

The EFL Students' Experiences with Gamified Learning in Vocational Education: Automotive Students' Perspectives

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Abstract

Instruction in English as a Foreign Language (EFL) within vocational education encounters numerous challenges, especially with students' participation and the integration of technology. Numerous vocational high school students prioritize studies relevant to their major rather than English. Therefore, to guarantee the efficacy of English acquisition, new learning strategies for instance gamification must be implemented to increase the students' participations. This study utilized a descriptive quantitative survey to investigate the experiences of vocational automotive students engaged in gamified learning. This study included 117 automotive students who used gamification platforms including Quizizz, Blooket, and Bamboozle. Data was obtained from four Likert-scale questionnaires and analyzed in Microsoft Excel. There are two research enquiries used in this study: (1) How does gamification influence students' engagement in learning English in vocational high school? (2) How effective is gamification in improving students' motivation and learning outcomes in English lessons? Results of this study found that gamification in English teaching significantly enhanced students' engagement and confidence. Then, gamification in English lessons is an efficient teaching strategy to improve vocational students' motivation, teamwork, engagement, and learning outcomes. There is substantial student support for its integration into other lessons. The researchers suggest that future research use a mixed-methods approach to measure and thoroughly examine vocational high school students' experiences with gamified learning.

Keywords: EFL Students' Experience; Gamified Learning; Vocational Education.

In recent decades, English as a Foreign Language (EFL) instruction has encountered major obstacles, particularly in vocational education contexts. EFL instruction in vocational education contexts faces several challenges, including student engagement, teacher confidence, curriculum relevance, and technological integration. This research

focuses on two major obstacles, such as student engagement and technological integration. According to Purwati et al (2023), students have psychological factors like poor confidence along with inadequate motivation, which are major challenges when instructing foreign language learners in English at Indonesian vocational high school. In addition, teachers have limited

means of integration and the requirement for specific training on ICT-ELT integration demands rapid attention from educational institutions (Rodliyah, 2018).

Furthermore, Teaching English in vocational high schools requires a unique understanding of the subject matter, approach, and methodologies (Mulyah & Aminatun, 2020). English taught in vocational school is presumably more practical and less theoretical (Patria, 2022). However, the actual implementation of English lessons in vocational schools is in stark contrast, as vocational students often perceive English as irrelevant to their technical education, which decreases their motivation and interest in English lessons. Additionally, students' readiness to learn English in Indonesia remains well below expectations due to a lack of motivation (Putra & Priyatmojo, 2021). In addition, this problem is compounded by traditional teaching approaches that may fail to attract the attention of students who prefer practical and hands-on contexts. According to Pamungkas & Adi (2020) teachers should share the material by using media so that students are satisfied, relaxed, and can easily understand the topic. Therefore, teachers and researchers are actively exploring new pedagogical ways to improve language learning outcomes across vocational contexts, one of which is technology-based learning.

Technology-based learning strategies have been widely used, such as gamification. Gamification refers to the use of game elements (points, badges, leaderboards, rewards, challenges) to non-game environments, such as educational platforms to increase motivation and engagement. Gamified learning is one strategy that incorporates gaming features consisting of rewards, challenges, and progress monitoring into educational activities. According to Putra & Priyatmojo (2021), the main principle of gamification learning is to incorporate game components into teaching, as rather than game-based learning, which allows students to learn straight from the game.

Gamification has grown in popularity due to its ability to improve motivation, promote students' engagement, and provide a more dynamic and interesting learning environment. Putra & Priyatmojo (2021) also stated that this strategy is thought to improve students' motivation and engagement in the lesson. In EFL classrooms, language acquisition necessitates constant practice and active engagement; gamified learning allows for more dynamic and student-centered teaching. Gamification has emerged as a promising pedagogical tool, particularly in the context of motivating and engaging students in English language learning (Orak, 2025).

Nevertheless, while gamification has shown promising results in general education circumstances, its application and effectiveness in vocational education remain underexplored. Vocational students have distinct needs, including a preference for practical, real-world skills that align with their chosen professions. English educators in vocational education have to teach English components that are closely relevant to the students' main topics (Mulyah & Aminatun, 2020). Understanding how these learners experience and respond to gamified EFL learning is crucial for determining whether such strategies can address the gap between language learning and vocational skill development.

