PROCEDURA SELETTIVA PUBBLICA, PER TITOLI ED ESAMI, PER LA COSTITUZIONE DI RAPPORTO DI LAVORO A TEMPO DETERMINATO PER LA DURATA DI 12 MESI, RINNOVABILE ANNUALMENTE ENTRO LA SCADENZA DEI FONDI E PER UNA DURATA MASSIMA DI CIASCUN RAPPORTO DI COMPLESSIVI TRE ANNI, CON 4 UNITÀ DI PERSONALE DA INQUADRARE NELLA CATEGORIA D, POSIZIONE ECONOMICA D1, AREA TECNICA, TECNICO-SCIENTIFICA ED ELABORAZIONE DATI, DI CUI N. 2 POSTI A TEMPO PIENO E N. 2 POSTI A TEMPO PARZIALE AL 50%, PER LE ESIGENZE DEL SETTORE INNOVAZIONE DIDATTICA, SVILUPPO E CERTIFICAZIONE DELLE COMPETENZE, CON PROFILO DI TECNICO A SUPPORTO DELLE ATTIVITÀ DEL TEACHING AND LEARNING CENTER DI ATENEO PER L'INSTRUCTIONAL DESIGN, INDETTA CON D.D.G. N.617 DEL 09.02.2023, PUBBLICATO NELLA G.U. N.18, 4^ SERIE SPECIALE, DEL 07.03.2023

Adempimenti di cui all'art. 19 del D.lgs n. 33/2013, come modificato dall'art. 18 del D.lgs n. 97/2016

QUESITI DELLA PROVA ORALE

Il giorno 12.07.2023 alle ore 9.00 presso il Palazzo dell'Università - Aula Ligure - Via Balbi, 5 ha avuto luogo l'ottava riunione della Commissione esaminatrice della procedura di cui al titolo per lo svolgimento della prova orale.

La Commissione, in conformità a quanto deciso nella prima seduta, ha determinati i quesiti da porre ai candidati che vengono di seguito trascritti:

GRUPPO 1

- Obiettivi, modalità e contenuti per un corso di formazione sulla didattica accademica per docenti neoassunti.
- Devi supportare un docente alla progettazione efficace del lavoro di gruppo per gli studenti iscritti al primo anno di una laurea triennale di circa 200 studenti.
- Leggere ad alta voce, comprendere e sintetizzare il seguente brano:

A VIDEOGAME FOR FOSTERING CYBERSECURITY

Abstract:

This work has been carried out in the framework of the Erasmus+ Project 2018-1-ES01-KA201-050461, entitled: Be@CyberPro - A videogame for fostering cybersecurity careers in Schools. This project aims to train teachers and students in cybersecurity. To this end, one objective of the project has been to use an innovative computing environment that combines videogame and scenario-based problem-learning methods with positive female roles as game protagonists representing cybersecurity experts. Specifically, an interactive digital game has been designed that allows students to face different challenges in different scenarios and with different teams.

The gameplay is designed to span between 40 minutes and 1 hour – the duration of a regular school class. The game follows a role-playing game style, where players assume the roles of characters in a fictional setting. The main protagonist, a high school girl, is set out to solve a variety of cybersecurity-related challenges, native to different cybersecurity career profiles, to help her friends and schoolmates in a set of situations. More information about the video game can be found at the following link: https://www.beacyberpro.eu/game.

The game design follows a model based on methodologies such as Sternberg's model and Freytag's triangle. Sternberg's model aims to develop expert knowledge by identifying appropriate game "loops" to develop intrinsically challenging but achievable game-based learning activities, engaging learners through gradually increasing levels of difficulty. Freytag's triangle, for its part, uses narrative tension as a means of ensuring consistent and appropriate iterations of challenge and continuous feedback within the game.

To understand the impact of the students' experience with the video game, a 13-question questionnaire was carried out among a total of 60 students at the JOYFE school in Madrid. The results indicate that after playing the game, 75% of the students felt that it helped them to understand why cybersecurity is important, followed by 61.1% who indicated that they felt safer on the Internet.

