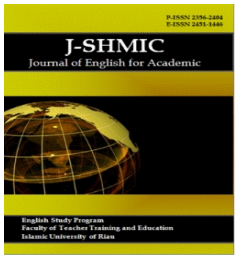

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A Survey Approach to Investigate the Pereived Effects of Gamification Tools on the English Process among Vocational Students

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ABSTRACT

Gamification is being recognized as a new way to teach that uses game design elements in the classroom to get students more interested and motivated. This study aims to explore vocational students' perceptions of the use of gamification tools such as Kahoot, Quizizz, Duolingo, Edmodo, and Wordwall in English language learning. A descriptive quatitative approach was employed as as research method. Data were collected through an online questionnaire in the form of likert scale which is distributed via Google Forms to 38 students from three study programs at Politeknik Negeri Bengkalis who had used gamification tools in their English learning. The data were analyzed using descriptive and inferential statistics. The results show that 73.7% of students felt more motivated and engaged, 62.1% were actively involved, 65% expanded their vocabulary, and 55.3% improved their grammar skills. These findings indicate that the use of gamification tools has a positive impact on vocational students' motivation and English language proficiency.

KEYWORDS
Classroom gamification tools, vocational students, perception, English learning

ABSTRAK

Gamifikasi diakui sebagai metode pembelajaran baru yang menggunakan elemen desain permainan di dalam kelas untuk membuat siswa lebih tertarik dan termotivasi. Penelitian ini bertujuan untuk mengeksplorasi persepsi mahasiswa vokasi terhadap penggunaan alat gamifikasi seperti Kahoot, Quizizz, Duolingo, Edmodo, dan Wordwall dalam pembelajaran bahasa Inggris. Pendekatan penelitian yang digunakan adalah deskriptif kuantitatif. Data dikumpulkan melalui kuesioner daring dalam bentuk skala likert yang didistribusikan via Google Forms kepada 38 mahasiswa dari tiga program studi di Politeknik Negeri Bengkalis yang telah menggunakan alat gamifikasi dalam pembelajaran bahasa Inggris mereka. Data dianalisis menggunakan statistik deskriptif dan inferensial. Hasil penelitian menunjukkan bahwa 73,7% mahasiswa merasa lebih termotivasi dan terlibat, 62,1% aktif berpartisipasi, 65% memperluas kosakata mereka, dan 55,3% meningkatkan kemampuan tata bahasa mereka. Temuan ini menunjukkan bahwa penggunaan alat gamifikasi berdampak positif terhadap motivasi dan kemampuan bahasa Inggris mahasiswa vokasi.

KATA KUNCI
Alat gamifikasi kelas; mahasiwa vokasi; persepsi; pembelajaran Bahasa Inggris

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INTRODUCTION

Particularly with the growth of digital technologies in education, our methods of teaching and learning have evolved considerably in recent years. Among the various developments, gamification bringing aspects from games like points, badges, leaderboards, and friendly competitions into the classroom has become popular for making learning more fun and interesting. Tsay et al. (2020) states that gamification has become a possible way to increase student engagement and involvement as classes move from conventional lectures to more interactive and student-centered approaches. According to Shaffer, Halverson, Squire, and Gee (2005), game-based learning primarily emphasizes the fact that it is a form of game play with predetermined learning outcomes of some kind (Shaffer, 2006)

Learning techniques that are active and interesting are especially crucial for vocational students, whose education emphasizes practical skills and real-world relevance and this. aligns with findings from research on gamification and game-based learning in vocational education stated by F. Dahalan et al. (2023). The purpose of game-based learning is to strike a balance between learning through the use of games and learning about theoretical knowledge. Students are able to explore rigorous learning environments and concepts as well as targeted learning objectives through the use of game-based learning (Chen et al., 2018). This is particularly beneficial in the context of the English-language learning environment (Mozelius & Hettiarachchi, 2017).