For addressing the gap of the study the researcher have reviewed several studies about gamification in line with this study. The descriptive qualitative study was conducted by Solikhah & Galuhwardani (2023) discovered that EFL students in higher education had a positive attitude and enthusiasm in studying English towards the introduction of Quizizz features by EFL students. Another study from Lofti et al (2021), which also determined the higher education EFL students' perceptions toward Kahoot revealed that it motivates students to learn, creates a great classroom environment, helps students focus, and provides positive competition, but the issue is an unreliable internet connection and a

inadequate discussion space for students and teachers. In her qualitative research, Hardianti (2024) discovered that gamification is an effective learning tool that combines student knowledge, ease of use, engagement, and motivation. A study conducted by (Putra & Priyatmojo (2021), gamification is an effective and enjoyable way to incorporate learning in the classroom. This teaching style fosters students to engage in more classroom activities, minimizes boredom by building a learning experience, and boosts learning motivation without interfering with students' comprehension of the topic. Furthermore, Fu et al (2021) with their qualitative study perceived that the engaging learning approaches given by gamified applications made learning more enjoyable, which was critical in strengthening students' learning habits and contributing to autonomous learning behaviors. Moreover, students also encounter difficulties when utilizing this technique including the allocation of time to finish the questions and communication between students.

Several studies have been undertaken to investigate the students' perspectives of gamification; however, no study has been identified in vocational education, especially majoring in the automotive field. Then, most of the studies utilize qualitative approach as their research method and lack of quantity in their result. The researcher utilized a quantitative approach with survey study to investigate vocational high school students' experiences with gamified learning in EFL lessons. This research seeks to convey significant knowledge into the viability and impact of gamification in vocational education domains by focusing on participants' perspectives, levels of engagement, and motivation, as well as learning outcomes. Finally, the findings add to the increasing body of scholarship on creative teaching approaches and make practical recommendations for educators. There are two research questions in this research, as follows: How does gamification influence students' engagement in learning English in vocational high school?

How effective is gamification in improving students' learning outcomes and motivation in English lessons?

Method

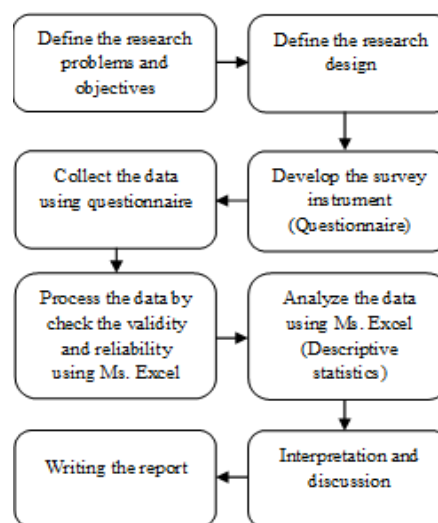
Participants of the study

Participants in the study are vocational high school students who experienced gamification tools as learning strategies in English lessons. This study included 117 students from an automotive major at a vocational high school in Malang.

Research design and procedures

This study employs a survey design with a descriptive quantitative approach. A survey method uses a sample of a population to create a quantitative or numerical description of its trends, attitudes, or opinions (Creswell, 2017). The sequence of the research procedure is shown in the figure below.

Figure 1. Research procedure



Data collection and analysis

The data was collected by questionnaire. This questionnaire employing four Likert-scale consists of 'Strongly disagreed', 'disagreed', 'agreed', and 'strongly disagreed'. The questionnaire items were adapted from Bicen & Kocakoyun (2018) and validated using Microsoft Excel to correlate the score of

the r-calculation of each question and r-table (0.334). The score of r-calculate obtained from a level of significance 0.05. According to the validity test results, items with r calculating > r table (0.334) are considered valid, meaning they effectively measure what they are intended to measure. Conversely, items with r calculated r table (0.334) are not valid and may need to be revised or removed from the questionnaire. There are two questions that are less than r-table. Then, the researchers decided to remove it from the questionnaire.

Then the researcher utilized Cronbach's alpha reliability test. Based on the reliability test analysis using Cronbach's Alpha, a value of 0.917323 was acquired, which indicates that the research instrument has very high reliability. This means that the instrument used is accurate and reliable in measuring the research variables. For analyzing the main data, the researcher utilized descriptive statistics analysis adapted from Mondal et al (2022). The steps include organizing the data, take summary statistics, and visualization & Interpretation.

Result

The Influence of gamification on students' engagement in learning English in vocational education

The findings about the influence of gamification on students' engagement are presented in Figure 2.

