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RESEARCH ON
DIGITAL TECHNOLOGY AND LEARNING

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PREFACE

Research on Digital Technology and Learning

Entering the third decade of the 21st century, the world of education has undergone tremendous changes. The Covid-19 pandemic, which shook the world with so many people dying, also greatly affected the world of education. All levels of school, from primary to higher education, has been undergoing shifts from face-to-face meetings or direct teacher-student interactions to virtual classrooms. Thanks to highly advanced digital technology, the process of teaching and learning continues even though there is obstacle that still needs to be overcome. However, in general, the world of education does not stop its activities. Teachers and students can still communicate and continue the process of teaching and learning so that .the transfer of knowledge keeps happening

Today, the use of digital technology for learning is a must. All teachers and students are required to be technology literate in order to be able to do their tasks. Generally, young teachers can quickly adjust to the situation. However, many senior teachers have their own obstacles in using digital technology for learning. For the sake of .learning, all of them are required to be able to do their job well

Teachers must know and be able to master technology in order to carry out e-learning according to their respective needs. In other words, teachers must be able to use digital technology in their class rooms. Face-to-face process of teaching and learning is definitely different from the process of teaching and learning in virtual classes. This is where teachers are required to be creative. If they continue to teach in traditional ways in the sense that they only deliver their material through lectures, the students will most likely be bored. To overcome this problem, social media and games are an alternative that can be used for teaching, especially in language classes. Videos on YouTube, for example, can be optimized as learning materials. In addition, interactive games in sync with the topic of conversation or .subject matter in class can attract students' interest to study well

These are the things the authors discuss in this book. The ten articles in this book are categorized into three topics, namely social media, e-learning, and games. Each of the authors of the articles in this book conducts research on digital technology and learning. Their studies highlight the role of digital technology plays a crucial role in people's lives. Digital technology serves to empower people to broaden their knowledge, establish relationships, and maintain meaningful exchanges. In today's learning, one should be familiar with and embrace digital technology to empower oneself. Their articles also imply that with the Covid-19 pandemic, digital technology has saved education, not only in Indonesia but throughout the world. In today's world, unprepared teachers will stutter and will not be able to teach well. Similarly, students who do not adapt to digital technology will find it more challenging to acquire and broaden their knowledge. The collaboration of teachers and students, at the primary to higher level of education, is inevitable to .welcome the new world of technology and Internet-based education

This book is written as a part of the research grant awarded to by the Ministry of Research, Technology, and Higher Education. This book can be used as a reference for English teachers who face challenges in embracing digital technology in their classrooms and for English learners in Indonesia who are interested in writing .similar topics for their final projects or thesis

FOREWORD

Digital technology has changed the way we learn new knowledge. Multifarious mobile applications, new era social media, sophisticated gadgets and the Internet connection enable learners acquire new knowledge anytime and anywhere. Digital technologies affect learning in numerous ways. They can help students increase their learning motivation, attitude, confidence, and attainment. This book is a collection of studies on digital technology and learning with topics ranging from social media, e-learning, and games. This book invites all educators to adapt to the current conditions and situations while at the same time challenging them to be able to carry out the learning process well. The ideas and thoughts in this book are not final, but rather, they mark the beginning of a productive discussion about digital technology and learning. Follow-up discussions in the form of articles or books are expected so that we have more ideas that we can contribute to our education world towards a more advanced, better, and more acquainted Indonesia with technology for humanity.

I am proud and happy that this book entitled Research on Digital Technology and Learning can be published and become one of the references for lecturers and students in conducting their research. I hope this book can make a positive contribution to the development and progress of learning at all levels of education in general and in higher education, especially learning process related to digital technology. This book would not be published without the cooperation and the contributions from lecturers and students who care about learning using digital technology. I greatly appreciate all the writers who have dedicated much of their time to write these reports so that everyone who is interested in technology can take advantage of it.

B. Retang Wohangara
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The Influence of Playing Video Games towards Educational Gamification Mastery

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Abstract: This article is a development of an found that young people are filling up some of their time by playing the popular culture of video games. One of the video games preferred by the youngsters from a video game tournament organized by the Faculty of Language and Arts (FLA)from Soegijapranata Catholic University was the entertaining Mobile Legends. In finding out whether or not playing video games was advantageous for academic life, further research was carried out. Through a questionnaire and interview session, the research found that tutorials done before playing video games were beneficial for 25 students from the first semester of the English Department of FLA to understand instructions of quizzes, which had a Game-Based Learning platform. The experience of pushing the right buttons in a game tutorial had also helped students to master the mechanics of the keyboards to answer the quizzes from cyber.unika.ac.id rapidly and accurately. The English vocabulary used to play the games was also beneficial in increasing the mastery of the students' English language.

Keywords: video games, Game-Based Learning, English language, cyber. unika.ac.