Many of these stuents therefore, lack motivation, particularly in language study, and may not always do well in traditional classrooms. Gamified technologies like Kahoot, Quizizz, Duolingo, and Wordwall have been added to English courses to help students of all ages find more enjoyable and engaging sessions (Huang, Hew, and Lo 2019) . The content of a learning game significantly influences its design and elements. Four functions of games can be considered: preparing for future learning, teaching new knowledge and skills, practicing and reinforcing existing knowledge, and developing 21st-century skills (Plass, 2015). These functions provide students with shared experiences, new knowledge, opportunities to practice existing cognitive skills, and opportunities to develop complex socioemotional skills

Though these tools are being used more and more, little study Hung et al. (2022), Mustikasari et al. (2024), and Zhao and Zhang (2020) currently exists on how vocational students really see their influence. So far, most research have focused on university or general education settings. Consequently, we know very little about how these digital tools influence vocational program students—those who often learn differently and have particular educational obstacles. Understanding their points of view is absolutely important since when students feel included and supported, they are more likely to study successfully. Game-based learning leverages interactive and motivational elements to enhance educational outcomes (Gee, 2008). Past studies have shown that tools like Kahoot! and Duolingo can increase student motivation and retention (Deterding et al., 2011) (Prensky, 2001). However, student perception as a measurable outcome is less frequently explored, especially in the context of university-level education

This paper aims to investigate vocational students' views on the application of gamification techniques in their English learning path. The study emphasizes themes including motivation, attention, skill development, teamwork, and general learning performance using descriptive quantitative method. Over the past 10 years, there were studies

have consistently proven that gamification is helpful in vocational English teaching. This study adds to that body of evidence. Hung et al. (2022) did a study that used both qualitative and quantitative methodologies and found that gamified learning made vocational students much more motivated and involved. This, in turn, helped them learn how to speak the language. Kurnia et al. (2021) did a quasi-experimental study utilizing Kahoot in vocational English settings and discovered that students liked and remembered more vocabulary when they used Kahoot than when they used normal teaching methods. There were an extra resource to support these arguments surveyed and talked to students to see what they thought of Duolingo (Sakkir & Syamsuddin, 2023). The results showed that students were more motivated to study the language outside of class and that they studied better on their own. Zhao and Zhang (2020) showed in a randomized controlled trial that gamified quiz applications helped vocational students learn better together and pay more attention while also increasing their listening and speaking skills. Students' total academic performance is positively impacted by the usage of gamification as a learning approach, which also improves their soft skills (Mustikasari et al., 2024). These are all very important skills to have in today's environment. These studies give us significant proof that gamification improves vocational students' learning in terms of motivation, engagement, skill development, and overall performance. The current study looks on how vocational students feel about gamified English training. This gives that study the base it need.

Based on the explanation above, this study aims to provide useful ideas for instructors, curriculum designers, and legislators trying to make English instruction in vocational schools more efficient, relevant, and pleasant by hearing the voices of the students not only about one specific gamification tools but all types of gamification tools which is used during English learning and how those tools give significant impact to their motivation and cognitive skills.

METHOD

This study adapted descriptive quantitative design to explore vocational students' perceptions of how gamification tools influence their learning experiences. A descriptive quantitative method is ideal for reaching a broad group of participants and systematically collecting their opinions, experiences, and attitudes. The focus of this design is to understand how students perceive the effects of gamification in terms of engagement, motivation, cognitive skill development, collaboration, and academic achievement.

In this study, there were 38 students of Politeknik Negeri Bengkalis who selected purposively from three different study programs namely English for Business Communication and Professional, Civil Engineering and Informatics Engineering. The students were chosen because they have had experiences in using gamification tools in English learning.

The data used in this study were primary data taken from online questionnaire using google form. There were some types of data collected which consisted of nominal data (study program participants, experience using gamification tools, gender), ordinal data (levels of self-rated motivation or engagement), interval data (scores on likert-scale items), ratio data (age of participant, number of times students used gamification tools), quantitative data (mean score of perception categories, frequency and percentage of agreement levels in questionnaire items), and qualitative data descriptions of how gamified tools that affect learning. The questionnaire indicators were carefully adapted from validated instruments

commonly used in gamification and educational research to measure key dimensions such as motivation, engagement, cognitive skill development, and English language proficiency. This adaptation ensured the questionnaire's relevance and reliability in capturing vocational students' perceptions of gamified English learning (Cabrera et al., 2022; Kharizmi, 2024).