Figure 2. Students' engagement

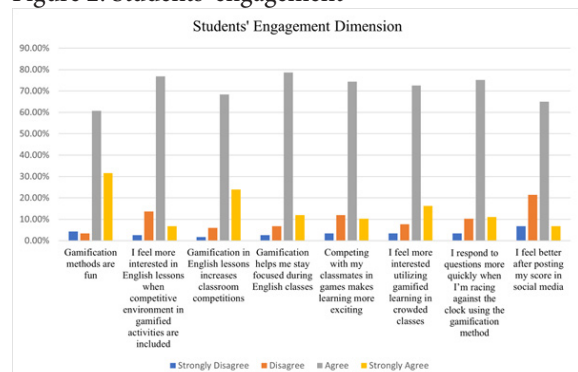


Figure 2 presents data on students' engagement in English classes when

gamification strategies are implemented. The chart measures students' levels of agreement across eight different engagement-related statements using four response categories: Strongly Disagree, Disagree, Agree, and Strongly Agree.

Overall, the majority of respondents expressed positive perceptions towards gamification. The most highly rated statement was "I feel more interested in English lessons when competitive environment in gamified activities is included," with nearly 80% of students strongly agreeing. A similarly high proportion of students, approximately 75%, strongly agreed that gamification helps them stay focused during English lessons and that classroom competitions increase engagement. Another prominent area of agreement was seen in statements such as "Competing with classmates makes learning more exciting" and "I feel more interested utilizing gamified learning in crowded classes," both of which saw strong agreement percentages above 70%. Meanwhile, responses related to social sharing, such as feeling better after posting scores online, had slightly lower but still majority positive agreement rates.

In contrast, a minimal percentage of respondents, typically under 5%, strongly disagreed or disagreed with the positive statements. The lowest levels of strong agreement appeared in statements such as "I feel better after posting my score in social media" and "I respond to questions more quickly," though these still garnered majority support.

In summary, students largely view gamification as an effective method to boost classroom engagement, especially when it involves competition, interaction, and motivational elements.

The Effectiveness of gamification in improving students' learning outcomes and motivation in English lessons

The findings about the effectiveness of gamification in improving students' learning

outcomes and motivation are presented in Figure 3,4 and 5.

Figure 3. Effectiveness

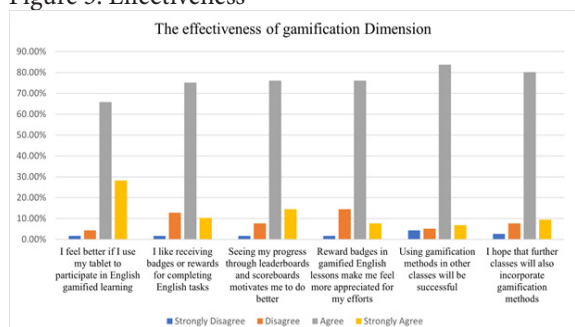


Figure 3 illustrates students' perceptions of how effective gamification is in enhancing their English learning experience. The bar chart features seven statements, each evaluated by respondents through the same four-tiered scale of agreement.

A striking trend across the chart is the dominance of the "Strongly Agree" category, which consistently accounts for the largest proportion of responses, ranging from 70% to over 80%. The highest endorsement was seen in the statement "Using gamification methods in other classes will be successful," with over four-fifths of students expressing strong agreement. This suggests a broad belief in the transferability of gamification beyond English learning.

Other statements such as "I like receiving badges or rewards for completing English tasks" and "Reward badges in gamified English lessons make me feel more appreciated" also received strong agreement from over 75% of respondents. This indicates that reward systems and visual feedback are particularly motivating for learners.

The statement "I feel better if I use my tablet to participate in English gamified learning" also received high approval, with approximately 70% strongly agreeing. This highlights the role of digital tools in supporting student engagement. On the opposite end, less than 5% of students strongly disagreed with any of the statements, showing minimal

resistance to the use of gamification. Slightly higher disagreement appeared in statements related to leaderboard usage, although overall support remained strong.

Overall, the data reflect widespread student confidence in the effectiveness of gamification in improving the learning process, especially when rewards and technology are involved.

