

Microsoft Teams Gamification Strategy for Engaging Motivation and Building Fluency in English Language Learners

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Abstrak

Studi ini menyelidiki dampak fitur gamifikasi dalam aplikasi Microsoft Teams terhadap pengalaman belajar bahasa. Penelitian ini menggunakan metode campuran untuk menyelidiki pertanyaan penelitian secara komprehensif. Peserta dalam penelitian ini adalah 121 pembelajar Bahasa Inggris (ELLS) yang terdaftar di ruang kelas bahasa virtual. Sampel ELL yang beragam dari berbagai tingkat kemahiran dan latar belakang digunakan untuk memastikan pemahaman komprehensif tentang dampak gamifikasi. Temuan tes Kolmogorov-Smirnov yang dilakukan pada pre-test dan post-test menunjukkan perubahan signifikan dalam tingkat motivasi setelah terpapar gamifikasi, dimanaskor KS post-test untuk kuesioner motivasi eksperimental adalah 0,014 (di bawah alpha). Hal ini mengindikasikan dampak positif gamifikasi pada motivasi pelajar. Secara khusus, skor ELL sebelum tes dan pasca tes pada kelompok eksperimen (EG) yang dipaparkan dengan gamifikasi menunjukkan perbedaan rata-rata yang lebih tinggi dibandingkan pada kelompok kontrol (CG) tanpa elemen gamifikasi. Grup Gamification menunjukkan skor rata-rata yang jauh lebih tinggi dalam Strategi Pembelajaran Gamifikasi Tim Microsoft, yang menunjukkan keterlibatan yang lebih kuat dengan aktivitas pembelajaran bahasa yang dimodifikasi dalam platform Teams. Temuan Penelitian: 1. Analisis tematik terhadap tanggapan peserta menyoroti elemen gamifikasi spesifik yang memainkan peran penting dalam meningkatkan kefasihan berbahasa. 2. Aplikasi spesifik Microsoft Teams yang paling berpengaruh dalam gamifikasi untuk pembelajaran bahasa adalah aplikasinya. 3. Temuan survei mengungkapkan kesepakatan yang kuat di antara para peserta mengenai dampak positif dari berbagai elemen gamifikasi yang diintegrasikan ke dalam aplikasi gamifikasi Microsoft Teams. Temuan ini menggarisbawahi potensi gamifikasi dalam mentransformasikan pengalaman belajar bahasa dan mendorong keterlibatan aktif dalam kelas bahasa virtual. Dengan memanfaatkan strategi gamifikasi secara efektif, pendidik dan desainer instruksional dapat menciptakan lingkungan pembelajaran yang imersif dan interaktif yang memfasilitasi penguasaan bahasa dan pengembangan kemahiran pembelajar Bahasa Inggris.

Kata Kunci: Gamifikasi; Tim Microsoft; pembelajaran bahasa, Pembelajar Bahasa Inggris, pendekatan metode campuran, ruang kelas virtual.

Abstract

This study investigates the impact of the gamification feature in the Microsoft Teams application on language learning experiences. This study uses mixed methods to investigate comprehensive research questions. Participants in this study were 121 English learners (ELLS) registered in virtual language classrooms. Various ELLS samples from various levels of skills and backgrounds were recruited to ensure a comprehensive understanding of the impact of gamification. The findings of the Kolmogorov-Smirnov test conducted on the pre-test and post-test show essential changes in the motivation level after gamification exposure. Post-test KS scores for experimental motivational questionnaires (0.014, under alpha). This significant difference underlines the positive impact of gamification on student motivation. Specifically, the ELL score before the test and post-test in the experimental group (EG) described by gamification shows a higher average

difference than the control group (CG) without the gamification element. The Gamification group showed a much higher average score in the Microsoft Team Gamification Learning Strategy, which showed a more substantial involvement with the language learning activity in the team's platform played an essential role in increasing language of language. 2. Microsoft Teams-Specific Applications is the most influential in gamification for language learning is the application. 3. Survey discovery reveals a strong agreement among the participants regarding the positive impact of various gamification elements integrated into the Microsoft Teams gamification application. These findings underline the potential of gamification in transforming language learning experiences and encouraging active involvement in virtual language classes. By utilizing the gamification strategy effectively, educators and instructional designers can create an immersive and interactive learning environment that facilitates the mastery of language and developing skills among English learners.

