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The Integration of 360 Google Earth into Teaching and Learning in The Tourism Geography and Culture Course

Integrasi '360 Google Earth' dan Aplikasi Geografi dan Budaya dalam Pengajaran dan Pembelajaran Bagi Kursus Geografi Pelancongan dan Budaya

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ABSTRACT

Higher education lecturers use interactive teaching to engage students in classroom and online sessions. As the tendency shifts from teacher-centred to interactive tools for teaching and learning, students who struggle to retain elaborative factual ideas and score poorly in knowledge assessments, including in Geography and Culture course, are expected to do well. Therefore, this study aims to improve education delivery by innovating interactive learning information through integrating 360 Google Earth into Geography and Culture Applications (GeoCA) as a platform for smart teaching and learning. A quantitative method was used, using a questionnaire to measure the effectiveness of the integration of Google Earth and Geoca among 73 respondent who had been learning the Tourism Geography and Culture courses. Four primary characteristics, namely a) help to understand, b) help to memorise, c) perceive usefulness, and d) overall satisfaction, were attained to gauge the level of users' satisfaction prior to their experience using GeoCA. Using SPSS v26, a descriptive statistic was produced beforehand to demonstrate the level of success of carrying out the integration method. Findings reveal that 45.2% respondents were very satisfied with exploring the GeoCA educational web that had been integrated with 360 Google Earth. More than half of the respondents strongly agree that perceived usefulness characteristics (f=51.4%) were the main reason for their satisfactory experience. With the integration and synergy of both interactive teaching and learning tools, contributing to the students' experiential learning periods will be exciting. Schools that teach geography and culture could also make use of it.

Keywords: Teaching; Learning; Geography; Culture; Interactive

ABSTRAK

Pensyarah di Institut Pengajian Tinggi menggunakan pengajaran secara interaktif yang melibatkan pelajar dalam bilik kuliah dan atas talian. Apabila kecenderungan beralih daripada berpusatkan guru kepada alat interaktif untuk pengajaran dan pembelajaran, pelajar yang sukar untuk mengingati idea fakta yang terperinci dan mendapat markah yang lemah dalam penilaian pengetahuan, termasuk dalam kursus Geografi dan Kebudayaan, dijangka akan berjaya. Oleh itu, kajian ini bertujuan untuk meningkatkan penyampaian pendidikan dengan menginovasi maklumat pembelajaran interaktif melalui penyepaduan 360 Google Earth ke dalam Aplikasi Geografi dan Budaya (GeoCA) sebagai platfom untuk pengajaran dan pembelajaran pintar. Kaedah kuantitatif digunakan, menggunakan soal selidik untuk mengukur keberkesanan integrasi Google Earth dan GeoCa di kalangan 73 responden yang telah mempelajari kursus Geografi dan Kebudayaan Pelancongan. Empat ciri utama iaitu a) membantu memahami, b) membantu mengingati, c) merasakan kegunaan dan d) kepuasan keseluruhan dicapai untuk mengukur tahap kepuasan pengguna menggunakan GeoCA. Dengan menggunakan SPSS v26, satu statistik deskriptif telah dihasilkan terlebih dahulu untuk menunjukkan tahap kejayaan hasil kaedah integrasi. Dapatan menunjukkan bahawa 45.2% responden sangat berpuas hati untuk meneroka web pendidikan GeoCA yang telah disepadukan dengan 360 Google Earth. Kebanyakan daripada responden sangat bersetuju bahawa persepsi ciri kebergunaan (f=51.4%) merupakan sebab utama menjadikan pengalaman memuaskan mereka. Dengan integrasi dan sinergi kedua-dua alat pengajaran dan pembelajaran interaktif, memberi sumbangan kepada tempoh pembelajaran pengalaman pelajar akan menjadi lebih mengujakan. Sekolah yang mengajar geografi dan budaya juga boleh memanfaatkan penggunaannya.