Figure 4. Motivation

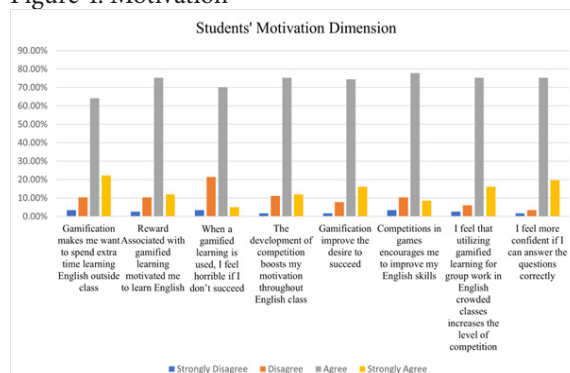


Figure 4 explores students' motivational responses to gamified English learning. It includes ten different statements reflecting emotional, cognitive, and competitive motivational factors, with responses categorized by the degree of agreement.

A consistent trend across the chart is the predominance of "Strongly Agree" responses, generally ranging between 65% and 80%. Among the most agreed-upon statements were "Gamification makes me want to spend extra time learning English outside class" and "The development of competition boosts my motivation throughout English class," both of which received strong agreement from nearly 80% of students. This suggests that gamification positively influences students' intrinsic motivation and dedication beyond the classroom setting.

Additionally, over 75% of respondents strongly agreed that gamification improves their desire to succeed and encourages them to improve their English skills. This highlights the motivational power of competitive and skill-based game elements. The statement

“Competitions in games encourage me to improve my English skills” also ranked highly. Statements involving emotional resilience, such as “When a gamified learning is used, I feel better if I don’t succeed,” received slightly lower but still majority agreement. This might indicate some variability in how students respond to failure within game-based learning environments. Disagreement levels were consistently low across all items, with “Strongly Disagree” and “Disagree” rarely exceeding 5% each. This demonstrates a general acceptance of gamification as a motivational tool.

In conclusion, the chart reveals strong student motivation derived from gamified approaches, particularly when competition, success, and personal improvement are emphasized.

Figure 5. Learning Outcomes

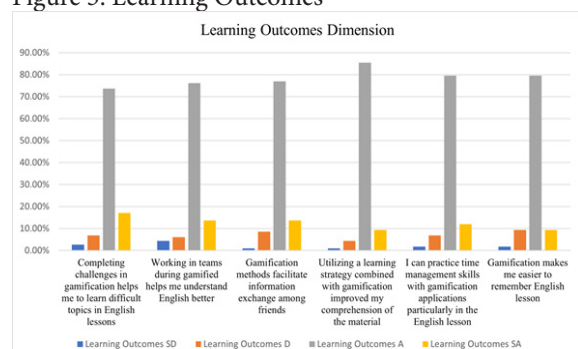


Figure 5 presents students’ views on how gamification affects their learning outcomes in English. This includes their perceived ability to learn difficult topics, collaborate effectively, retain information, and manage time. Responses were again classified into four levels of agreement.

A notable pattern is the dominance of “Strongly Agree” responses across all statements. The most agreed-upon statement was “Utilizing a learning strategy combined with gamification improved my comprehension of the material,” with approximately 85% of students strongly agreeing. This suggests that students believe gamification supports deeper understanding when integrated with instructional strategies. Similarly, over 80%

of respondents strongly agreed that they could practice time management skills more effectively through gamification, and that such methods made it easier to remember English lessons. These high levels of agreement indicate that gamification is not only engaging but also contributes to practical academic skill-building.

In contrast, slightly lower levels of strong agreement were observed for statements related to teamwork and peer interaction. For example, “Working in teams during gamified lessons helps me understand English better” and “Gamification methods facilitate information exchange among friends” had relatively fewer, but still majority, strong agreement responses. Across all items, the proportions of “Strongly Disagree” and “Disagree” were very small, often less than 5%, indicating an overwhelmingly positive reception to gamified learning outcomes.

In summary, the data reveal that students perceive gamification as a highly effective method to support not only their comprehension and memory but also their collaboration and time management in English language learning.

Discussion

The findings of this study reveal that gamification significantly enhances student engagement in English learning among vocational high school students. A majority of students reported that gamified learning activities were fun (82.9% agreed or strongly agreed), indicating that enjoyment is a key factor in drawing learners into classroom participation. This aligns with Fahada & Asrul (2024), who emphasized that the enjoyable and interesting nature of gamification positively affects students’ emotional involvement.

Moreover, the presence of competitive elements, such as leaderboards and point systems, was reported to raise students’ interest and motivation. With 83.7% of students responding positively to competitive environments, it is clear that gamification

fosters a sense of challenge and stimulates engagement. These findings support the work of Lofti et al. (2021), who argued that active classroom competition increases student participation and focus during learning activities.

