics and dynamics of the game contributed extremely effectively to achieving the desired result, both in terms of involvement and the quality of the experience and in terms of user satisfaction.
Ecosystem Diversity	★★★★★ The application can be used on any type of device or browser without compromising and/or limiting in any way the user experience.

Low   High

7. Acropolis Museum kids

Title	**Acropolis Museum Kids**
Date	2019–today
Authors	Acropolis Museum
Geographical scope	Local - Athens

Partners/Stakeholders

Technical partners:
- Eternal Optimists;
- MainSys.

Target groups/Beneficiaries

Children aged 6-12 years.

Context

As a result of the COVID-19 virus, schools and daycares around the world have closed their doors, and unprecedented numbers of children are learning from home. Museums are helping to fill the gaps, offering an abundance of virtual programming and educational resources to support home-based learning and play. Some standard forms have emerged: downloadable line-drawing coloring pages, workshops and instructions on how to create imitative art and craft inspired by specific (adult) artists or artworks, sing-alongs led by adult musicians, and scientific demonstrations conducted by adult scientists.

While these online materials for children are vast, they largely offer activities and resources for children, designed by adults. This approach is certainly not without value, but it reproduces a traditional top-down approach of interacting with children, a power dynamic in which adults hold most of the authority and set the terms of engagement. It misses an opportunity to explore content and programming by and with children, who may have unique contributions to make drawing from their own expertise, capabilities, and capacity for creativity and innovation. While the Acropolis Museum provides organized school programs and other educational programs, the Acropolis Museum Kids aimed to provide a website with activities that encourage children to actively engage with the Museum as a whole.

Objectives

The Acropolis Museum Kids aims to encourage children to actively engage with the Museu: its exhibits, the archaeological site of the Acropolis from which the exhibits originate, its services and its back of house operations, that is, the total experience. It gives the opportunity to discover a selection of ancient Greek-themed games, videos, and activities, to challenge kids' memory, or join an archaeological space mission trying to save the memory of ancient monuments. The website makes learning fun and accessible through games, a gallery of pictures and videos and even ready-made activities like colouring-in and ancient cooking lessons.

Process

Only a hop and a jump from the Acropolis, where an ancient Athenian neighborhood once bustled, stands the Acropolis Museum! Contemporary, bright and full of light it invites you to discover its famous exhibits, myths and stories. Now kids can enter its digital world and immerse themselves in the fun and games. The website aims to attract children from all over the world, using fun and informative activities and games, some of which are digital and others which can be done offline at home. We aim both to support creativity as well as strengthen our relationship with this young audience through the Site. Through the children we hope that we can engage parents and guardians too!

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When a child's work is submitted to the Site's Gallery, the Museum collects some information about the child or parents and/or guardians. We do this to improve the site by better understanding how you or your child is using the Site.

Results

Engaging children as participants in online museum programming is not the only area of growth, however. Creative and inspiring prompts, models, and instructions abound, but what will become of the profusion of artistic representations, reflections, and insightful interpretations of the pandemic that virtual museum programming has prompted? While several museums have announced new collecting initiatives that aim to document and preserve the pandemic as it unfolds in real time, few have explicitly solicited contributions from children and youth that have the capacity to reflect their unique experiences of the pandemic. Recognizing the value of children's perspectives, experiences, material culture, and cultural production is critical for a new critical children's museology to take root.

Impact

Children are keen observers, skilled innovators, creative producers, full-time learners, and important contributors to their households and communities. Taking them seriously by engaging with them as contributors of content and programming will provide a richer, more insightful archive for future generations. It will also enliven and improve online materials, while promoting diversity and inclusion in museum institutions and society at large. Such a move has the potential to radically transform museums by helping to further democratize all aspects of museum content and practice. The time for children to join the ranks of museum communities as valued contributors to content and programming is past due.

Success factors

While these online materials for children are vast, they largely offer activities and resources for children, designed by adults. This approach is certainly not without value, but it reproduces a traditional top-down approach of interacting with children, a power dynamic in which adults hold most of the authority and set the terms of engagement. It misses an opportunity to explore content and programming by and with children, who may have unique contributions to make drawing from their own expertise, capabilities, and capacity for creativity and innovation.