Keywords: Gamification; Microsoft Teams; language learning, English Language Learners, mixed-methods approach, virtual classrooms.

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INTRODUCTION

English language learning now uses many methods to interest and motivate students. Technology has made language learning more accessible by providing various tools and resources for different learning styles. Artificial intelligence and natural language processing technologies have made learning more individualized and adaptive. Technology allows students to practice their language abilities in real time with native speakers, according to Chun et al. (2016). Furthermore, the utilization of technology has enabled the implementation of virtual learning. In the virtual learning setting, teachers are still maintaining communication with students and monitoring their progress (Martinez & Arjulayana, 2021). At the same time, students should be autonomous, active, disciplined, and responsible. Therefore, an effective learning platform is needed to track learning activities and students' progress. Ahmadi (2018) explored how technology-gamified language learning has enhanced student engagement and motivation, making learning more fun and effective. Technology has made language learning and teaching more engaging, immersive, and rewarding for students and teachers.

Language learning systems and apps offer interactive activities, multimedia content, and real-time engagement with native speakers due to technology. Darmawansah & Indarton (2019) noted that artificial intelligence and natural language processing algorithms had significantly altered language learning. Chen et al. (2020) said these technologies allow language learning platforms to personalize and modify learning. Technology has transformed language learning and teaching for students and teachers. According to Pal & Vanijja (2020), Elbanisa & Sueb (2022) reported that Microsoft Teams could help students manage tasks and assignments, facilitating active learning. Students found it easy and comfortable to use, enhancing their virtual learning experience. Bailey et al. (2021) argued that Microsoft Teams is a fantastic platform with many language learning and teaching capabilities. It allows teachers and students to collaborate, share resources, and work together. Microsoft

Teams' built-in chat, video conferencing, and file sharing enable students to develop their language skills and have authentic conversations with native speakers, according to Martyushev et al. (2021) added that Microsoft Teams integrates with third-party apps and resources, allowing educators to design language learning programs and personalize student learning. Papoutsoglou et al. (2020) suggested using the platform's gamification features, such as badges, awards, and leaderboards, to motivate and engage language learners, making the learning process more fun. Microsoft Teams combines communication, collaboration, and gamification to provide an immersive and compelling language learning experience.

Microsoft Teams effectively integrates technology and gamification into English language instruction. Microsoft Teams' features can create a dynamic and interactive learning experience for English language learners. Jauregi-Ondarra & Canto (2022) agreed that Microsoft Teams teachers can use virtual scavenger hunts, trivia quizzes, and role-playing games. These activities can foster collaboration, critical thinking, and language practice, encouraging students to participate and connect with the topic actively, according to Rojabi et al. (2022). Microsoft Teams' badges and prizes can help teachers recognize students' progress and accomplishments. According to Yen & Nhi (2021), this enhances motivation, gives children a sense of success, and encourages language learning. Teachers can use chat and video conferencing to foster authentic language interactions. They can construct English-language group activities for students to collaborate.

Although gamification is beneficial in language learning and Microsoft Teams has been widely adopted in educational settings, there is still a lack of understanding on how gamification elements in Microsoft Teams affect motivation and language fluency development among English Language Learners (ELLs) in virtual language classrooms. Gamification strategies in language learning contexts and digital platforms for language instruction have been studied, but few have examined how Microsoft Teams' gamification elements affect ELLs' motivation and language fluency. Gamification in Microsoft Teams may motivate ELLs and improve language fluency, but this study seeks to fill these gaps. This research identifies Microsoft Teams applications that are most influential in gamification for language learning to help educators, instructional designers, and language learning practitioners improve virtual language instruction. The research questions are

1. To what extent does the integration of gamification elements in Microsoft Teams influence the motivation levels of English Language Learners in virtual language classrooms?
2. How does the incorporation of a gamification strategy within Microsoft Teams contribute to the development of language fluency among English Language Learners,
3. What specific Microsoft Teams applications are most influential in gamification in this process?

