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MARA



International Teaching Aid
Competition 2023

Reconnoitering Innovative Ideas in Postnormal Times

iTAC

2023

iTAC 2023
INTERNATIONAL TEACHING AID COMPETITION
E-PROCEEDINGS

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PREFACE

iTAC or International Teaching Aid Competition 2023 was a venue for academicians, researchers, industries, junior and young inventors to showcase their innovative ideas not only in the teaching and learning sphere but also in other numerous disciplines of study. This competition was organised by the Special Interest Group, Public Interest Centre of Excellence (SIG PICE) UiTM Kedah Branch, Malaysia. Its main aim was to promote the production of innovative ideas among academicians, students and also the public at large.

In accordance with the theme "Reconnoitering Innovative Ideas in Post-normal Times", the development of novel ideas from the perspectives of interdisciplinary innovations is more compelling today, especially in the post-covid 19 times. Post-pandemic initiatives are the most relevant in the current world to adapt to new ways of doing things and all these surely require networking and collaboration. Rising to the occasion, iTAC 2023 has managed to attract more than 267 participations for all categories. The staggering number of submissions has proven the relevance of this competition to the academic world and beyond in urging the culture of innovating ideas.

iTAC 2023 committee would like to thank all creative participants for showcasing their innovative ideas with us. As expected in any competition, there will be those who win and those who lose. Congratulations to all the award recipients (Diamond, Gold, Silver and Bronze) for their winning entries. Those who did not make the cut this year can always improve and join us again later.

It is hoped that iTAC 2023 has been a worthy platform for all participating innovators who have shown ingenious efforts in their products and ideas. This compilation of extended abstracts published as iTAC 2023 E-Proceedings contains insights into what current researchers, both experienced and novice, find important and relevant in the post-normal times.

Best regards,

iTAC 2023 Committee
Special Interest Group, Public Interest Centre of Excellence (SIG PICE)
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EDUQUEST

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ABSTRACT

Gamification of education is a growing strategy that uses game design aspects in educational settings to boost learners' motivation and engagement. It encourages the entertaining method of memorization, which has become a well-liked method of communication with students. With the intention of incorporating intriguing topics and plotlines to improve the experience of gamification education. *EduQuest* focuses specifically on tourism students who are taking Health & Wellness Tourism. The design of the innovation is based on the characteristics of gamification mechanisms, the gamified subjects and gamified learning activities. As a result, *EduQuest* is developed. *EduQuest* hopes to enhance the quality of the learning environment by giving students a slightly different gaming experience that will pique their interest in learning by featuring interesting characters just like the traditional video game. *EduQuest* enables the lecturers to periodically monitor progress in order to better understand what can be done to support individual development based on the results of playing this game. The content presented in the games has been gathered from reputable sources that have been

reviewed by a resource person of the course. *EduQuest* may also be able to help students who are having trouble scoring as the course is the core subject that carries 3.0 credit hours. *EduQuest* revolutionises education by integrating three key Sustainable Development Goals (SDGs) which are industry, innovation and infrastructure; quality education; and partnerships for the goals. *EduQuest* merges cutting-edge technology and interactive gameplay to create an engaging and immersive learning experience. *EduQuest* is utilised to improve formative evaluation by having students' complete tasks that may provide commercialisation potential by providing essential insights to various educational stakeholders within universities.