Related resources: https://acropolismuseumkids.gr/en/

Efficacy	★★★★★	The platform has proved highly effective to produce the desired outcomes.
Transferability	★★★★	Tailoring the complexity of the dynamics and mechanics adopted, the proposed games could be transferred to other educational contexts and for different target groups.
Usability	★★★★★	The core of the website's usability is clarity. The games proposed are simple and easy to use.
Playability	★★★★★	The game-based learning activities offered are extremely simple, fun to play, and intuitive.
Innovation	★★★★★	The games proposed make learning fun and accessible, engaging kids in discovering ancient Greek.
Inclusion	★★★★★	Its simplicity, usability, and elementary game mechanics allow anyone to play and access the app's features.
Efficiency	★★★★★	The mechanics and dynamics of the games contributed extremely effectively to achieving the desired results
Ecosystem Diversity	★★★★★	The website is accessible on any type of device or browser without compromising and/or limiting in any way the user experience.

Low   High

8. Robotonio

Title	**Robotonio**
Date	2016
Author	Robotonio
Geographical scope	Local - Athens.

Partners/Stakeholders

ROBOTONIO aspires to turn play into learning and students' imagination into creativity, using the most modern educational tools, developed by pioneers in the field of educational robotics companies (Lego Education, Arduino) and guided educational programs and practices from the most renowned universities and institutions such as MIT (MediaLab), Carnegie Mellon (Robotics Academy) and NASA (Robotics Education Projects). The vision is to expand the potential of children by unleashing their creativity, enhancing their knowledge and challenging them to solve problems by inventing their own solutions, through a fun and entertaining activity. Robotonio has secured collaborations with internationally recognized bodies, which will certify the students' robotics programming skills.

Target groups/Beneficiaries

4-20 years old

Context

The "Internet of Things" has already conquered the market. The largest investments internationally are made in the field of artificial intelligence. European programs award startups active in the field of robotics and new technologies. New technologies, such as quantum processors, which in a few years will jump from research to the market, will launch the capabilities of computers to levels we cannot even imagine today. The digital world in which today's children grow up is directly related to an object, Programming, which is not a "specialized" space that concerns only programmers. The principles that govern it, the troubleshooting procedures, the design of the algorithms and the familiarization of the students with the basis of today's digital reality, contribute to the development of skills such as critical thinking, creative imagination, problem solving, error exploitation, the empowerment and enhancement of the image of themselves. Students also become familiar with a more methodical way of thinking, analyzing in smaller steps the way to solve different problems and generally any kind of challenge they are asked to face. Trial and error are possibilities given to them when they try to "program" through the game, and this greatly enhances the ability to develop and devise alternative solutions.

Objectives

Robotonio aims at developing students' digital skills and soft skills through programming.

Process

Participation - Collaboration - Fun is the triptych of Robotonio's philosophy. The lessons are designed so that the game is a motivation for participation, knowledge and cooperation that will help students have fun in the classroom. Self-propelled vehicles, self-propelled dinosaurs, SUMO wrestling robots, funny and creative computer games, math puzzles, smart home models, each educational program has its own ways to spark students' interest and leave the classroom victorious in every way, whether we are talking about knowledge or the game.

The third axis that composes Robotonio's philosophy is the standardization and documentation of the programs. To ensure and enhance the value of their educational work, the authors have adapted the programs to internationally recognized educational standards, mainly from America, where millions of dollars are invested each year in STEAM education. At the same time, Robotonio has secured collaborations with internationally recognized bodies, which will certify the students. Students who have completed two years of training in a robotics training program with one of the most popular platforms in the world, EV3, will take an exam conducted by Carnegie Mellon* at school, and the winners will be certified by the University in terms of their knowledge in programming and will be registered without a time limit in the electronic database of its certified students. At the next level, as the students move through the visual programming stage, lessons are fully adapted to the text-based Python programming language. Robotics with EV3, programming for computer game development, Internet of Things, all adapted to be supported in that language. The reason is that students who follow a related program will be able to participate in exams, in order to be certified by the Python Institute** itself, in terms of their knowledge in programming.

* Carnegie Mellon University of the USA is ranked every year in the top 25 universities in the world, for its approach to education and research. His certifications are the most recognized around the world, especially in the field of information technology and engineering.
** Python is one of the most popular programming languages in the world, adopted and adapted for all scientific and professional fields, from financial services and medicine to digital games. The goal of the Python Institute is to provide every Python programmer and prospective programmer with the skills they need to be able to perform at a more advanced and professional level, following best programming practices.

Results

Robotonio proved to increase students' motivation and engagement in learning and effectively support students in developing their soft skills, and their knowledge and competencies related to coding, AI and robotics.

Impact

AI has become an increasingly common presence in robotic solutions, introducing flexibility and learning capabilities in previously rigid applications. It's easy to get students' attention with robots. Actually teaching students how to code with robotics takes a bit more work, but rewards students with skill-building in logic, problem-solving, systems thinking, and more. Not only will students be introduced to true interdisciplinary STEM learning, but they'll also gain valuable lessons in teamwork and collaboration. Robotics can even help students with autism learn about social cues and develop communication skills.