Data Collecting Technique, the data were collected through questionnaire which was distributed using google form to higher vocational students of Politeknik Negeri Bengkalis from three different study programs (English for Business Communication and professional, Civil Engineering, and Informatics Engineering). The questionnaire consisted of 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) to measure the students' perception on several aspects incuding motivation, engagement, cognitive skills, and English proficiency.

Data Analysis Technique, the collected data then was analyzed using descriptive analysis. To conclude the students' perception, descriptive statistics were utilized, including percentages, mean scores, and frequency counts. For instance, the frequency was analysed with which students utilized gamified tools and their perceptions of the learning outcomes. Likert-scale items in a structured questionnaire on a scale from 1 (strongly disagree) to 5 (strongly agree) were analysed by calculating the average score for each statement. The data then was interpreted on describing patterns and factors based the participants' responses.

FINDING AND DISCUSSION

The research results were gathered through an analysis of students' replies to questionnaires. The findings offer insights into students' views the effects of the use of gamification tools on English learning process among vocational students. There were 38 students who have experienced using gamification tools as learning media during an English classroom were asked to fill the questionnaire which consist of 12 questions. The data are categorised into five classifications based on the replies given and are organised according to the designated values. The response categories comprise: strongly disagree (SD), disagree (D), neutral (N), agree (A), and strongly agree (SA). The results of this questionnaire suggest that the majority of students have extremely positive and favourable perceptions of the use of gamification during the learning processes. According to the preceding data, there are seven primary students perceptions regarding the use of gamification tools namely exposure to gamification in English learning**,** perception of engagement and motivation**,** cognitive and skill development**,** collaboration and social learning, performance and learning outcomes**,** challenges and limitations**,** future use and recommendations**.**

Table 1. Students' Perception of the Effects of Gamification Tools on English Learning Process among Vocational Students

Section	Statements	SD	D	N	A	SA
Exposure to Gamification in English Learning	Have you ever used gamification tools in learning English?	0%	0%	0%	0%	100%
	What types of gamification tools have you used? (Select all that apply)					

	How often do you use gamification tools to learn English?					
Perception of Engagement and Motivation	Gamification tools make learning English more fun and interesting.	0%	2.6%	7.9%	15.8%	73.7%
	The use of game elements helps me stay focused during English lessons	2.6%	0%	5.3%	42.1%	50%
	Gamification increases my motivation to participate in English lessons	2.6%	0%	5.3%	44.7%	47.4%
	I enjoy competing with classmates through gamified English activities	2.6%	0%	18.4%	28.9%	50%
Cognitive and Skill Development	Gamification helps me improve my English vocabulary	2.6%	0%	5.3%	65.8%	26.3%
	My grammar skills improve through gamified activities.	0%	3.8%	19.2%	23.1%	53.9%
	Gamification tools make it easier for me to understand abstract or difficult English topics.	0%	0%	28.9%	55.3%	15.8%
Collaboration and Social Learning	Gamification activities help me communicate more often with classmates in English. Gamification encourages peer-to-peer learning in English class.	2.6%	2.6%	47.4%	42.1%	5.3%
	Working in teams during gamified tasks improves my speaking skills.	0%	0%	31.6%	60.5%	7.9%
Performance and Learning Outcomes	I find it easier to remember English lessons when they include games.	2.7%	2.7%	5.4%	54.1%	35.1%
	Gamification helps improve my test or quiz scores in English	0%	0%	35.1%	48.6%	16.2%

Challenges and Limitations	Sometimes gamification distracts me from actual learning goals.	0%	0%	43.2%	16.2%	0%
	Technical issues (e.g., internet, device compatibility) hinder the smooth use of gamification tools.	0%	5.4%	16.2%	62.2%	16.2%
	Not all gamification tools suit my learning style.	0%	16.2%	45.9%	27%	10.8%
Future Use and Recommendations	I want my lecturers to use gamification more often in English learning	2.7%	0%	21.6%	56.8%	18.9%
Exposure To Gamification in English Learning	I am willing to try new gamification tools to improve my English skills.	2.7%	0%	16.2%	56.8%	24.3%