Keywords: innovation, EduQuest, education, gamification

INTRODUCTION

EduQuest is an innovative gamification in education website that combines commercial potential with novelty and uniqueness, creating a dynamic platform that benefits the entire community. With a vision to revolutionise the way we learn, *EduQuest* leverages the immersive and engaging nature of gaming to enhance educational experiences (Blankman, 2022). By seamlessly integrating game mechanics and principles into various learning activities, *EduQuest* transforms education into an exciting and interactive journey. By tapping into the growing market demand for gamified learning solutions, *EduQuest* provides a valuable platform for educators, students, and parents alike. According to Heriot-Watt University (2022), educational institutions can leverage *EduQuest's* powerful tools to enhance their curricula, while students can enjoy a personalised learning experience that fosters creativity, critical thinking, and problem-solving skills. *EduQuest's* novelty and uniqueness lie in its ability to cater to diverse learning styles and preferences. Through interactive quizzes, character plotlines, and collaborative challenges, students can immerse themselves in a gamified environment that motivates them to explore, discover, and excel (Dichev & Dicheva, 2017). The platform also offers real-time progress tracking, performance analytics, and rewards systems, ensuring a tailored and rewarding learning journey for each user. Most importantly, reported by Ryan (2022), incorporating a gamified environment with a theme and stories for learning into academic structures can provide students who might have trouble with conventional approaches with a new and enhanced option that could improve in terms of learning and engagement. By fostering a sense of community, the platform encourages collaboration, knowledge sharing, and healthy competition among peers. Students can engage in multiplayer games, join study groups, and participate in community challenges, fostering social connections and a supportive learning ecosystem (India, 2022). In summary, *EduQuest* represents the convergence of commercial viability, novelty, uniqueness, and community benefits. With its gamification approach, the platform has the potential to revolutionise education, making learning engaging, impactful, and enjoyable for all. Join *EduQuest* today and unlock a world of interactive learning possibilities.

PROBLEM STATEMENT

Given that the Health and Wellness course is the main subject and carries 3.0 credit hours. The problem that led us to create the *EduQuest* interactive game is, students have problems to score and review lessons. Students also may feel struggle, especially when traditional methods of learning do not work for them. Gamification most of the time requires a system or platform in order to be successful (Goshevski et al., 2017). With the existence of a digital interactive online platform of learning resources, it will be able to help students revise lessons. *EduQuest* will assist tourism students who are struggling to score. *Eduquest* is a gamification platform that combines education and gaming elements to make learning more engaging and effective. The gamification will cover topics of Health and Wellness subject and students can choose the one that aligns with their interests or areas they want to improve in. *EduQuest* aims to increase motivation and engagement as well. Through their involvement in gaming environments, this game will interactively help students in their studies.