Sparks

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Success factors

Within the next seven to ten years, virtual reality will also be widely used in the education process, as they will be inexpensive and provide an immersive experience that can help students to quickly and effectively learn almost anything that can be demonstrated.

Related resources: www.robotonio.gr

FINAL ASSESSMENT

Category	Rating	Description
Efficacy	★★★★★	Robotonio has proved highly effective to produce the desired outcomes.
Transferability	★★★★★	Robotonio could be tailored to other educational contexts and for different target groups.
Playability	★★★★★	Balanced combinations of simple game mechanics and dynamics for
Innovation	★★★★★	Robotonio uses the most modern educational tools, developed by pioneers in the field of educational robotics companies, and guided educational practices by the most renowned universities
Inclusion	★★★★★	Everyone is enabled to participate, collaborate and have fun.
Efficiency	★★★★★	The lessons are designed so that the game is a motivation for participation, knowledge and cooperation that will help students have fun in the classroom.
Ecosystem Diversity	★★★★★	Robotonio offers a wide variety of offline and online experiences.

Low   High

Surveys Analysis

An online questionnaire was designed **to validate the best practices** collected in game-based learning in the six European countries involved: Spain, Italy, Greece, Romania, Portugal, and Poland. The survey aimed to gather the VET experts' perspectives on the innovative experiences, game dynamics, mechanics, and components researched by the Sparks consortium.

1. Methodology

.
The research work followed three main phases:

1. Design of the quantitative research tool;
2. Fieldwork;
3. Data Analysis.

Phase I: Design of the quantitative research tool

The chosen method was categorisation, creating blocks linked to main general research questions and developing more specific research questions inside each block. The development of the survey as a research tool for validation was implemented as follows:

1. all the Best Practices collected by the consortium were reviewed;
2. a log was created to perform an in-depth comparative analysis of the key elements of the practices collected;
3. research questions related to the main points that needed validation from the best practices were developed;
4. the survey questions were developed, based on a 5-point Riker scale, for each research question determined;
5. the survey questions were finally validated by the consortium.

Phase II: Fieldwork

Once elaborated, the online survey was disseminated by the partners. In Greece, 41 responses were collected.

Phase III: Data Analysis

1) *Recollection* of the data obtained with the survey.
2) *Disposition* of the data. In this Report, the responses obtained were organised to be further analysed in the Final Report of the research, comparing the results of the six countries of the consortium.
3) *Analysis* of the data.
4) Drawing *conclusions* based on the results of data interpretation.

Phase IV: Final Document elaboration

The last phase of our comparative research is developed in the Final Report, where the consortium analyses the results of the desk research in Best Practices in GBL together with the results of the validation survey performed and the results on the Focus Groups research the needs in VET.

2. Survey Results obtained in Greece

The first block of questions aims at obtaining a **general picture of the target group of educators**. It includes essential information, such as:
- the type of entity the expert belongs to, including initial or continuous vocational center/provider, adult education center/provider, youth center, non-governmental organisation or foundation and other VET providers;
- the job position occupied, including teacher, coach or mentor, trainer, coordinator, administrative staff, management role, social educator or worker and other.