The starting question of the questionnaire was about students' self reported English level proficiency. The result shows that most of the students identify themselves as beginner (63.2%), with some at an intermediate (36.8%) level, and none considered advanced. It indicates that almost of the students in higher vocational education still has restricted abilities in grammatical knowledge, vocabulary, basic communication even in academic writing. Therefore, developing and implementing interactive material and media should be prioritized in teaching and learning processes. The next item shows that all the research subject has experienced using the gamification tools as learning media in English class. The type of gamification tools that students frequently used and the result shows that the whole sample has employed gamification techniques to improve their English language skills. With 71.1% usage, Kahoot, Quizizz, and Duolingo are the most popular tools. Edmodo(65.8%), Wordwall(65.8%), and others are among the various tools. This distribution shows that they have a lot of gamified tools in their learning environments, but the choices are not all the same. The fact that these technologies are only utilised sometimes illustrates that gamification should be employed in a balanced way, so that it doesn't overwhelm pupils and adds to traditional education.

The next items asked how often they used the tools and the vast majority of students (65.8% to be exact) utilize gamification technologies on occasion, with 6% making heavy use and 1% making constant use. This distribution demonstrates that gamification has been effectively implemented in the classroom, despite the fact that it is more frequently employed as a supplement than as a standalone technique. A significant number of individuals do not utilise the service frequently, which is consistent with Huang et al.) found that occasional gamification keeps students interested without tiring them out. There were none "Never" answers, which is different from what numerous research in the field of education have found. Vocational students can be more responsive to gamified technologies because they naturally like to learn by doing things and working with others.

These results show that gamification is quite popular, but it is limited so that people don't get addicted to it. Teachers could use these strategies to carefully add gamification to The gamification of searching, asserts that the use of game components is crucial for enhancing engagement in learning. These gamification tools make learning more interesting and competitive, people are most invested when they're doing something that's both fun and difficult; yet, using it too often can cause boredom (Mirvis & Csikszentmihalyi, 1991).

Perception of Engagement and Motivation

The next perception was asking about students' engagement and motivation. The item asked about "gamification tools make learning English more fun and interesting". The data shows that 73.7% of students think that gamification makes learning that much more of both. This is consistent with research showing that gamification improves engagement by incorporating elements like competition, points, incentives, and instant feedback (Deterding et al., 2011; Hamari et al., 2014). Deci and Ryan's (2022) states that when people are actively involved in learning that they enjoy, their intrinsic motivation improves. Gamification improves engagement and knowledge retention, according to a meta-analysis by Hamari et al. (2014). The item number 5 asked about the ability to concentrate on lessons, half of the students (50%) surveyed said that incorporating gaming elements into their lessons helped them concentrate better. Gamified learning has demonstrated an increase in students' ability to focus and pay attention, which is consistent with Cognitive Load Theory, which posits that pupils can experience less mental strain when exposed to engaging components. The item number 6 ask about the impact of gamification in motivation. The result shows 62.1% of students report that gamification makes them want to actively engage in class discussions.

Cognitive and Skill Development

Further primary questions were asking about students' cognitive and skill development. The data obtained from the students' perception shows 65% of students felt that gamification is useful for expanding their English vocabulary and 55.3% felt that gamified activities helped them improve their grammar. This result explains that learning a language through active production (like in a game) can improve vocabulary and long-term memory. In addition, interaction in difficult circumstances, like games, can speed up grammar acquisition (Bellal, 2015). Grammar improvement is also noticed by 71.1% of people (Agree + Strongly Agree). The fact that 28.9% were agnostic implies that gamification might work better with vocabulary than grammar. Although gamified grammar exercises necessitate organised feedback, Hwang, Hsu, and Chen (2017) discovered that they improve accuracy. The use of gamification is also helpful for more difficult topics and it can be seen from the data that 71.1% students (Agree + Strongly Agree) and 28.9% of participants were neutral because the content or game design was different. Plass and Homer (2020) say that the interactive and visual parts of games help people learn complicated subjects. Kiili (2005) found that playing games that demand players to solve difficulties helps them understand difficult ideas better. It can be concluded that the use of gamification works for vocational students' especially for beginner level since gamification lets students learn practical, everyday words in a fun, low-pressure setting.