Kata kunci: Pengajaran; Pembelajaran; Geografi; Kebudayaan; Interaktif

INTRODUCTION

The ability to use new software and technology is necessary for living in today's society and business. Sachin, et. al., (2022) reported that there is an accelerating capacity to interacts technology such as Artificial intelligence (AI), big data, and the Internet of Things (IoT) prior to assist organizations in producing better results with less resources. In accordance to National Artificial Intelligence (2016), artificial intelligence is now increasingly omnipresent or applied everywhere, especially in business and industry. Due to its great potential to transform the way human discover, learn, live, communicate, and work, artificial intelligence has become a tremendous potential for the economy and society. With the vast advantage of using technology, another prominent type, which is digital technology, has made more people becoming interested in the subject because of its projecting use in schools. Due to its ability to help with the learning process, digital technology is currently being applied at an excellent rate in various teaching and learning activities. In debate, Almufarreh and Arshad (2023) argues that learning with new technology will only make traditional ways of teaching and learning somewhat put to scrutiny. Nevertheless, implementation of e-learning tools and technologies in low-literacy third-world countries could be an absolute boon. This is because e-learning tools and technology does not only have the ability to facilitate learning in quite a few of the population in third-world countries, but also able to promote greater student participation while reducing time and effort (Almufarreh, et.al., 2021).

Due to outstanding use of digital technology, thus, to fit the needs of today's students, lecturers are gradually changing their roles and using a wider range of teaching and learning methods. Speaking and memorizing are no longer the only ways applied to teach and learn. But instead, more fun and interactive tasks are taking over to replace (Xhemajli, 2016; Saputra et. al., 2023). Besides that, prior research also shows in detail the limitations that conventional teaching and learning methods impose on students. According to Bedrina (2018), learning with visual information is even sixty thousand times faster than learning with text-based material. Through traditional teaching and learning method, the concept of knowledge is elucidated in a conventional classroom setting through lectures, during in which learners are obligated to actively attend and record information Shimamoto (2012). Students will subsequently investigate the notes when completing homework or assignments outside of class. Hence, without further assistance, passive learners are compelled to exert greater effort or even encounter difficulties in accomplishing the task, thereby exacerbating their learning journey too much difficulties. Besides, students often have trouble focusing, especially when they are learning subjects that are based on theories (Bender, 2023). This is because of great disabilities to understand and remember factual theories. Among some of the reasons that contributes to this problematic matter is having to read thick textbooks and reference materials with most printed in smaller sized fonts, and loads of facts in paragraphs forms with extremely limited graphics illustrations. Hence, this ultimately results in low performed students displaying indicators of learning difficulty in achieving the required level of knowledge, particularly in the context of their efforts to do well on the course. Thus, such students not only receive low assessment marks on their on-going assignments, but also receive low assessment marks on the final exam. This suggests that innovative and immediate solutions are required right away to guarantee an improvement in terms of achieving the required passing grades, especially on subjects that theories based (Fuza, et. al., 2019).

Therefore, it is only proper for different teaching methods are used to keep students constantly interested to learn and stay focused, provide better teaching materials, and help students to fully meet their learning goals (Danuri, et.al., 2021). While an interactive teaching approach is a form of learning and communication activity that involves students in the learning process (Giorgdze & Dgebuadze, 2017), by utilising interactive approaches and strategies, students are now able to get more involved in the learning process (Senthamarai, 2018). Thus now, enables students to gather more knowledge, which in turn leads to a greater sense of satisfaction with their performance. Furthermore, the use of interactive teaching features has further shown to build the relationships between students and learning process, which in turn leads to a better grasp of the information being taught, more effective and open communication, and ultimately, gain better results (Senthamarai, 2018). Interactive method does not only involve students in the learning process, but it also reflects on what the students already know and what they are thinking, and as a result, it focuses on the students' needs, talents, and interests (Fakhruddin, et.al., 2023).