PRODUCT DESIGN

Figures

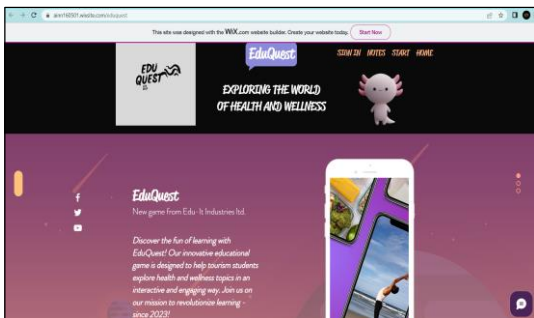


Figure 1. The Homepage

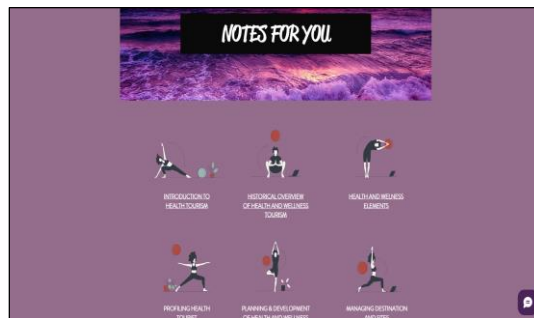


Figure 2. Notes Section

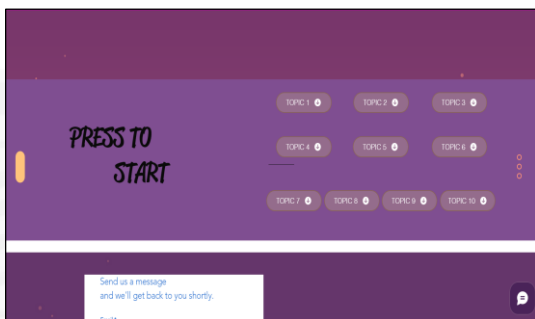


Figure 3. Quizzes Section

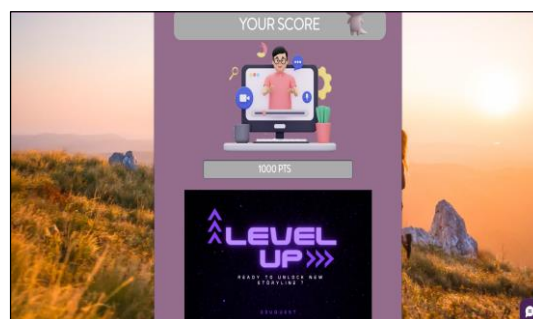


Figure 4. Score & Video

Product Uniqueness

In light of its distinct features, this gamification innovation differs from any other gamifying education website on the market. This gaming innovation includes a character and a storyline. It serves as a tool for maintaining student engagement by transforming education into an exciting and interactive journey. This gamification focuses on improving students' learning experiences by encouraging creativity and problem-solving skills. This gaming website's elements and themes are primarily based on the Health and Wellness Subject. *EduQuest* is unique in that, in addition to having characters and story lines, it also serves as a platform for students to engage in discussion about the Health and Wellness Tourism Subject.

Product Usefulness

This gamifying education is designed to assist students in improving the quality of the learning environment by providing students with a slightly different gaming experience that will pique their interest in learning. It also helps students who are having difficulty scoring because the Health and Wellness course carries 3.0 credit hours. Lecturers benefited from this as well, as lecturers can monitor progress on a regular basis to better understand what can be done to support individual development based on the results of playing this game. *EduQuest* is ideal for students who want to broaden their learning experience while having fun.

RESULTS AND FINDINGS OF THE FEASIBILITY SURVEY

In the purpose of collecting information from possible users, a feasibility study was conducted. The primary method for reaching 100 responders was a google form survey. According to Section A's demographic findings about the respondents, 78.2% of them were female and 92.7% of them were between the ages of 18 and 25. The greatest number of responders (98.2%) are single and are predominantly Malay (87.2%). The last part of the demographic findings indicates that most of the respondents (72.7%) are degree students.

The responders' awareness is measured in Section B. The findings also indicate that the majority of respondents (95.5%) believe that gamification of education can improve students' learning experiences. This is because the majority of respondents (85.5%) have used to play games for academic purposes and concur that gamification is an innovative approach to the learning process. As a result, the vast majority of respondents (94.5%) prefer gamification-based learning during class, and the majority (95.5%) believe that gamified education is significant and helpful in learning strategies. On top of that, 94.5% of the respondents, or the

majority of them, agreed that gamification can enhance learning performance while also having beneficial effects on academic attainment.

The *EduQuest* usability is evaluated in Section C. 46.4% of respondents strongly agreed with the statement that educational gaming websites could prevent users from uninteresting repetition of a regular learning class, while 30.9% of respondents agreed. Apart from that, 36.4% of respondents agreed, and 44.5% strongly agreed, that using an educational gaming platform might increase their ability for concentration, creativity, and memory. In addition, the majority of respondents (39.1%) concurred that playing games online can ensure their ability to learn at their own pace. Therefore, 38.3% of respondents agreed that *EduQuest* can help students become more self-motivated to learn.

Section D analyzes *EduQuest's* product features. 34.9% of respondents agreed, and 46.8% strongly agreed, that in order to engage students' interest, gaming websites must be designed with intriguing themes, plotlines, and game variation. To support the statement, it is also indicated that the majority of the respondents (53.7%) strongly agreed that attractive web design of gamification is also important. Besides that, as the majority of respondents (48.6%) strongly agreed, it is crucial for gaming education websites to contain reliable and useful information resources. In the final analysis, 37.6% of respondents are concerned with the effectiveness and user-friendly interface of gaming education websites while the majority of respondents (51.9%) strongly concurred that responsiveness and easy navigation can contribute to a positive learning experience.

CONCLUSIONS

EduQuest is different from other gaming platforms since it incorporates gamification for the Health and Wellness subject and provides students with more than simply a game-playing interface with untold narratives. According to the survey, *Eduquest* also has a high chance of achieving commercial success because the majority of respondents regarded it as an innovation in education that was essential to the learning process. In the end, *EduQuest* will affect many people, particularly students taking the course. By improving their learning environment and interest, in a way. To put it simply, it revolutionised the educational process and increased the usefulness of technology.

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