Collaboration and Social Learning

The item about collaboration and social learning shows that there were 60,5% of students agree that gamification helps them communicate more often with classmates in English, improving their speaking skills. Utilizing gamification in English learning classroom can enhance their confidence and work with teamwork to accomplish their task to achieve better score and get good feedback from the tutor. Through achieving common objectives, students gained self-assurance and learnt to work together (Lantolf, 2000).

Performance and Learning Outcomes

According to the students' performance and learning outcomes, they (54.1%) felt that memorizing words and applying them in oral and written communication is easier after learning English by playing gamification tools. Visual and interactive elements, such as those found in gamification, can accelerate memory processes (Booth, 2006). Gamification tools also helps improve their exam or quiz scores in English and this could be seen that 48.6% of students feel it. The item number 12 asks about challenges and limitation of using gamification tools. This suggests gamified learning not only boosts enjoyment and engagement but also translates into measurable academic achievements, reinforcing its educational value.

Challenges and Limitations

The findings of the survey provide a wealth of information regarding the manner in which gamification functions in vocational education as well as the challenges that it faces. People were cautious about how to use gamification, despite the fact that it may potentially increase their level of interest.Based on the Cognitive Load Theory, having an excessive number of features can make it difficult to learn some things. A significant number of participants, forty-five percent, said that the game features occasionally made it more difficult to learn. 62.2% of participants reported that technical concerns, such as internet connection and device compatibility, made it hard to work effectively. This was a significant challenge given the nature of the situation. The emphasis that the Technology Acceptance Model places on how simple it is to use is supported by this aspect. In addition, there were emotional ramifications; almost thirty percent of the students reported that they came away from the competition feeling either afraid or let down. This is consistent with the Self-Determination Theory's emphasis on psychological requirements. Perhaps the most significant finding was that 45.9% of respondents stated that the gamification tools they were using did not correspond to the way in which they learnt most effectively. In accordance with the Learning Styles Theory, it is essential to personalise one's experiences, and this is an excellent illustration of that recommendation. These findings indicate that gamification can be beneficial; however, this is only the case if it is meticulously planned to provide the following benefits: 1) maintain the focus on learning goals; 2) ensure that the technical infrastructure is reliable; 3) incorporate elements of cooperation in order to reduce stress; and 4) provide flexible formats in order to cater to the requirements of a variety of learners. Both Dichev and Dicheva (2017) and Sailer et al. (2017) demonstrate that the most effective use of gamification is when it is not only well-planned but also well-integrated. In order to discover the most effective method of maintaining students' attention while also assisting them in acquiring new abilities, small groups should conduct experiments with gamification tools for vocational education and then make adjustments based on the feedback they receive over the course of time.

Future Use and Recommendations

The questions about the preference for more frequent the students should use the media indicates that the majority of students want their lecturers to use gamification more frequently in English lessons (56.8% agree). The students' expectations of the benefits of gamification in learning drive their desire to use it more often (Ajzen, 2012). Based on the result of the explanation above, generally students have positive responses toward the use of gamification tools as English learning media. This aligns with the previous studies about the use of gamification tools on English learning processes undertaken by (Sulaiman & Ramadhana, 2022)(Huang et al., 2019)(Doğan, 2023)(Wu, 2015). The result from all item of questions given through questionnaire, classically students preferred strongly agree and agree with the statement, this means all respondents who experienced using gamification tools during English learning processes agree that it could enhances and improves their motivation, engagement, their English competencies and their cognitive skill.

CONCLUSION

The results of this research indicated gamification tools play important role in language learning. It was shown that students' positive perception toward gamification tools improved students' English competencies and cognitive skills and motivated students to engage in English learning process. These tools can be a powerful integrated game-based strategies that create interactive learning environment, build students' vocabulary and active participation. There are some suggestions proposed for further studies such as for teachers and lecturers, they should help students learning English in interactive ways of learning and deepen language understanding. In addition, for institutions give training to educators to use interactive gamification tools and or further researcher, they could examine the effectiveness of the educational tools to improve students' language proficiency.

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