Besides interactive teaching approaches, the existing body of literature on web-based application and mobile learning also frequently examines the analysis of the current situation, service models, and technical implementation. Based on the studies conducted by Mahalakshmi and Radha (2020), internet is the main component of web-based learning. Students can access to their respective online courses and online classes using own personal computer, laptop or smart phones, everywhere that deems fit to their existing responsibilities and commitments. They further noted that the learning resources takes place on the world wide web (www) enabling both the lecturers and students to interact simultaneously. Just by simply registering and log in to respective institutional account from the comfort of own home, students are able to engaged with the courses multimedia content and learning materials, making online courses easily accessible. Thus, e-learning courses have become pretty much popular in the current century due to its convenient features compared to the traditional face to face learning. Sophonhiranrak (2021) in her studies mentioned that mobile devices are not just merely a tool for communication, but it is also a powerful instrument that is beneficial for the economy, mass communication, and learning. Due to rapid use of mobile devices and the Internet, these tools are increasingly grown to being utilized in education for both learning process and giving instruction. In a positive stand, El-Sofany and El-Haggar (2020) further discussed that in the recent years, mobile technology is considered an exemplary effective way that could assist in improving students' skills. This may include skills towards positive thinking, collaborative learning and communication, in which are considered all as the main major parts of innovation, especially in e-learning research areas. With such beneficial contribution, a shifting paradigm from traditional teaching and learning methods to mobile learning is expected to further employed in the 21st century higher education. Thus, it is therefore important to investigate how mobile devices can be applied in learning.

Nevertheless, there is a noticeable dearth of reviews pertaining to satisfaction applications for mobile learning (Liu, et al., 2018). Hence, the potential for improving learning outcomes through the customisation of learning tools, as suggested by research on mobile learning behaviour (Hetrick, 2015), has prompted extensive scholarly investigation into the growth potential of web-based and mobile learning applications in relation to the flexible learning behaviour of various demographics. With similar standing on the positive usage of learning via web-related and mobile education application, this study aims to investigate the potential of web-based and mobile applications, specifically combination of integration with the 360 Google Earth for specific courses taught at tertiary education level to improve students' efficacy of learning and instruction. Thus, it is in line with the rapid advancements in both mobile learning and web applications. Furthermore,

this application also aims to address one of the persistent problems, which is concerning the lack of focus exhibited by university students when studying theory-based subjects.

Google Earth is a free software that presents a 3-D virtual map which can be accessed using a web browser. By using satellite images, aerial photography, and a Geographic Information System generated three dimensional (GIS-3D) globe (D'Augostino & Santus, 2022; Lamb & Johnson, 2010), a user can search for an address or any place on earth from the software which Google Earth will find and show the destination to the user. Google Earth's expansion into education was finally achieved with the Google Earth Education website that focuses on education for school children until university students. The website presents many stories of earth geography where students can explore the destination while understanding the factual history or stories. A study conducted by Ahmad, et.al., (2023), further reveals their findings on the benefits of using Google Earth Education from the conducted interviews with students whom had the opportunity to use this application. Results showed that Google Earth has great potential to be incorporated in class due to its impressiveness and desirable for research work. Most students also viewed their excitement with the virtual satellite illustration of three-dimensional buildings on Google Earth particularly when the virtual tour starts showing aerial view map of the city, zoomed to the street view and finally enter three-dimensional buildings of places of attraction. These indicate the usefulness of 360 Google Earth Application which is absolutely valuable if integrated into courses such as Geography and Culture in Tourism through web and mobile application.

Geography and Culture App, or GeoCA, is a smart educational web app that specifically developed for Geography and Culture in Tourism course, which is commonly features massive factual theories and full text contents. Hence, by making GeoCa applicable to access via various devices such as smartphones, tabs and laptops, lecturers can better assist students to develop their geographical interests, making activities more engaging, and getting more geographical information (Davis, 2019). Using such unique learning platform, popular interactive methods are further utilised in GeoCA on a widespread basis to obtain the development desired results. This includes activities such as solving problems, being creative, playing games, participating in community projects, 360 view as well as utilising new materials. Interestingly, GeoCA were integrated with 360 Google Earth to better visualize and boost learning experience specifically of destinations all over the world. The ability to think spatially is great essential to geography, and the technological features of Google Earth make it beyond feasible. The interface of Google Earth, which provides viewers with an aerial perspective of the city as well as Google Street perspective and immersive photographs taken in 360 degrees, greater assist users in visualising a location without the necessity of physically travelling there and at zero travelling cost. The use of GeoCA in tourism geography subjects is helpful to the students. However, it is important to access the user experiences of using this web application. Thus, this study further examines the respondent's attitude towards the integration of 360 Google Earth and GeoCA website looking at help to understand, help to memorize, perceive usefulness and satisfaction of using the web-based application.