INTRODUCTION

Internet technology has made a big advancement to many aspects of life. Because of this, many life aspects such as shopping, ordering for transport, and communicating with others are now more frequently easily done online via

mobile phones or PC/ laptop. Internet technology has also affected the world of education, resulting in what we know as online learning that blends in with offline learning, which most people know as blended learning. This is in line with research in 2015, which reveals that educating students in the era of 4.0 is successful only when using digital learning. In this kind of learning, on the one side, the students have required to show off their mastery of three components of blended learning: face to face meetings, online learning, and self-study; and on the other side, the teachers, are required to master in using various online platforms such as YouTube, Blogspot, Twitter, and make quizzes for students that are similar to playing video games (Murniati & Sanjaya, 2017). In playing the educational game of quizzes, the students are made to become the grand producers of their learning as proof of not only increasing their skills of operating a computing device but also in actively learning their English language mastery.

Soegijapranata Catholic University has been implementing blended learning through its Learning Management System (LMS) since 2009. The LMS, however, was not user-friendly enough that it received some development in 2014 and much later in 2017 as cyber.unika.ac.id. Not many lecturers have used this platform due to the alternative that teaching offline was still enjoyable. Yet, when Covid-19 pandemic struck the educational world that insists people to do their activities online, both lecturers and students had no other choice but to fully use cyber.unika.ac.id for their educational activities (Suara Merdeka, 2020; Dukut, 2020).

The 7-days-24-hours cyber.unika.ac.id is among others attractive for its gamification, where students are expected to open materials and do the quizzes prepared by their lecturers and submit assignments within a specific time limit as a deadline. This indicates that success in online education is entailing students to have the gamification skills of being fast, precise, and concise in doing their online learning activities. Woodcock & Johnson (2018) explain that gamification is, in fact, a supporting tool for a system that applies game-like components. The components give opportunities for competition, rewards, and quantifying player/ user response. That kind of system is usually implemented into non-game domains, such as for

work, gaming, and fitness. This implies that the gamification application of cyber. unika.ac.id is conducive for students who are used to playing video games. Similar to video game players, Soutter & Hitchens (2016) believe that most students would be interested in learning when the learning activities have some play or activities that bring in some enjoyment. This belief is also supported by Sanmugam et al. (2015) who inform that gamification learning is advantageous only when it enables an enhancement of students' capabilities of understanding the lessons from their lecturers in a playful way.

Two-point seven billion users worldwide are recorded as players of video games (Wijman, 2020). This high number, thus, intrigues the writers to try and understand why people like playing video games. One form of enjoyment could be that in playing video games, players are made to look forward to the next gameplay, just like someone who is looking forward to the next drama TV series, or continuation of a novel series. Yet, unlike conventional drama or novel series, players of video games have a major role in controlling the players in a video game. Usually, a single video game offers tutorials for the players to master the games they play. Because of this, when the player finishes a tutorial, he/ she can guarantee that he/ she will find some fun in finishing that game. The possibility of winning the game as shown from the tutorial can add to the enthusiasm of playing it because the program lets players win under training circumstances. In educational games, therefore, there is the possibility that students expect some way for them to 'win' or pass the quizzes with high scores.

This article is influenced by an undergraduate research done by Estevanus (2021) who found that young people are filling up some of their time by playing the popular culture of video games. One of the video games preferred by the youngsters was the entertaining Mobile Legends. Estevanus found that video game has become very attractive throughout the years that players are popularizing them by playing them regularly through various ways like holding tournaments, selling gaming accounts, and also merchandise. The popularization of video games around the world has led to a global lifestyle because the players can interact with people online from different languages and cultures. Using Cresswell's (2018) qualitative

method to collect data via a distributed questionnaire in the form of google form, and also interviews to confirm the answers given by tournament players and participants as subjects of the research, Estevanus focused on two research questions: (1) why are video games identified as popular culture and (2) what are the preferences of the players who play them. The identification of popular culture characteristics took into account Dukut's research findings and the preferences of the players used Ching and Zammito's findings. The analysis on the popularity found that video games were entertaining, easy to obtain, manipulating, cheap and affordable, creating a global-local lifestyle, reflecting people's daily lives, and reflecting a certain period. As popular culture, video games also had a temporary, practical nature, in addition to bringing financial benefits. With regards to the preferences, the research found that video games were preferred as a popular thing to do because they also became a medium for English language learning. Video games were also found to have an interesting plot, enjoyed for the building up of characters and play style, and because it gave players the satisfied, relaxed, and happy feeling that they searched for.

Using the undergraduate research as a basis, the research is further developed to answer the writers' aims of this research article who wanted to know how playing video games have influenced first semester students of the Faculty of Language and Arts, Soegijapranata Catholic University to (1) master the mechanism of cyber. unika.ac.id gamification, in addition to (2) master the English language.

LITERATURE REVIEW

A. Similarities of Video Games Tutorials and their Game-Based Learning (GBL) Quiz

In producing video games, developers usually provide a game tutorial. The tutorial involves some introductory mechanics to guide the players to play the game. The game developers are usually strict about tutorials as they will not let the players progress any further without completing all of the tutorials. This indicates that the tutorial is really important for gamers to complete the game, while at the same time giving players the impression that playing the game will not be only

interesting but easy to do.

Brenner-Adams (2018) stated in his research that there are similarities between learning about video game's play and their mechanics through the given tutorials and basics of Game-Based Learning (GBL). The similarities are the learning process of the players, which is no different from the learning process of university students in doing educative games or quizzes because educational gamification is an application of game-design elements that is used as a tool in education (Haroun, 2018). The similarity, in this case, is that both video game players and university students are expected to complete the tasks given by following a given tutorial or instruction to achieve the victory of obtaining good scores.