In addition, students reported improved focus and ambition when learning English through gamified tasks. Approximately 90.6% of participants agreed that gamification helped them stay focused, reinforcing the idea that structured, and goal-oriented challenges increase cognitive engagement. Interestingly, the study also found that gamification is effective in crowded classrooms, with 88.8% of students showing positive perceptions. This supports Sinnivasagam & Hua (2023), who noted that gamified tools are especially beneficial in managing attention and increasing motivation in less-than-ideal classroom environments.

Time-based challenges also proved engaging, with 86.3% of students stating they responded quicker when racing against the clock, suggesting that urgency can stimulate engagement and sharpen focus. This finding corresponds to Lofti et al. (2021), who observed heightened excitement in gamified settings. Another notable aspect is social motivation, with 71.8% of students feeling more confident after posting scores on social media. Public recognition through gamification, as supported by Hadi et al. (2020), can enhance students' sense of achievement, fostering confidence and sustained engagement.

Furthermore, gamification is highly effective in enhancing both motivation and learning outcomes among vocational high school students in English lessons. The use of gamified tools such as tablets, leaderboards, rewards, and challenges has proven to be instrumental in fostering student interest, engagement, and comprehension. A significant portion of students (94%) agreed that using tablets made learning English more enjoyable, which resonates with O'Brien et al. (2019), who noted that tablet-assisted gamified

activities enhance student interaction and confidence. Likewise, extrinsic motivators such as badges, points, and leaderboards received overwhelmingly positive responses, reflecting the importance of achievement recognition. This finding aligns with Saleem et al. (2022) and Imran (2019), who highlighted the motivational power of visual progress indicators and symbolic rewards.

Notably, students reported that competition within gamified settings boosted their motivation and desire to perform well, with 87.2% expressing higher motivation when competition was present. This aligns with Amo et al. (2020), who emphasized that competitive elements in games can significantly improve learners' performance. Additionally, many students (86.3%) noted that gamification encouraged them to practice English outside the classroom, a finding echoed by Huang et al. (2019), who concluded that gamified learning supports learning beyond school hours.

In terms of learning outcomes, over 90% of students agreed that gamified learning helped them better understand English materials and difficult topics. Gamification's effectiveness in improving retention, comprehension, and collaboration was evidenced by high agreement on statements about teamwork, time management, and information exchange. These results support Wang et al. (2021) and Qiao et al. (2025), who found that gamification promotes knowledge sharing and fosters a deeper engagement with the learning material. Furthermore, students reported improved self-confidence and classroom participation, especially when succeeding in challenges or answering questions correctly, confirming O'Brien et al.'s (2019) findings that success in gamified environments boosts self-perception. Interestingly, the study also found that students were more likely to support the use of gamification across other subjects, reflecting its perceived value as a universal strategy to enhance learning. This is supported by Bicen & Kocakoyun (2018), who argued that gamification can be effectively applied beyond

language learning.

However, one exception was found: some students (24.8%) felt demotivated when they failed in gamified activities, which contrasts with Putra & Priyatmojo (2021), who reported that students-maintained motivation despite failure. This suggests a need for balanced game mechanics that celebrate effort as well as achievement to avoid discouragement.

In short, the integration of gamification into English language learning positively impacts motivation, learning engagement, and academic performance. These findings validate the importance of reward systems, competition, collaborative play, and digital platforms in modern educational contexts, particularly for vocational students who benefit from interactive and goal-oriented approaches.

Conclusion

This study explores the EFL students' experiences with gamified learning in vocational education, especially for automotive students. In summary, gamification effectively enhances students' engagement, participation, and motivation in English lessons, especially in vocational education, by incorporating elements like points, badges, and leaderboards. Additionally, gamified learning improves learning outcomes, with strong student support for its application in other subjects, though individual preferences regarding achievement sharing should be considered.

After conducting the study, the researcher found several drawbacks about the implementation of gamified learning and the process of the study. The implementation of gamified learning encountered some drawbacks, such as lack of internet connection and low quality of student devices. Meanwhile, the limitations of this study are lack of in-depth information about students' experience with gamified learning in vocational education especially in automotive majors. Therefore, the researcher highly suggests that for the next research should be conducted using mixed methods study which triangulate the

quantitative and qualitative approach to measure and investigate the vocational high school students' experiences with gamified learning. Also, the researchers strongly recommend using more participants from various majors but still prioritize filters for students who have experienced gamified learning for generalizations.

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