LITERATURE REVIEW

Malaysia's government has undertaken numerous endeavours to create software and courseware associated with education and instruction, with the most notably is the 1BestariNet project, which incorporates a Frog virtual learning environment within schools here (Halili et al., 2019). Cheok and Wong (2014) assert that this undertaking empowers the Malaysian government to assess technology utilisation and implement instructional methodologies that reforms in educational institutions. In addition to providing students with the ability to access and utilise a variety of learning tools from any location and at any time, web-based platforms, including virtual learning environments, enable them to share learning resources and documents, access course content and programme information, and receive assistance from instructors. A study conducted by Trowler (2010) noted that the integration of such technology into teaching pedagogies is not only growing but also accelerating its integration into tertiary education, resulting in positive transformations. However, Anwar and Greer, (2008), stresses on the challenges of restricted e-content, lack of proper infrastructure, and digital divide as a concerning problems that are associated with e-learning. This further becomes a hindrance factor that leads to low adoption rate on e-learning. Despite this concern, the mishaps of Covid-19 pandemic have preamble the needs to revised the traditional teaching methods because many educational institutions of higher learning have transitioned to open and online learning, as well as remote learning from home upon the enforcement of lockdown. To avoid delays in education delivery, Selvanathan et al., (2020) in their study, proposed that educational institutions of higher learning ought to enhance the delivery of online instruction during pandemics. Hence, the implementation of e-learning, which is also known as online learning, for the course Tourism Geography and Culture is represented by the incorporation of 360 Google Earth into the course curriculum. As a result of the difficulties that students often faced have when attempting to self-learn the course from the comfort of their own homes, the availability of open and distance learning method necessitate the instructor to implement alternative instructional strategies for the tourism geography related courses (Bukhsh, 2013; Gurajena, et al., 2021).

Furthermore, as per findings of Freeman et al. (2014), active learners exhibit greater learning efficacy technology in comparison to inert learners, who adhere to the conventional lecture format. Consistent with the findings above, an additional investigation discovered that the implementation of video lectures significantly fosters student engagement and active participation when compared to a traditional learning setting, thereby improving students' academic achievements (Merkt & Schwan, 2014). Due to these significant discoveries, an increasing number of technologies like mobile learning applications facilitate collaborations between education and instruction, while also aiding students in effectively showcasing their aptitude through the rapid development of diverse learning tasks (Khaddage et al., 2016). Besides, the study by Khaddage et al. (2016) enumerates various categories of applications, namely Hybrid Apps (comprised of both native and web/cloud app characteristics and cross-platform functionality), Native Apps (specific to a particular device and operating system), and Web/Cloud Apps (server-side applications, platform-independent devices, and devices that operate on all platforms). What is more, Google Earth provides users with the ability to examine 360-degree streetscapes in 85 different countries (Kim, & Kim, 2017). These streetscapes may be viewed with virtual reality headsets such as the HTC Vive or Oculus (Xiang, & Liu, 2017).

Studies on 360 Google Earth in education are conducted in various disciplines. However, the application of 360 Google Earth in Malaysian education has not been thoroughly investigated, even though it has been around for a considerable amount of time. Some pedagogical applications of 360° videos includes cultural heritage virtual tours (Argyriou, et. al., 2020), supplemental materials in laboratory experiments (Ardisara & Fung, 2018), viewing modality of medical procedures (Arents, et. al., 2021), safety skills teaching tool (Araiza-Alba, et. al., 2021) and virtual field trip (Garcia, et.al., 2023). A study by Hagge (2021) further examine the students' perception of using the HTC Vive's Google Earth Virtual Reality (VR) app to virtually visit places relevant to that day's lecture and the result showed that overall student views of classroom virtual reality (VR) were positive. In the study by Garcia et. al., (2023) on virtual tours, the result showed that d pupils' video engagement, involvement, and attitude as significant factors in their Virtual field trip experience. This indicates that 360 Google Earth has a significant used as an educational tool.