Game tutorials are there to make video game players familiar with the rules that underlie the moment-to-moment activities and the actions that they will be completing most often in the game. This is similar to students doing a quiz in cyber. unika.ac.id, who are expected to read and understand the instructions given by the lecturer. Failure to follow the instructions may contribute to a misunderstanding of the given task and produce low scores. With this condition, this research hypothesized that students, who often play video games are those that will read quiz instructions seriously. Moreover, just like a video game tutorial, if the quiz instruction has examples, the students are expected to also already know whatever strategies are required to score a good score.

B. Roles of Video Games' Tutorials in Influencing Educational Gamification

Gamification is a new learning method that adapts the elements of video games that can increase students' motivation in the learning process (Rahardja, Aini & Khirunisa, 2019, p. 68). According to Ariani (2020), gamification implements game elements in non-game activities, which have a positive behavioral impact on its users that gamification has been targeted for the Learning Management System (LMS) often used by higher education. Gamification techniques are believed useful in higher education such as in universities as they increase students' involvement in pursuing tasks in learning in an enjoyable way (Alomari, Al-Saarraie & Yosef, 2019).

Soegijapranata Catholic University's cyber.unika.ac.id, which uses Moodle for its platform has gamification elements that increases students' interest called: points, badges, leaderboards and levels. The first element is called points. Points help provide students with a competitive learning environment, so they become more motivated to participate in the educational activities. Alomari, Al-Saarraie & Yosef (2019) give an understanding that badges are symbols used to show the rewards obtained in gamification. Badges allow students to be more active in learning in order to get higher grades.
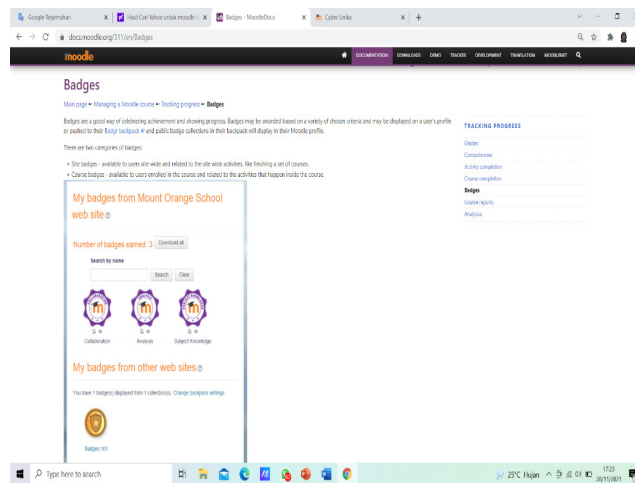

Figure 1: *Badges (https://docs.moodle.org/311/en/Badges)*

In assigning badges there are two categories to choose from: a site and course badge (see Figure 1). The site badge informs that students have finished a set of courses. The course badge shows how well students have done the activities inside a course.

The other element is leaderboards. The function of leaderboards is to show a students' position in the competition that is learning. Leaderboards play an important role in increasing students' motivation in learning because they can see and compare the rankings of their classmates like that seen in Figure 2. The higher the mark a student has, the higher the rank he/ she is in the leaderboard.
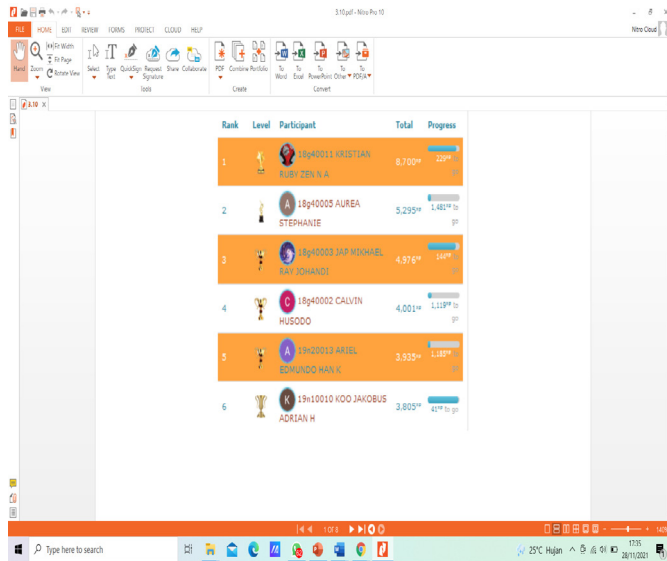
Figure 2: *Leaderboards (http://lib.unika.ac.id/template/ prolimite/partials/manuals/cyber/)*

The next element is levels. Levels are used to see an individual's progress based on the challenges that have been completed which will then determine whether the individual can advance to the next stage or not. In addition to these elements, cyber.unika.ac.id also provides features that can be used to create fun content for gamification (Sanjaya, 2020). A lecturer in this case, can feed in the system to detect how students have carried out each of the activities assigned for them, so students will receive different scores for each of the activities done. Once a value fulfills a certain target, the students will receive awards such as a leveling up of the gamification in addition to being awarded certain badges.