41	06:31
Responses	Average Time for completion

Type of **entities** the educators work for:
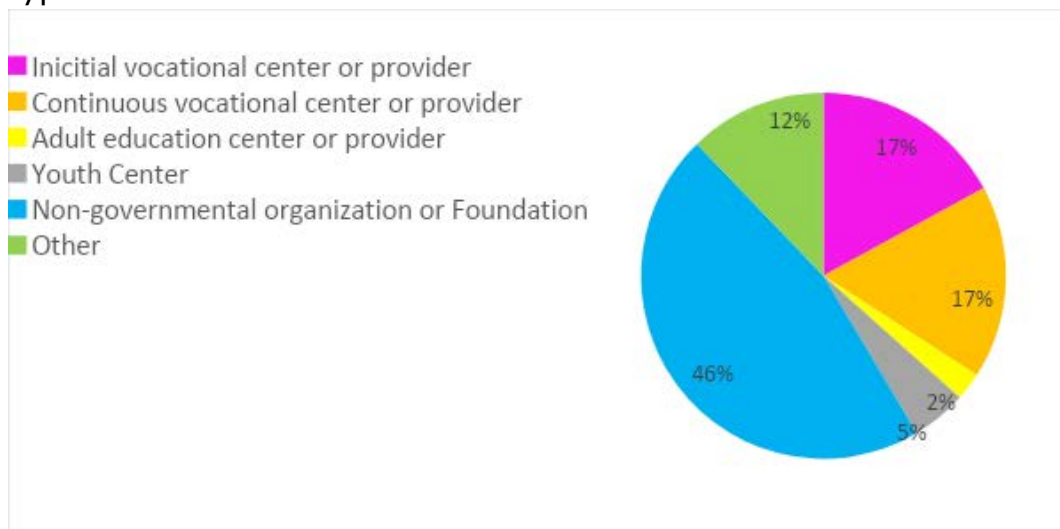
The different **job positions** occupied by the people surveyed:
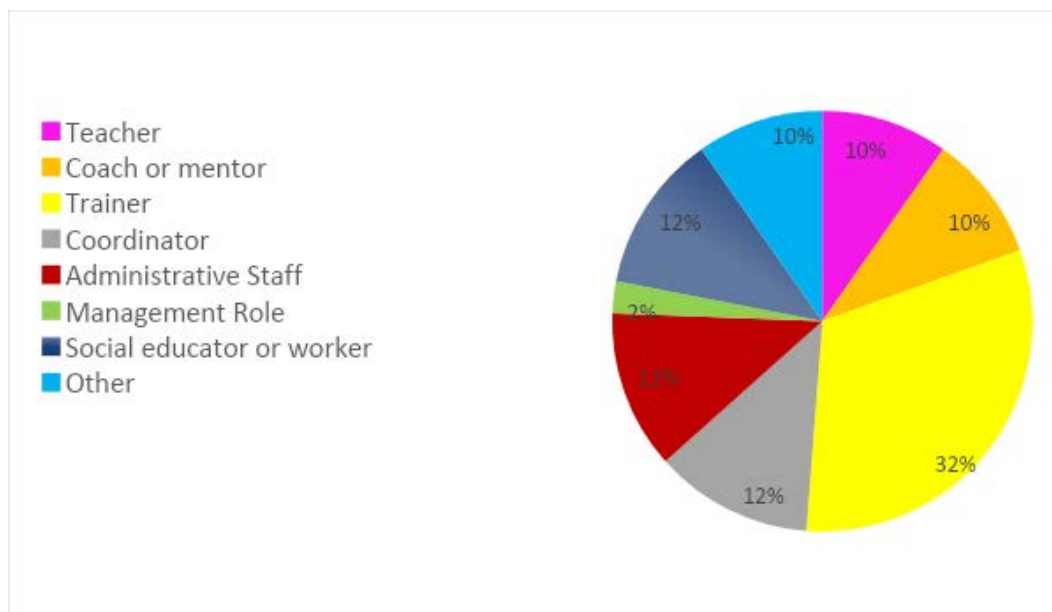
The following question belong to the second block that responds to the objective of achieving a general picture of the overall level of **competencies of VET experts** in digital skills and ICT tools and platforms, and more specifically their level of competencies in **game-based learning**.

3.   I think that incorporating ICT tools and platforms into teaching pedagogies is beneficial for teachers and students.
4,6   Average
4.   I feel confident that the competencies of educators (including myself) in digital competencies is sufficient to incorporate ICTs into teaching.
3.5   Average
5.   I often implement game-based elements in my teaching/training to assess students or increasing their involvement during classes.
3.56 Average
6.   I do not use gamification into teaching, but I would like to.
3.26 Average

The objective of the third block of questions is to **validate the best practices collected** by the following set of questions about the game-based elements that were found as the key to a successful game-based learning experience.

7.   Stablishing the objective of the game and the rules previously and explaining them to students before starting the experience.
4,6 Average
8.   Defining previously the possible roles of users in the experience and, if relevant, including the possibility of having different roles: active y passive (observer); leader and followers.
4,27 Average
9.   Using platforms and digital tools for the gamification experiences that are commonly used and recognizable by teachers

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4,1 Average
10. Including an attractive narrative and, if possible, maintaining the storyline defined during the game and till its finalization
4,6 Average
11. Stablishing clear levels in the game experience that gradually became more difficult, with the aim of continuing to challenge users.
4,24 Average
12. Including the possibility of feedback between students and educators during the game, specially at the end of a challenge or level.
4,27 Average
13. Including challenges and tasks that must be done individually and in teams, to foster both teamwork and autonomous work.
4,5 Average
14. Adding the option for the user and the educator of viewing the progress during the game or gamify experience since the beginning (i.e., using avatars or profiles to identify each user and show their progress)
4,45 Average
15. Including access to educational material or additional information in the hosting platform of the experience (i.e., videos, tutorials, curricula, etc.)
4,54 Average
16. Including graphics, visual elements, music, and videos that are stimulant and attractive for the students.
4, 7 Average
17. If the objective of the experience requires it, include simulation scenarios (i.e., job interviews) to foster learning by doing.
4, 67 Average
18. If the objective of the experience is to evaluate students, previously stablish the criteria and make the students aware of those criteria and objectives chosen.
4,4 Average
19. Stablish a reward system (i.e., Points system, ranking, badges, insignias, etc.) that motivates students, but also rewards different qualities such as behavioral attitudes (curiosity, helping other students, devoting more time)
4, 17 Average

The last block constitutes an **open-ended question** to allow the surveyed person to make a remark, share an experience or state an opinion about Game-Based Learning.