In line with this, map-based applications are found useful to learn about places and locations. A study by Sari, et. al., (2020) on disaster learning through a map-based mobile application found that the uses of Google Earth is useful for the students to learn about disasters through cartographic visualization on the mobile application with suggestions for improvements compared to the printed maps. Meanwhile, in the study by Sundari (2023) used the Google Earth application to Enhance Students' Speaking Skill in Learning English. According to the authors, the students are happy and motivating for them when the researcher taught by using Google Map in learning English. This highlights the students' attitudes towards the use of Google Map. In tourism geography, Castro, et. al., (2018) highlighted on Virtual Reality in e-Tourism. Author differentiates the virtual reality application use Google Maps, and worldwide heightmap to get 3D geographic map models; HTC VIVE and Oculus SDK for support virtual reality experience; and weather API to show the weather information from the desired location in real time. The result highlighted the used of each virtual reality application but accordingly the used of virtual reality is for information based to the tourist to learn about the tourism attractions before travels to certain destinations.

Luo, et. al., (2018) used Google Earth as a powerful tool for Archaeological and Cultural Heritage Applications. The author highlighted that from review from the selected case studies, it is illustrate how Google Earth can be used effectively to investigate Architecture and Culture and Heritage at multiple scales, discover new archaeological sites in remote regions, monitor historical sites, and assess damage in areas of conflict, and promote virtual tourism. A study by Kizilçaolu (2010) on the other hand, explores European country with the help of the Google Earth Program to create a travel journal. The author stated that with the geographic information they gather from Google Earth, students learn how to organize and interpret this knowledge and thereby learn about the complexities of a particular country. This indicated the benefits of using Google Earth in tourism destinations. Meanwhile in Tourism Geography educations, the research conducted by Graham et al. (2017) found that students have a difficult time studying geography since geography is a subject that is mostly taught through visual means. Additionally, to fulfil the requirements of the course, students are required to understand the tourist attractions that are located in distant locations that may be unfamiliar to them. Students for undergraduate need to know the tourism attractions all over the world. They required other educational tools that can help them to be familiar with the tourism attractions all over the world. Hence, this has made it necessary for the students to make use of 360 Google Earth in order to aid their learning about the topics that are covered in the course.

Students' attitudes in e- learning is very important. To examine people's behaviour towards technology, the Technology Acceptance Model (TAM) is usually used for further investigation. The two main variables in TAM namely perceived usefulness and perceived ease of use as predicting the individual's acceptance of different information technologies (Iqbal & Bhatti, 2015). The author conducts a study on university student readiness towards mobile learning (m-learning) and the result showed that students' skills and psychological readiness strongly influence their perceived ease of use (PEU) and perceived usefulness (PU) of m-learning, whereas both these constructs positively influenced their behavioural intention to use m-learning. In the study by Huang (2020) on the influence of self-efficacy, perceived usefulness, perceived ease of use, and cognitive load on students' learning motivation in blended learning methods towards learning attitude and learning satisfaction, the result showed that perceived ease of use and perceived usefulness positively affects learning attitude. Additionally, attitudes towards helping to understand and memorize are useful to examine based on Bloom Taxonomy level of knowledge in technology related subjects. Furthermore, students exhibit favourable attitudes towards learning subjects when they have the belief that new technology would be effortless and advantageous to utilize (Ciloglu & Ustun, 2023). Similarly, through the study of Prokop et. al., (2007), findings reveals the success, interest, and motivation of students in a particular subject are significantly influenced by their attitudes towards that subject. This is because one's attitude has a crucial role in shaping their perception, emotions, and responses towards the situation at hand (Azjen, 1996; Fazio & Roskos, 1994).

METHODOLOGY

The approach employed for this study is predicated on a synthesis of interactive tools, including infographic presentations containing annotations from each chapter of the syllabus, textual discourse, and animation, which were subsequently transformed into interactive videos. The finalised videos are uploaded to YouTube in conjunction with the application's web-based software. In the context of Geography and Culture in Tourism, the video emphasises key aspects of human and physical geography that align with the course outline, allowing for a more targeted discussion in contrast to the abundance of unexplored information available online. Furthermore, Google Drive has been integrated into both applications to facilitate communication and the transmission of pertinent files, including assignment instructions and online reporting on completed assignments, between lecturers and students. The application provides a multitude of pertinent tutorials that assess students' comprehension, in addition to a forum wherein students can offer constructive criticism.