With regards to the above explanation, educational gamification is thus, similar to playing video games. Despite its main characteristic to provide entertainment for the players, video games can be a good tool for teaching and learning. Ziragawa, Olusanya, & Maduki (2017) stated that video games play a vital role in the process of building students' self-confidence because the students attempt to try something new with great curiosity. The curiosity is shown by the way the students are enthusiastic in pressing buttons to access things that they never knew before. One of the reasons for this active behavior is because educational

gamification or GBL quizzes are constructive and made to be meaningful to liven up teaching methods that are normally considered dull (Zirawaga, Olusanya, & Maduki 2017). Ziragawa, Olusanya, & Maduki (2017) continue to inform that an education system, such as GBL quiz usually used the exciting method of educational gamification to help students to easily remember the lessons as well as gain useful information from the visual and computer literacy offered. In other words, GBL quiz that has a video game-like tutorial can influence students not only to be skillful in answering quizzes but in operating a PC or a laptop better. Those skills are not only useful to do academic tasks but also for the student's future employment.

As mentioned in the previous section, an education system that used the method of video games will make students skillful in operating a PC. The indicators start from taking the tutorials until the stage where they can handle things on their own and are referred to as game masters. This research article assumed that the skills learned from doing a video game tutorial are also applicable in circumstances outside the video game's gameplay. As proof, the historical backstory of a video game's event is understood to be useful for history classes. The English language instructions used in playing video games are also useful in increasing the English vocabulary. Players are often unaware that they are learning English language while playing a game. In other words, if a player does not understand what the vocabulary 'to jump', 'exit', or 'open' means in instruction, then the player could not have mastered the gameplay. It is thus, necessary that a video game player knows some English vocabulary to play a game.

Learning by doing is also evident in the way players make use of a video game's controls, which may contribute to a betterment of the player's eyes and hand coordination or mechanic mastery. This mastery can increase the mental-to-physical processes of the players. Students doing a GBL quiz may, therefore, be those that could answer all of the quiz questions well with the limited time given (Ziragawa, Olusanya, & Maduki, 2017).

C. Advantages of Doing Technology-Based Projects

Gamification is a technology-based project that can provide some

advantages for students. Murniati & Sanjaya (2017) mentioned that in their research of assessing the students' attitude towards the technology-based projects for their classes, there have been indications that the interest and creativity of the students have increased. Media technology platforms, such as Twitter, YouTube, and also BlogSpot have become a place where students can learn as well as enjoy the social world created by those platforms. Proof of their enjoyment was shown in their comments, sharing, liking, subscribing to the platform, and making their own video project, such as shown in a Speaking project below, where two students make use of free cartoon animations to feed in their dialog on 'asking for something' (see Figure 3).
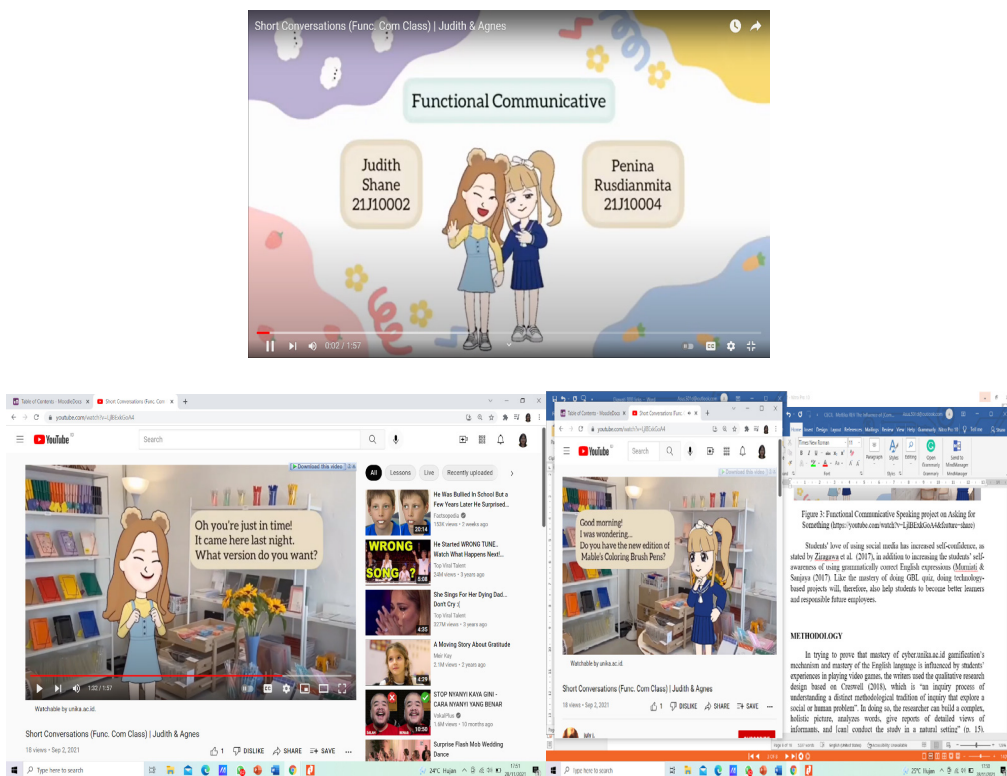
Figure 3: *Functional Communicative Speaking project on Asking for Something (https://youtube.com/watch?v=LjlBExkGoA4&feature=share)*

Students' love of using social media has increased self-confidence, as stated by Ziragawa, Olusanya, & Maduki (2017), in addition to increasing the students' self-awareness of using grammatically correct English expressions (Murniati &

Sanjaya, 2017). Like the mastery of doing GBL quiz, doing technology-based projects will, therefore, also help students to become better learners and responsible future employees.