20. Would you like to share any past or present experience with Game-Based learning techniques, tools, or methodologies? You can do it below:
9 of the total of 41 Greek education providers surveyed answered.

COLLECTION OF COMMENTS

I have used kahoot which made the VET experience very interesting and fun.
I have stimulated a job interview as well as communication activities.
Both Miro and Microsoft Powerpoint are quite easy tools to use. Game-based learning can be done with them.
Also of interest are some tailor-made tools, in order to satisfy the educational objectives of a project / initiative / workshop
A typical example is the MSP Challenge https://www.mspchallenge.info/, through which the understanding of the process of Marine Spatial Planning is sought.
I have no experience in experiential learning.
I teach labor law which is difficult to do in the form of a game. However, it would be interesting. I do not know if there is a learning platform for this
Learning social skills through cards specially adapted for children as well as representation in real conditions (interactive)
I am not a trainer, but it is administratively difficult to apply games in vocational training.

3. Final Conclusions

In conclusion, both the average competencies in ICT and game-based learning of Greek educators are sufficient, and they show a common appreciation for the benefits of applying game elements to teaching. The validation by experts in education of the best practices collected by the SPARKS consortium has been extremely successful based in the responses, all the mechanics, dynamics, components, and pedagogical techniques incorporated in the survey have received a high number in the 1 to 5 scale proposed, all the elements of the best practices identify have received a punctuation higher than 4.

Focus Groups Analysis

Each partner organisation implemented a Focus Group with a minimum of 24 participants: 12 educators and 12 students in the field of Vocational Education and Training.

1. Methodology

A common questioning route was developed for the implementation of the focus group. Each partner implemented its focus groups at the local level following the common questions outlined by the project team to reach the goals of the qualitative analysis.

The questions aimed to gather the target groups' needs, such as pains in their current e-learning practices and jobs-to-be-done, possible gains deriving from the platform, and the features and game elements they would find more effective and engaging in Game-based Learning Programs.

A moderator and an observer were involved in the implementation of the activity.

2. Report of the Focus Groups. Analysis and comments

2.1. Focus Group 1: Trainers&Students

PARTNER ORGANIZATION	KEAN
DATE AND HOUR 28 September 2021, H 16.00 - 17.00	**PLACE** Google Meet
FORMAT: Online	
PARTICIPANTS: VET students	**NUMBER OF PARTICIPANTS:10**
MODERATOR: Raina Melissinou	**OBSERVER:** Fenia Pistofidou

Composition of the group
In order the sample to be representative, we chose VET trainers and VET experts to cover all types of vocational education and training.   **No. 5 educators of VET centres and nonprofit organizations offering the qualification and professional specialization courses**

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- Gender: 4 females and 1 male
- Age: 26-41 years old.

Stergios has a long experience in adult education and specifically teaches Greek and English to refugees and migrants in accommodation structures. **Aida** is originally from Algeria but has been in Greece for 10 years and works as an adult educator. **Georgia** has been involved in adult education for several years, training individuals, professionals, and volunteer groups in mental health first aid to manage stress and enhance mental resilience. **Iro** has been involved as adult education for vulnerable social groups. **Anthi** is a psychologist and deals with groups coordination in mental health seminars

No. 5 students

- Gender: 4 females and 1 male.
- Age: 21- 48 years old.

In order to ensure that our sample is representative for our research, we have included participants of all ages and all subjects in the group of trainees. Specifically, **Katerina**, 48, has been working for years in public relations companies and she has attended numerous seminars and training related to marketing and sales. **Athena** is 26 years old and has participated in several environmentally related education programmes and trainings. **Mirtali**, 28, works in the financial sector and has therefore attended seminars and training related to the financial field. **Nikos**, 30 years old, also works in the financial sector and he has attended several trainings related to the accounting and finances sector. **Margarita** is a university student who has attended many VET seminars.

Q1	**1.1.** Do you have any **experience** with **gamification** and **game-based learning**?
	1.2. What **positive and negative aspects** did you realize during these experiences?
COMMON RESPONSES	

Most educators had experienced only on face-to-face training, however in the last two years and due to Covid restrictive measures imposed, they have been forced to continue teaching online.