Besides that, the contents on this web apps includes an enhanced activities section designed to aid students in retaining information in long-term memory by combining visual, kinaesthetic, and auditory learning modalities, particularly during open and distance learning (ODL). The activities section of GeoCA was developed utilising the highly user-friendly Word Wall platform. To begin with, the content for the activities was chosen in accordance with the most recent syllabus material. The content is then adapted to correspond with the game category on the Word Wall platform. Within the games section of GeoCA web applications, seven (7) categorical games have been developed and linked including Whack a Mole, Balloon Pop, Word Search, Match Up, Find the Match, Anagram, and Map. The selection of these categories is based on users corresponding interactive views and their alignment with the primary learning objective of GeoCA, which is to

assist students in comprehending the course material more efficiently and remembering extensive factual information.

Furthermore, the most recent study on GeoCA web app reveals an upgraded version of GeoCA, that is combined with 360 Google Earth feature, a free programme that lets users to search for geographic locations anywhere in the world using satellite data, aerial photography, and 3D globes created using GIS (Lamb & Johnson, 2010). Within the context of teaching and learning, for the Tourism Geography and Culture course, 360 Google Earth offers students lots of opportunities to study about a variety of international locations. Besides the capabilities of Google Earth's technological in allowing for geographic spatial thinking, the 360 Google Earth interface also can help students to better illustrate a location without requiring them to travel there physically, hence saving all the travelling costs that could possibly incur. It gives viewers the access to Google Street perspective, a 360-degree panoramic shot, and an aerial perspective of the city. Therefore, it can be deduced that this study resulted in the development of a hybrid application, which is a mobile application that integrates multiple platforms including 360 Google Earth, and YouTube-hosted interactive instructional videos.

This descriptive study tests the integration of 360 Google Earth and GeoCA web content effectiveness due to the extension of the application. A quantitative method was employed using the structured questionnaire. A survey online was integrated in the GeoCA apps and users that have assessed to the GeoCA website is required to respond to the survey prior to close the app. Due to its trustworthy and efficient platform for conducting surveys, Google Form was used to collect the respondent's data. *Sekolah Menengah Kebangsaan Balai Besar, Dungun*, had been chosen as the sample for secondary school, with a population of 100 students from three and four due to the collaboration with the teacher that teaches the geography subject. For the tertiary institution, the researcher selected the UiTM Terengganu Branch, which has a population of 150 students pursuing a four-semester diploma in tourism management. A total of 73 respondents who were conveniently distributed from secondary and tertiary level institutions prior to testing the effectiveness of the integration based on their experience learning Geography and Culture in Tourism were analysed. The testing was done to determine whether the integration was successful. The feedback survey consisted of four questions, each of which represented one of four primary characteristics. These characteristics were initially derived from important inquiries that were utilised in the past to gauge the level of consumer satisfaction that was attained using websites. After successfully completing access to the GeoCA site, respondents are obligated to answer all four questions. Descriptive statistics were generated following a comprehensive analysis conducted with IBM SPSS Software to demonstrate the efficacy of GeoCA. In the end, the response was analysed with the use of automatic summaries, and a descriptive statistic based on percentage was produced beforehand to demonstrate how successfully the integration was carried out.

RESULTS AND DISCUSSION

The majority of those who participated in this survey are aged 18 or older (76.7%), while 23.3% are between the ages between 13 until 17 years old. Only 2.7% of them are teachers, whereas most of them (97.3%) are students. The attention of respondents' group was directed towards students at secondary and tertiary educational institutions who are studying topics connected to culture and geography. Henceforth, the findings of this study indicate that the respondents were deemed

appropriate. In further research, we address the respondents' attitudes regarding the context of the GeoCA interface. The following table, Table 1, provides a glimpse summary on the feedback received from respondents regarding the integration of 360 Google Earth and the GeoCA website.