METHODOLOGY

In trying to prove that mastery of cyber.unika.ac.id gamification's mechanism and mastery of the English language is influenced by students' experiences in playing video games, the writers used a qualitative research design based on Creswell (2018), which is "an inquiry process of understanding a distinct methodological tradition of inquiry that explore a social or human problem". In doing so, researchers can build a complex, holistic picture, analyzes words, give reports of detailed views of informants, and [can] conduct the study in a natural setting" (p. 15). Creswell further explains that in the data analysis, the activity would include the gathering of data by collecting results from respondents, interpreting the data, and writing descriptive reports on the results.

In doing this research, a questionnaire was responded by 25 students from batch 2021, who enrolled in the English Department from the Faculty of Language and Arts, of Soegijapranata Catholic University. Their age group was within the range of 19-23 years old. Results from the questionnaire and interview were categorized and analyzed as data to answer the research question on (1) how has played video games helped increase educational gamification mastery, and (2) how the English instructions have increased English vocabulary mastery.

RESULTS AND DISCUSSIONS

The research result discussed in the following paragraphs provides information on how playing video games is advantageous for the student's educational gamification mastery in cyber.unika.ac.id. Using the information from Brenner-Adams (2018) and Ziragawa, Olusanya, & Maduki (2017), the following answers obtained from the questionnaire and interview given to the 25 students, show that there was an influence on the interest and knowledge of video games'

mechanics, for the better memory span that enhanced the mastery of the university's educational gamification. Details of the research result are discussed below.

A. Interest Influence

When someone is interested in something, that someone will usually have the enthusiasm to repeat an activity over and over again (see Figure 4). This is true for both video games and educational gamification play. Question 5 from the questionnaire, which asked whether or not video game tutorials have increased students' confidence were agreed by as many as 96.7% of the students (see Figure 5).
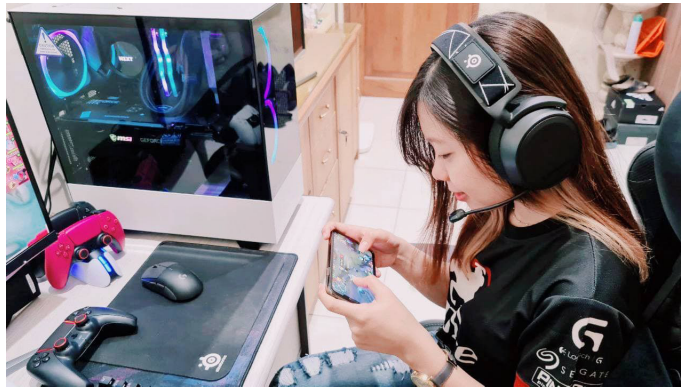

Figure 4: *A game player is interested in trying out a game tutorial*

This data proves that doing something new to self-improve is a factor that can influence someone's continued interest.

Apakah *tutorial* yang anda alami baik dalam sebuah video game ataupun gamifikasi dapat meningkatkan rasa percaya diri anda untuk men*coba-coba sesuatu yang baru (peningkatan diri)?
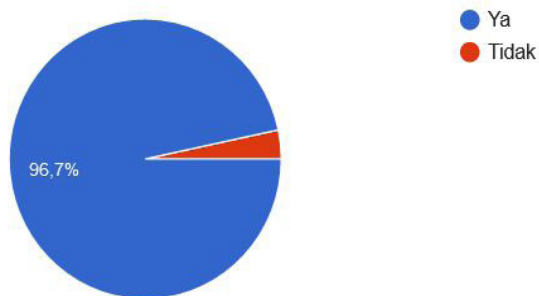
25 jawaban

- Ya
- Tidak

96,7%

Figure 5: Trying new things (game tutorials) increased self-confidence

Meanwhile, question number 6 asked, "Does the tutorial you experience either in a video game or gamification make you more interested and not boring so that in the end you are encouraged to continue?" there were as many as 100% of the research subjects that agreed that their high interest about the game has influenced them to play until the end (see Figure 6).
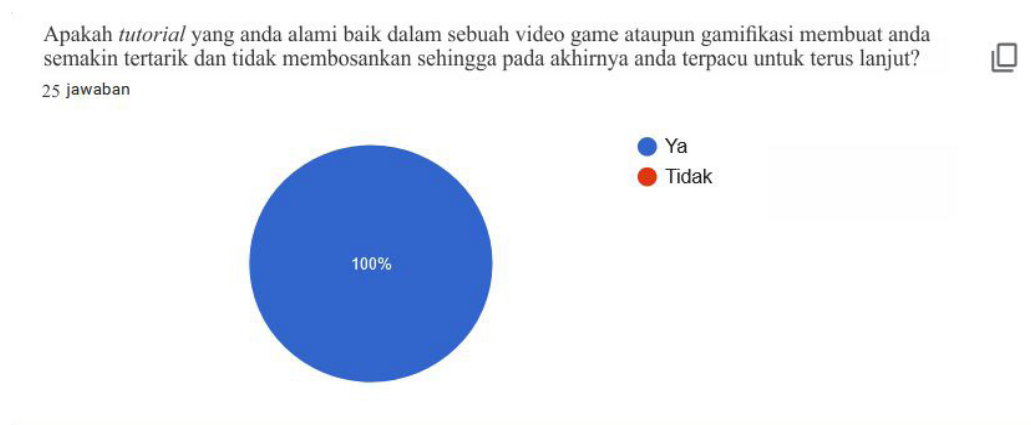