Asterios, who deals with migrants and refugees, told us that he needs gamification, not only because he believes in its advantages; but mainly because it can help remove the language barriers that his students face. However, he pointed out that there are few or very few applications that he has discovered himself and that he has the need at some point to attend as training on gamification.

Aida seemed quite sceptical about the benefits of gamification in terms of student attention. In particular, she said that "new technology can easily function as entertainment and less as a learning tool." **Georgia** told us that her

own training includes games such as role-playing games, debates and more. However, she is not familiar at all with the part of digital games. Although, she has expressed the will to learn how to adapt her lessons in digital gamification.

Iro shared with us her experience as an educator before and after the pandemic. She told us that she had to adapt her lessons to a digital environment and for this reason, she wasted many hours to have the same quality that she sought in her face-to-face lessons. She also believes that educators should have more digital gamification tools at their disposal and that it would be right for educators themselves to take the time to train in this.

Anthi said that she would like to have digital tools that will make the trainees feel the warmth and intimacy that is missing from the online lessons.

Katerina, 48, a marketing executive, told us that the online seminars she has attended over the last two years were the most boring and the games they included were mostly quizzes (like Kahoot!). **Mirtali** told us that she avoids participating in seminars that are done online because her last experiences were not good. **Athena** told us that she would choose to learn a foreign language through an application.

All the participants had experience with gamification, at least with basic applications of game mechanics into their education or training path. During the discussion, the educators and the students mentioned the impact that the pandemic had on their educational lives. Most of the participants had never experienced gamification before the pandemic.

COMMON RESPONSES

Positive aspects

All the participants were positive about their experiences with gamification so far. Some of the positive aspects they are mentioned are:

- More fun and less boring lessons;
- More helpful for people with specific learning disabilities;
- The gamification makes the students feel positive about the results and gives them the motivation to try harder

Negative aspects

Only a few participants mentioned some second thoughts about gamification:

- sometimes games can be a source of distraction
- needs certain digital skills and time to prepare an activity.

	Noteworthy Individual Responses and Ideas:
	«I have witnessed how interesting for learners a class might be, and the effectiveness of this tool to facilitate the teaching and learning processes. GBL bridges the gap between generations (those of teachers and students) and introduces young learners to emerging technologies. Concerning the negative impacts of GBL, I have personally experienced the difficulties creating games and the extent to which it can be a source of distraction within the class».

	Iro Trainer
	«During this method, the lessons can be more fun instead of sitting behind a desk and listening to someone talk, it creates healthy competition, develops fast strategic thinking and problem-solving skills, promotes teamwork and develops communication skills».
	Athina Student

Q2	**2.1.** In general, do you **appreciate** gamification and game-based learning experiences? Do you think games add a positive **input to learning**?
	2.2. How, in your opinion, gamification and games can enhance learning?

<div align="center">COMMON RESPONSES</div>

2.1 The majority of the participants shared the thought that «if the Universities and the other training centres were more friendly to the gamification and the game-based learning programs, the students would be happier to participate.

2.2 The students that participated in the focus group, stated that gamification makes learners feel like they're part of a team or community on their e-learning journey, fostering feelings of loyalty and belonging.

How gamification and games can enhance learning:
- Increased motivation
- Make learning more fun and interactive
- Self-actualisation and pleasure
- Accomplishing a difficult task
- Everyone feels more involved in the learning activity and perceive it as easier to retain new concepts
- Offers real-time feedback

Noteworthy Individual Responses and Ideas:

«Gamification makes the everyday educational routine more vivid, makes the different generations to meet in a new point, helps to improve at the same time various skills».

Stergios Trainer

«It can foster young learners' engagement with school, encourage their motivation for active participation and promote social interaction through play. Students learn how to self-regulate their emotions and how to work alongside schoolmates toward a goal».

Georgia Trainer

Q3	What do you think are the keys to enhance and improve gamified or game-based learning experiences in VET centres?

<div align="center">COMMON RESPONSES</div>

- Game-based learning is not very widespread in VET centres.
- VET teachers are willing to use game scenarios and ideas in everyday teaching if they recognize these as a valuable resource for teaching and can transfer these into their own teaching concepts.
- Qualification measures are required for VET teachers, with which the modes of action and design recommendations for game elements in the classroom are demonstrated and contextualized.
- The evolution of online gaming is experienced as an evasive experience of discussion and exchange.
- There is a need for more sustained use of digital in education and training.