Other noteworthy results are that students rated the game with 4.08 out of 5 (in the question whether they liked it or not), found it easy to use (4.31 out of 5) and that it kept them interested throughout (4.22 out of 5). One of the best rated aspects of the platform is the ease of use (4.54 out of 5) and the navigation through the platform and course material without teacher assistance (4.51 out of 5).

In conclusion, the results obtained after using the game were good, but it should be noted that 22% indicated that they did learn something about gender issues in the world of cybersecurity. Therefore, these results show the need to reinforce the gender perspective in the future.

Keywords:

Videogame, cybersecurity, role-playing game, female roles.

GRUPPO 2

- Formare i docenti alla gestione dell'interazione con gli studenti.
- Un Ateneo decide di organizzare un corso sul miglioramento delle pratiche didattiche rivolto ai docenti che hanno ottenuto negli ultimi tre anni valutazioni della didattica al di sotto della media del corso di laurea in cui insegna. Come imposteresti la progettazione del corso.
- Leggere ad alta voce, comprendere e sintetizzare il seguente brano:

AN INCLUSIVE GAMIFIED LEARNING ENVIRONMENT FOR ENABLING QUALITY EDUCATION FOR DISADVANTAGED LEARNERS

Abstract:

Enabling inclusion involves creating learning, work, and social contexts where individuals can benefit of equal opportunities, and where they are valued and appreciated as themselves. Inclusion, accessibility, and acceptance of diversity are fostered by access to validated information, high-quality knowledge, best practices, and adequate resources that consider the unique experiences, issues, and needs of individuals. Information technology is a key enabler of inclusion, as it provides access to information and best practices, as well as to accessibility tools and accessible services. Information technology also supports the fight against misinformation, streamlining and consolidating inclusion and accessibility efforts.

In the context of education, inclusion involves access to the same educational opportunities, at the same time, and at the same cost for everyone. This work, implemented in the context of Erasmus+ project INCLUDEME (http://includemeproject.eu), presents a learning intervention for promoting access to quality education for all, including disadvantaged and disabled learners. A digital learning environment is under development that deploys gaming elements for fostering and nurturing positive learning experiences for all. It promotes access to mainstream learning content through digital technologies that help overcome the challenges faced by disadvantaged and disabled individuals, such as web pages, e-books, operating systems, software applications, digital devices, and more.

More specifically, the INCLUDEME learning environment promotes the easy design and delivery of customizable, user-centered educational activities that motivate, engage, and increase the performance of disadvantaged learners. The proposed digital learning environment introduces a learning resource center, namely a repository of games adapted for addressing the needs of disadvantaged learners. It further includes an authoring tool through which educators can easily co-design and co-create gamified learning paths using game mechanics such as rewards, meaningful missions, collaboration, a sense of

affiliation, and more. The platform includes an information booth that allows students to be in contact with mentors. Finally, learning analytics provide educators information on student progress, allowing the personalization of learning experiences.

The proposed learning intervention further promotes the capacity of educators to deploy digital technologies in inclusive learning through resources, training, and networking. It supports communities to be more inclusive, by increasing awareness and equipping the relevant stakeholders with the knowledge, methodologies and tools needed to address social exclusion and equality issues. And it creates synergies among local and European communities that drive awareness, change of perceptions, leading to immediate actions, and long-term strategies that support inclusive education.

The work is implemented in Romania, Greece, Germany, Cyprus, Ireland, and Bulgaria from 2021 to 2024.

Keywords:

Inclusion, learning, disadvantaged individuals, gamification, personalized learning paths.

GRUPPO 3

- Il game based-learning e il digital game based-learning sono approcci ampiamenti indagati nella letteratura. Quali sono le loro potenzialità e quali invece i punti di attenzione.
- Progetto di Faculty Development di grandi dimensioni: dopo una fase di adesione entusiasta di un gruppo di docenti quali azioni possono essere introdotte per sostenere il mantenimento del commitment e l'allargamento del numero dei docenti coinvolti.
- Leggere ad alta voce, comprendere e sintetizzare il seguente brano:

DO YOU ACCEPT GAMIFIED EDUCATIONAL TOOLS FOR THE LEARNING OF ACCOUNTING? MEASUREMENTS TO MANAGE SATISFACTION OF USERS IN PUBLIC UNIVERSITY

Abstract:

Purpose:
In recent decades one of the main challenges for the higher education sector is to provide social value in an increasingly digital world. The introduction of digital devices in the university classroom extend teacher´ possibilities to implementing non-traditional learning models, aiming to promote a more student-focused teaching. Accordingly, it is usual that games-based learning strategies, such as Quizizz, that work well in other levels of training are taken by higher education sector, to improve academic satisfaction. However, the objectives of each specific field and level of training- due to their idiosyncrasies differ substantially. It is for this reason that researchers are emphasizing the reluctance of students to gamification as it can be a problem to achieve the objectives of education. In this line, the aim of this study is to evidence the main indicators of acceptance of the use of Quizizz, by the university student, which could be adequate measurements to manage education's objectives and needs, in the higher educational context, and specifically in the financial economics and accounting area.

Research Design:
Data was obtained through a survey –based on higher-education students- developed in 2021-2022 in Spain. Specifically, they are undergraduate and master's students who take accounting subjects at a certain Spanish Public University.
Method- PLS-SEM modeling was used to test the theoretical technology acceptance model, explaining the intention to use Quizizz in the field of university student behavior.

Findings:
With this study we can evidence the need to manage key indicators, which could be useful in the decision-making process, increasing academic satisfaction, at the same time, improving the learning through use gamified educational tools, such as Quizizz. The expected learning performance of this

tool, and feedback from influencers, were the most critical factors. The positive emotions that generate the use of Quizizz also help students accept it as a learning method to increase the efficiency of the accounting subjects learning.

Originality/value:
Digital transformation of organizations, and specifically higher education educational institutions, has caused changes in their management practices implying the need to analyze user behavior. The public university has as main objective the user satisfaction. To do this, working on the reinforcement of the main indicators of technology acceptance by students, trying to achieve high values, is essential to achieve efficient management of academic satisfaction.

Keywords:

Gamified Learning, Technology Acceptance Model, Quizizz, Accounting, Public University.

GRUPPO 4

- Il cooperative -learning è un approccio in uso da diversi decenni. Quali sono gli elementi che garantiscono il funzionamento dei gruppi di apprendimento e quali potrebbero essere le potenziali resistenze dei docenti nella sua adozione all'interno dei corsi universitari.
- Devi supportare un docente nella progettazione di ambienti virtuali ad integrazione della didattica d'aula per un corso della laurea magistrale in Life Sciences.
- Leggere ad alta voce, comprendere e sintetizzare il seguente brano:

STUDENTS' PERCEPTIONS OF FLIPPED CLASSROOM APPROACH – RESULTS FROM AN EDUCATIONAL INNOVATION PROJECT

Abstract:

The Flipped Classroom model is well known and recognized, and its popularity seems to keep increasing. In this pedagogical model, the transmission of conceptual knowledge is left to individual tasks outside the classroom while the contact hours, inside the classroom, are completely opened to problem solving, active and peer-assisted learning.

The purpose of this work is to describe an educational innovative experience that began in the academic year 2015-2016 with the University of Malaga's Educational Innovation Project PIE15/174 (UMA), based on Flipped Classroom and gamification in a collaborative system among its students. This project has been renewed and extended over the years, with the integration of more teachers and subjects from both the UMA and the Polytechnic University of Porto, up until the current PIE19/156. Further, the aim is to examine the degree of student satisfaction with the strategies and methodologies applied in class, paying special attention to the general aspects and the level of extension of the pedagogical model in each subject.

Some statistical analysis of students' satisfaction with the pedagogical model's application are presented. The results are promising and gratifying for all teachers involved, since these show a high degree of satisfaction with the teaching model and the strategy implementation.

Keywords:

Innovation, Technology, Research Projects, Flipped Classroom, Gamification, Game-based Learning, Active Methodologies.

GRUPPO 5

- Caratteristiche distintive dell'Universal design for learning.