Apakah *tutorial* yang anda alami baik dalam sebuah video game ataupun gamifikasi membuat anda semakin tertarik dan tidak membosankan sehingga pada akhirnya anda terpacu untuk terus lanjut?

25 jawaban

- Ya
- Tidak

100%

Figure 6: *Tutorials increase interest*

The answers above confirmed Ziragawa et al. (2017) who stated that video games are constructive and meaningful because they can liven up teaching methods that are normally considered boring and dull. In other words, providing a tutorial for video games became essential because it shapes the player's motivation and interest in playing the game from start till end. If players were not influenced from the very start to enjoy the game, then the players would have no interest at all in doing the challenges offered by the game developers.

By comparison, in a university, a lecturer is usually given the chance to give an introductory lecture about the course he/ she will be giving. The syllabus with information on which topics or activities is comparable to a video game tutorial because it showed a list of topics with how many percent a student would have done the course, in addition to what students should do in preparation to pass the course. For example, at the beginning of the Pronunciation for Accuracy course, it was informed that students would be learning how to pronounce vowels,

diphthongs, and consonants by the use of some key phonetic transcriptions. To exemplify, although in an English spelling the letter is 'a' there are four phonetic transcriptions to choose from to denote the sound it produces, ie. /æ, ɪ, ɪɪ ɪ/ for either the words 'apple, ago, arm or up'. With students knowing from the beginning that tests or quizzes given to them will make them concentrate on a particular phonetic transcription like informed during the introduction of the course, students will naturally feel at ease and want to follow the course and do the test well, when available. Thus, in following the instruction of a test, which asked them to, for example, drag and drop choices of first syllable vowel sound symbols to the word 'and' like shown in Figure 7, a student will naturally try to remember how the pronunciation of the first vowel matches with which phonetic transcription is appropriate for the answer.
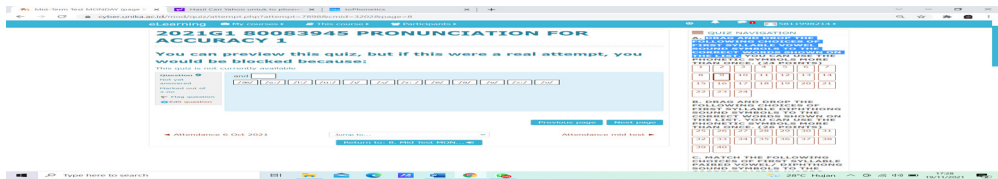

Figure 7: *vowel transcription choices for 'and'*

Game players often give attention to details to figure out what other challenges are in store for them. Thus, by understanding what is needed to answer the quiz for Figure 7 above, a game player student who is used to procrastinating what sort of other questions could be given for him/ her, would usually also have an idea of the next quiz challenge.
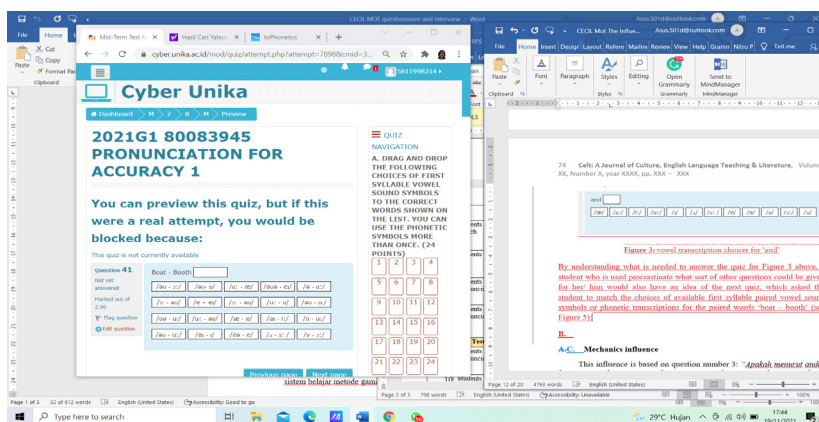

Figure 8: *paired vowel transcription choices for 'boat - booth'*

Thus, when asked to match the choices of available first syllable paired vowel sound symbols or phonetic transcriptions for the paired words 'boat – booth' (see Figure 8), the student could figure out what would be the best answer for that particular question.