NOTEWORTHY INDIVIDUAL RESPONSES AND IDEAS

«Gamification provides the right tactics to make learning and performing on the job more fun and engaging and, therefore, ultimately efficient and effective».

Anthi VET teacher

Q4	**4.1** Which digital tools for e-learning or distance learning do you have access to/know of?
	4.2 Do you believe you have the necessary digital skills to use these tools?
	4.3. Do you believe you need more support to use digital tools?

COMMON RESPONSES

- Due to the COVID-19 pandemic, online learning has been adopted in all stages of education. This sudden change from traditional learning to 100% online learning may affect students' learning effectiveness, especially in experimental courses.
- All of the participants know how to:
  - connect with,
  - comment on and discuss things with others,
  - through social networking, emailing and online messaging
  - find, create or share interesting photos, videos and articles
  - join or follow interest groups
  - play online games
  - learn more about topics that interest them
  - participate in online meetings on Webex, Zoom, Microsoft Teams and Google Meet
  - know how to upload and share files and make a presentation online.
- Even that all of them feel confident about their basic digital skills, they express the need for more education and support in the field.

NOTEWORTHY INDIVIDUAL RESPONSES AND IDEAS

> «It's important to remember that, just as users we need to have boundaries and rules for offline behaviour, and the guidance and morals to make good decisions. We also need these things to protect us when we are online».
>
> Iro Teacher

Q5	What could we do to make Sparks' gamified learning experiences attractive for students like you?

COMMON RESPONSES

During the focus group, we discussed the ways that we could make the Sparks' gamified learning experiences attractive:

1. Easy instructions to learn
2. Innovative scenarios
3. Creative gifts to the users
4. Points to be accumulated easily
5. Well-timed responses
6. Quick behaviors
7. Team building

2.2. Focus Group 2-Trainers&Students

PARTNER ORGANIZATION	KEAN
DATE AND HOUR 28 September 2021, H 17.00 – 18.30	**PLACE** Google Meet
FORMAT: Online	
PARTICIPANTS: VET students	**NUMBER OF PARTICIPANTS: 8**
MODERATOR: Raina Melissinou	**OBSERVER:** Fenia Pistofidou

Composition of the group

For the sample to be representative, we chose VET trainers and VET experts to cover all types of vocational education and training.

No. 5 educators of VET centres and nonprofit organizations offering the qualification and professional specialization courses
- Gender: 3 females and 2 male
- Age: 26-64 years old.

![Sparks logo]

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For the sample to be representative, we chose VET trainers and VET experts to cover all types of vocational education and training. **Mary** has been working as an adult educator for the last 20 years and has taught training and seminars in large organisations in Greece and in multinational companies. **Dimitris B.** has years of experience in adult education related to environmental education and training. **Smaro** has extensive experience in adult education in cultural and artistic projects. **Dimitris P.** teaches History of Religions in seminars conducted at the University of Athens. **Anastasia** has been teaching English to adults for years.

No. 3 students
- Gender: 2 females and 1 male.
- Age: 21- 48 years old.

We tried to have representatives of all ages and all subjects in the group of trainees for the sample of our research to be representative. **Anna** is a pedagogue and has attended seminars about toddlers training. **Katerina** is 42 years old; she has been working for several years as a bank director and therefore has attended training related to both the banking systems and customer service. **Alexis** is 20 years old, an agricultural student and has attended training and seminars on his subject.

| Q1 | **1.1.** Do you have any **experience** with **gamification** and **game-based learning**? |
| | **1.2.** What **positive and negative aspects** did you realize during these experiences? |

COMMON RESPONSES

At the beginning of the discussion, all participants shared their experiences so far in adult education either as educators or experts or as trainees.
Specifically, **Mary**, who has years of experience in seminars and training of executives in companies and organisations, told us that she needed a lot of personal research and study to adapt her training to become digital. She confessed that she tries to make a large part of her education game-centric and that is why she has referred to online tools and platforms abroad and she has adapted them to meet her own teaching needs. She also confessed that each time she adapts the games according to the profile of the students she meets in the classroom or on the platform. **Dimitris P.**, who teaches the history of religions, told us that he never managed to include game-centred learning in his teaching. He prefers classical presentations, without the use of audio-visual material, whether the lesson is done in the classroom or online. **Dimitris B.** declared from the beginning a fan of new technologies and gamification. He said that with these tools he has managed to make his lesson more interactive and more enjoyable. He said that in our country there is not a large variety of digital gamification tools and expressed interest in learning more about the European project Sparks and the digital platform that is to be created.

Anastasia, who was the youngest adult educator in the focus group, expressed the opinion that for her there is no way for distance education to be as enjoyable and effective as face to face.