- Aula di grandi dimensioni, insegnamento integrato composto da tre moduli e quindi da diversi docenti e prova delle valutazioni degli apprendimenti composta da 30 domande a scelta multipla (10 domande per ogni modulo). Quali proposte di riprogettazione fattibile delle prove di apprendimento faresti al gruppo di docenti coinvolti.
- Leggere ad alta voce, comprendere e sintetizzare il seguente brano:

THE BENEFITS OF APPLYING PROJECT-BASED LEARNING FOR BETTER STUDENT COMPREHENSION

Abstract:

The topic of the following research is a comparison of the results accomplished in a mathematics project, by a group of students, educated through applying constructive methods in a digital environment, instead of the traditional educational paradigm. Because the interactivity requires an interdisciplinary approach of educating, both the positive and the negative sides of the project-based learning (PBL) have been investigated, with important pointers being made about its further development.

Although PBL does not compensate for all gaps in the educational process, the results from this study suggest that by using it consistently, students become more confident and more willingly engage in classroom activities, as well as show better academic achievements. It further enhances students' ability to create interdisciplinary connections, as well as work and support each other in group projects and activities. The benefit from the regular use of PBL is also highlighted by the higher results of the teacher on their annual feedback survey. Students comment in their feedback forms that this type of exploration really showed them how many details should be thought out before starting their own business and how every single cost, no matter how little, should be accounted for because at the end it might have a great impact. Students also report in their feedback form that PBL showed them how something which looks easy in theory, might become hard to understand when not practically applied. Last but not least, the application of PBL has helped them develop a host of skills that are increasingly important in the professional world, skills such as dividing complex tasks into steps, planning and managing their time more effectively, refining their understanding through discussion and explanation, and developing stronger communication skills.

Keywords:

Project-based learning, Problem-based learning, Real life mathematics, Layout of PBL, Assessment criteria, IBO.

<u>GRUPPO 6</u>

- Criticità dell'active learning.
- Un docente fa ampio uso di attività di gruppo nella sua didattica nel suo corso del terzo anno di una laurea triennale umanistica. Il docente ti chiede di illustrargli tutte le possibili opzioni per valutare l'attività di gruppo identificandone i pro e i contro.
- Leggere ad alta voce, comprendere e sintetizzare il seguente brano:

THE DEBATE AS A TOOL FOR SCIENCE LEARNING AND EVALUATION OF SCIENTIFIC WORK. APPLICATION TO POSTGRADUATE TEACHING IN BIOMEDICINE

Abstract:

One of the most difficult tasks in biomedicine research training is writing the discussion of scientific reports like the Master Thesis or Degree Final Project. Debate may be a learning strategy to develop critical thinking, formal analysis, argumentation, and literature searching. We applied debate-based learning in a Biomedical master's degree, at the University of Alcalá in Spain. Students were divided into two teams, one in favor and one against the publication of a yet unpublished scientific paper. Each team has a mentor that supervised the preparation of the debate and explained the goals that should be achieved. In the debate session, first, the affirmative team had 5 min to present the background of the

article and the negative group 5 min to explain the objectives and experiments performed in the paper. Then, the affirmative team had 7 min to argument the points in favor and defend why the paper should be published. The negative group has seven minutes to expose the points against and defend why the paper should be rejected. After both sides have a chance to speak, both teams have 7 minutes to prepare a rebuttal and summary which is exposed in 2 min. Finally, the attending students were asked to make a critical judgment about the debate, to vote which group has won, and to select a "final decision" on the preprint paper (i.e., to accept or reject the paper). Both the groups that participate in the debate and the groups that attend the debate were evaluated by rubrics. Students' appreciation of the debate-based activity was assessed by several surveys about satisfaction. Answers indicate that the activity was greatly appreciated by the students pointing to critical thinking and oral communication as the most developed skills during the debate learning activity. Moreover, faculty surveys about students' skills and learning outcomes were also satisfactory and they declared that students improved their analytical reasoning, literature searching, and argumentation. This was evidenced by the higher level of student assessment as compared to past academic years. The results show that this tool makes it possible to develop the skills necessary to properly write scientific articles and research discussions. Therefore, we propose the use of debate as a learning strategy in biomedicine and the addition of the debate-based teaching method into the biomedical curricula.

Acknowledgement:
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Keywords:

Debate, Debate-learning strategy, problem-based learning, scientific discussion, critical thinking, postgraduate teaching.

Genova, 12.07.2023

La Commissione:

-	Firmato Prof.ssa Nadia Rania	Presidente
-	Firmato Dott.ssa Manuela Milani	Componente
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