B. Memory Influence

Understanding that tutorials in video games and gamification learning are meant for the players and users to understand and familiarize themselves with the methods used, the question in number 4: "With the skills, you master from tutorials and the operation of computer devices that you receive from playing games, does it help you to easily remember materials learned from class?", had 93.1% of the research subjects claim that they can easily remember their class lessons because instructions and examples given in class was as clear as doing tutorials from video game plays (see Figure 9).
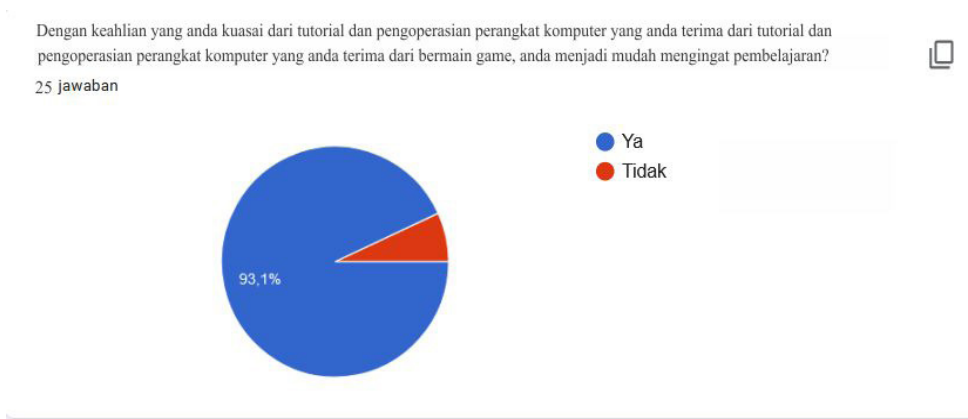
Dengan keahlian yang anda kuasai dari tutorial dan pengoperasian perangkat komputer yang anda terima dari tutorial dan pengoperasian perangkat komputer yang anda terima dari bermain game, anda menjadi mudah mengingat pembelajaran?

25 jawaban

Ya
Tidak

93,1%

Figure 9: *Tutorials and quiz instructions give the influence to emember previous lessons learned*

A. A. Mechanic Mastery influence

Question number 3 asked: "Do you think playing video games by learning through its tutorials affect your ability to operate a computer device?). For this question, as many as 100% of the research subjects agreed that by playing video games, their skills of operating the computer device from doing gamification were increased. This finding was supported by an interviewee, who stated that mastering the mechanics from video games can affect the mastering of a computer device's

operation.

> **Interviewer**: *"Ya jadi seperti cyber unika. Apakah menurut anda pengalaman mengikuti sebuah tutorial dalam video game mempengaruhi tingkat keahlian anda ketika belajar dengan metode gamifikasi? Apakah lebih mudah bagi anda menguasai mekanisme belajar dengan metode gamifikasi?"* (Yes, so like in cyber. unika.ac.id.... Do you think the experience of following a tutorial in a video game affected your skill level of learning with gamification methods? Was it easier for you to master the mechanisms of learning by gamification?"

> **Interviewee**: *"Mekanisme jadi kayak mekanik ya? Jadi gini, kalo dalam sebuah video game, yang namanya tutorial hanya menjelaskan mengenai basic controlnya saja. Kalau mau jadi hebat juga harus mengadakan percobaan sendiri, harus coba-coba sendiri makanya kalau di game kan ada yang namanya adu mekanik ketika online untuk menunjukan siapa yang paling sering mencoba-coba sehingga mekaniknya kuat."* ("Do you mean the mechanism of becoming a mechanic? Well, in a video game, the tutorial usually explains about the basic control only. So, if you want to be a great player, you will need to have the courage to do some experiments -you have to try a number of things yourself . In a game, there is what is called a mechanical fighting. It is the time to show off, whoever online has the courage to do the most attempts of doing things, so the gaming mechanics become strong.")

The above interview responses showed that the more a game player tried out new things, the better that player was in completing challenging adventures. This, thereby also meant that the same student would have had good strategies to undertake any tasks given in educational gamification, too.

In principle, if someone has mastered the mechanics of gamification, it meant that he/ she was able to use the correct buttons or keyboards swiftly, appropriately, and accurately. This was confirmed with the following interview answer, which stated: *"Kalau berdasarkan prinsip tentunya juga bisa meski implementasinya berbeda. Dengan prinsip yang mengandalkan mekanisme pengoperasian mungkin bisa dilihat dari kecepatan, ketepatan dan rasa percaya diri, tentu juga sangat mempengaruhi dan bahkan meningkatkan kemampuan belajar di gamifikasi"* (If based on principle, it could also

be true, even though the implementation is different. With the principle that players rely on operating the mechanisms, it may be seen from the speed, accuracy and confidence of the players, which greatly affect and even improve the ability to learn with gamification")