Alexis, the youngest of the group, told us that he himself through games has gained a lot of knowledge that he would not have acquired otherwise. Specifically, he mentioned that from one online game he learned geography and from another he learned the biography of Marie Curie. **Katerina**, the bank manager, stressed how boring many seminars she has attended were and that she is now negatively biased towards lifelong learning, so she avoids participating. **Anna** expressed concern that her own object could be adapted to digital gamification applications but said she was willing to try it.

COMMON RESPONSES

Positive aspects
All the participants were positive about their experiences with gamification so far. Some of the positive aspects they are mentioned are:
- Competition among the participants
- Easily access information to inform and educate themselves
- Develop supportive relationships
- Self-expression
- Being involved in diverse communities
- More fun
- The lessons aren't boring

Negative aspects
Only a few participants mentioned some second thoughts about gamification:
- Cyberbullying and trolling danger;
- Students spent too much time using technology and not on face-to-face education, which can create barriers and contribute to a sense of isolation;
- Other online users may try to form inappropriate relationships with young people.

	Noteworthy Individual Responses and Ideas:
	«The positive aspects of game-based learning is that you can learn through an innovative and interactive way, and the negative aspects are that the content some time is very specific so it cannot cover all diverse case studies in intercultural understanding and diversity». Smaro Trainer *«Gamification has been shown to be tremendously effective. Gamification works for the following reasons: Games play into basic needs (autonomy, value, competence etc.)».* Anna Student

Q2	**2.1.** In general, do you **appreciate** gamification and game-based learning experiences? Do you think games add a positive **input to learning**?
	2.2. How, in your opinion, gamification and games can enhance learning?

COMMON RESPONSES

2.1 All the participants appreciate gamification and game-based learning experiences. They believe that using games in teaching can help increase student participation, foster social and emotional learning, and motivate students to take risks.

2.2 The participants in the focus group suggest that «playing games in the classroom can increase overall motivation. Students become more motivated to learn, pay attention, and participate in-class activities. They can also be a great classroom management tool, helping to motivate a whole class».

How gamification and games can enhance learning:
- It Improves Problem-Solving & Strategic Thinking
- It Expands Memory Capacity
- It Helps people who Struggle with Attention Disorders
- Make learning more fun and interactive
- Games are a far less stressful way for students to demonstrate their knowledge, skill, and understanding of a topic.

Noteworthy Individual Responses and Ideas:

«One study of the popular multiple-choice quiz game Kahoot found that it improved students' attitudes toward learning and boosted their academic scores».   Mary Trainer

Q3	What do you think are the keys to enhance and improve gamified or game-based learning experiences in VET centres?

COMMON RESPONSES

- Universities and VET centres don't have the knowledge to use gamification or game-based learning experiences
- VET teachers don't have the education and the support to use gamification
- Game-based learning is not very widespread in VET centres.
- The majority of VET teachers are willing to use game scenarios and ideas in everyday teaching, if they recognise these as a valuable resource for teaching and can transfer these into their teaching concepts.

- There is need for more sustained use of digital tools in education and training.

NOTEWORTHY INDIVIDUAL RESPONSES AND IDEAS

«As gamification has manifest to be an appropriate solution, firstly the existing gap between learners and teachers in providing necessary skills to access to entrepreneurial labour market needs should be removed».

Anastasia VET teacher

Q4	**4.1** Which digital tools for e-learning or distance learning do you have access to/know of?
	4.2 Do you believe you have the necessary digital skills to use these tools?
	4.3. Do you believe you need more support to use digital tools?

COMMON RESPONSES

- Distance learning during the COVID-19 pandemic has only accelerated gamification in learning, as educators seek new and innovative ways to reach students outside the bounds of a traditional classroom.
- All of the participants know how to:
    - participate in online meetings on Webex, Zoom, Microsoft Teams and Google Meet
    - find, create or share interesting photos, videos and articles
    - join or follow interest groups
    - play online games
    - learn more about topics that interest them
    - know how to upload and share files and make a presentation online.

NOTEWORTHY INDIVIDUAL RESPONSES AND IDEAS

«User friendly platforms certainly help both in teaching and learning processes. What would be needed more is gaining advanced digital skills, which could incorporate learning material such as as MOOCs or advanced platforms and interactive media into the teaching process.

Smaro Teacher

Q5	What could we do to make Sparks' gamified learning experiences attractive for students like you?

COMMON RESPONSES

During the focus group, we discussed the ways that we could make the Sparks' gamified learning experiences attractive:
- Make goals clear

- Explain how the course, major, or degree prepares learners to achieve those goals.
- Ensure that students align on the goals and want to achieve them.
- Make progress transparent to each learner.