TABLE 1. Respondents attitude towards the integration of 360 Google Earth and GeoCA website

Respondent perceptions	Result	Percentage
Help to understand	Strongly agree	47.9
	Agree	47.9
	Neutral	2.7
	Disagree	1.4
	Strongly disagree	None
Help to memorize	Strongly agree	48
	Agree	46
	Neutral	3
	Disagree	3
	Strongly disagree	None
Perceive usefulness	Strongly agree	51.4
	Agree	47.2
	Neutral	1.4
	Disagree	None
	Strongly disagree	None
Overall satisfaction	Very satisfied	45.2
	Satisfied	38.4
	Neutral	16.4
	Dissatisfied	None
	Very dissatisfied	None

Based on the findings of this survey, most students and lecturers fully agreed (47.9%) that the integration of 360 Google Earth and the GeoCA website does assists them in better understanding the material covered in the course. This finding eliminates the problematic issues of difficult to understand massive factual, thus enabling students to familiarize and have greater interactive learning experiences in learning tourism geography course. The result reveals a similarity to the studies of Sundari (2023), in which most students believe that using Google Map in English classes will help them better understand about the place's description. Hence, after accessing the GeoCA website, the results showed a positive response as it is easier for the respondent to understand the contents of Tourism Geography subject. Meanwhile, 48% of respondents fully agreed that the website assists them in better memorizing the material covered. As indicated by the Hsu et al., (2018), teaching with Google Earth significantly improve students' topographic map reading ability. Meanwhile, Sundari (2023) also highlighted that when students are happy and secure with the subject, they are likely to be more active and confident in participating in the activities. Therefore, by using the GeoCA website with further elements of360 Google Earth, it able to help students to memorize the location while having fun and enjoy the learning experience.

In addition, the results of this study also showed that students and lecturers agree, to the extent of 51.4%, that the integration in question is beneficial for the objectives of their knowledge and education. The findings similar to Ahmad, et. al., (2022), in which they found that 360 Google Earth is an interesting tool where the student could discover the destination attraction virtually. This would enhance their experience learning for this course. A study by Rosendahl & Wagner (2023), also supports this finding, where their study found, that 360-degree visuals have a great deal of promise for presenting theory and practise through observation or reflection, boosting motivation and interest, generating genuine and realistic learning experiences, and encouraging

interactive and immersive learning processes. Finally, this study assessed the student's overall satisfaction of using the GeoCA website that has integration with the 360 Google Earth Map. The result showed that 45.2% of respondents were very satisfied and 38.4 % were satisfied with the content and activities provided for this subject. This highlights that the website developed as an additional teaching and learning tool is a good technology innovation that can help in tourism geography subjects. In similar case, a study conducted by Sari et al., (2020), on the use of map-based mobile application for disaster learning in Indonesia, showed that students are highly satisfied of using the web application rather than convenience way of using the printed map to study the subjects. This highlights the requirement to have a web application in learning the location or map to help students familiarize themselves with the tourist geography attractions.

CONCLUSION

It is anticipated that the integration of 360 Google Earth and GeoCa will assist students in comprehending and remembering factual material covered in class. The use of technology innovation is found useful to help students to understand and memorize the topics. Although the innovation of this integration is thought to be helpful for students studying topics linked to geography and culture, it is also intended to be of assistance to the general population that is interested in increasing their knowledge of facts about the world. This study found that the use of 360 Google Earth application in GeoCa helps students to understand and memorize the tourism attractions in the world. The use of gaming, informative tools and interactive mapping tools is useful for learning culture and destination of tourism attractions. This study also found that the use of GeoCa is useful for the students to learn tourism geography. Furthermore, the level of satisfaction among respondents regarding this integration is very high; therefore, it is anticipated that the invention of the GeoCA website would be beneficial to many individuals while also providing an appealing learning medium to students who are relevant. This study is the technology innovation in education especially that used location. It is relevant for the tourism educators to include the elements of gaming, informative tools, and interactive mapping (GeoCa) in the tourism geography subjects. The subjects are teaching by many Higher Education Institutions (HEI) in many countries; therefore, it is suggested the implication of web-based education tools like GeoCA can be used in teaching tourism geography subjects.

Additionally, tourism geography is a general topic, therefore GEoCA can be used by all the students and young people to learn about culture and attractions places in the world. Meanwhile, students can also use this application to improve their learning capabilities in tourism geography subjects. As the millennial generations like the technology, therefore the GeoCA application is the relevant materials for the students to learn the subjects. This study used descriptive analysis only, therefore future study can focus on testing the variables that influence the user's satisfaction and intention to use this web-based application. The SWOT analysis also required to enhance values of this web-based application. More technology innovation can be added to enhance values in GeoCA to help the users explore more on tourism activities all over the world.

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