Conducting a further investigation of the use of tutorials in both video games and educational gamification platforms, it was also found that video game tutorials used both visuals and words as indicators to do advance use of a computer's keyboards. As seen from Figure 10 a player's fingers were trained to press certain buttons by following the pictures and instructions given by the game tutor. In this way, the player would know when he/ she should use the right index or mid finger to do certain actions, and at the same time is given the idea that he/ she could use the left fingers to do other kinds of action, like 'jump, drop or give an attack', in a strictly limited time.
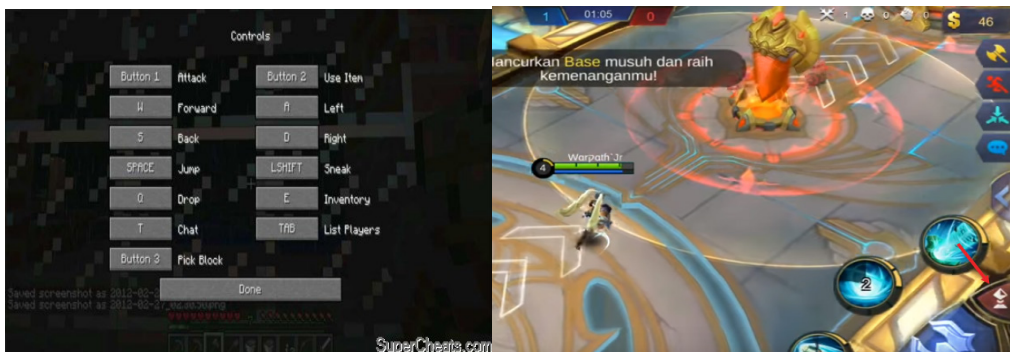

Figure 10: *A video game tutorial on Mobile Legends with buttons for the right and left fingers to handle while playing a game*

If the player could not keep up with the pace given by the tutor, then the chances of mastering the game mechanics would be low and eventually produce a loss in the game.

It is interesting to note that the instructions for which button to push is written in English. In one of the buttons, there is also an opportunity to live chat with a game opponent or member of a game team using English language. Playing video games, thus, necessitates players to actively use the English language. For

this reason, game players would not only limit themselves to playing with those from Indonesia but other countries that eventually force them to use their English actively.

The mechanic mastery of playing video games' condition had a similar resemblance with educational gamification as seen in Figure 11. Often, a lecturer would post up a quiz with several restrictions attached to it. For example, in cyber. unika.ac.id, the restrictions access could be from giving a time limit of doing the quiz, whether date or hour wise. In each question, the lecturer could also make the setting harder for students by giving only a few seconds to answer each question. To make it more difficult, the quiz could be set also for students to not know directly if he/ she has answered correctly or not during the attempt by applying the condition that a student could only know 25% possibility of the correct answer rather than the 50%. Setting up a 50% was usually not favorable because the student would notice that if one possibility was wrong then he/ she can choose the other answer, which turned out to be the right answer.
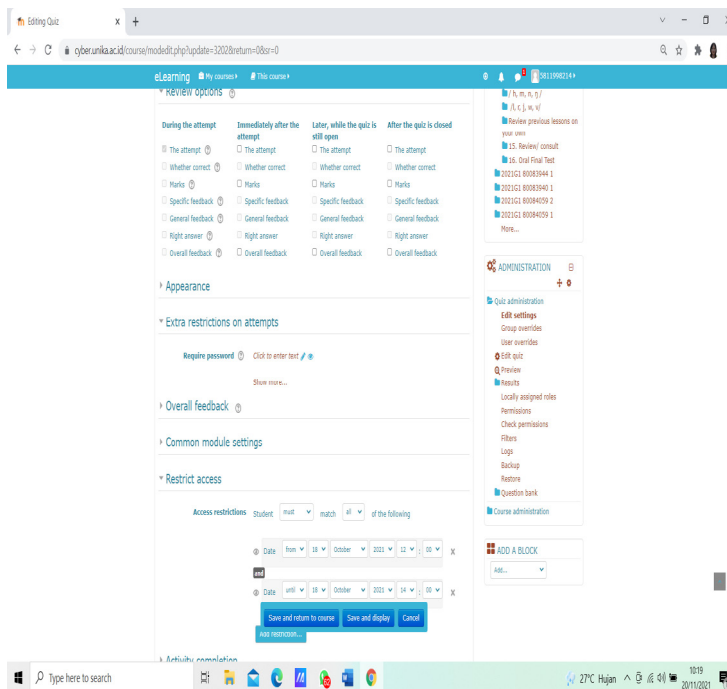

Figure 11: *Moodle's educational gamification restriction for cyber.unika.ac.id*

A 50 to 50 opportunity setting for the answer choice of a quiz as informed above would be faulty. Thus, a lecturer would be careful as to set up the gamification with a system that unenabled students to reattempt the quiz. A lecturer would even add further restrictions for students to not see whether the choice of answers was correct or wrong, even after the quiz is closed. If, however, needed, a lecturer could allow a student to do another attempt, but only whenever the lecturer gave him/ her the correct password.

CONCLUSION

This article proved that research on the influence of video gameplay was advantageous on increasing university students' capability in doing educational gamification, such as that used for cyber.unika.ac.id. In the research discussion, it was found that the better scores a video game player student may have been due to the continued interest in the course ever since the beginning, which was equal to the high interest in learning about a video game from a tutorial given. Once a video game player and at the same time an academic student is interested in the game, of course, that student would usually have a high motivation to remember what was learned. Thus, as a consequence, tutorials or instructions helped them to recall their memory.

In addition, the tutorial exercise, which trained video game players to master the keyboard mechanisms were also influential to their role as students who should know how to make good use of a limited time to 'drag and drop' or click buttons that provide the correct answers of an academic quiz. Last but not least, the English instructions available in video games have helped students to increase their English vocabulary.

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