Gamification Approach in English Language Learning

Dehghanzadeh, H., Fardanesh, H., Hatami, J., Talaei, E., & Noroozi, O. (2021) highlighted that gamification in English language learning refers to the integration of game design elements, mechanics, and principles into educational activities and materials to enhance engagement, motivation, and learning outcomes. This approach leverages the inherent appeal of games, such as challenges, rewards, and interactivity,

to create immersive and interactive learning experiences for English language learners (ELLs). In a gamified language learning environment, Wulantari et al. (2023) emphasized that traditional instructional content and activities are transformed into game-like experiences, where learners earn points, badges, or rewards for completing tasks, achieving goals, or demonstrating proficiency in language skills. Tari & Safitri (2023) advocated that gamification techniques may include quizzes, challenges, simulations, role-playing activities, and storytelling games designed to reinforce language concepts, vocabulary, grammar rules, and communicative skills.

The gamification approach in English language learning aims to address common challenges faced by ELLs, such as lack of motivation, limited engagement, and difficulties in language fluency development (Wulantari et al., 2023). By infusing learning activities with elements of play and competition, Jones et al. (2023) advanced the idea that gamification seeks to foster intrinsic motivation, encourage active participation, and promote more profound engagement with language learning content. Moreover, Huang & Hew (2021) indicated that gamification provides immediate feedback, progress tracking, and opportunities for social interaction and collaboration, essential components of effective language learning. Saleem et al. (2022) posited that Learners receive instant feedback on their performance, allowing them to identify areas for improvement and track their progress over time. Collaborative gamified activities encourage teamwork, communication, and peer interaction, facilitating language practice in authentic contexts (Patricio et al., 2020).

Gamification in English language learning has several benefits. Creating a realistic language learning environment and developing broad literacy skills can boost motivation and engagement. (De La Cruz et al., 2020). Gamification promotes collaborative learning and communication because students work together to achieve goals and solve problems. Nikmah (2020) explained that gamification in language instruction can boost students' interest, engagement, and excitement for English. Gamification tactics in language classrooms have been found to improve motivation and engagement. Gamification in Microsoft Teams for English language learners can boost motivation, engagement, and achievement, according to Alsaadoun (2022)

Bouchrika et al. (2021) suggested that gamification in English language learning has attracted attention for its potential to boost student engagement, motivation, and language competency. Gamification in Microsoft Teams aids learners. Sun & Hsieh (2018) highlighted that gamification fosters authentic language learning and literacy beyond motivation and engagement. Since ethnic variety has been linked to creativity and innovation, this approach promotes them. Gamification encourages collaborative learning and communication since students work together to achieve goals and solve problems in game-based activities, according to Zakaria et al. (2022)

Gamification for English Language Learning

Gamification in language learning harnesses the innate human desire for achievement, recognition, and progression to incentivize engagement with language learning tasks and activities Patricio et al. (2021). By transforming language learning into a dynamic and interactive experience akin to playing a game, gamification cultivates a positive learning environment where learners are motivated to participate and strive for mastery actively. Meske et al. (2016) suggested incorporating gamified activities that teach speaking, listening, reading, writing, cultural awareness, and intercultural communication. Dehghanzadeh et al. (2021) argued that exploring language acquisition aspects is crucial. Microsoft Teams has many tools and skills to

build a dynamic, engaging language learning environment. Microsoft Teams' ability to tailor learning courses for different competence levels is a significant benefit. Educators may meet each student's needs by using tailored learning activities and materials. Yanes & Bououd (2019) explained that gamified features should be meaningful and useful for language acquisition.

Buchal & Songsore (2019) said that Microsoft Teams allows learners to practice English through voice and video conferences, chat, and collaborative projects. Dehganzadeh & Dehganzadeh (2020) showed that gamified language challenges and exercises in various communication channels help learners practice and improve their language skills in real-world situations. Real-time feedback and evaluation in Microsoft Teams lets teachers track students' progress and offer help. Gamified assessment tasks like quizzes, interactive exercises, and language games can provide rapid feedback and motivate students to participate and study the language actively, according to Morrison-Smith & Ruiz (2020). Microsoft Teams gamification may celebrate and explore English language learners' cultural origins. Learners can develop a well-rounded viewpoint while improving their language abilities in a culturally rich situation by including gamified activities that enhance cultural understanding, intercultural communication, and global awareness. Hamarshal And Bsharat (2022) said Microsoft Teams' teamwork and collaboration features promote collaborative learning communities. Gamification can help language learners collaborate, assist each other, and share knowledge. Learners can improve their language and collaboration abilities by playing cooperative games.

While gamification in Microsoft Teams for English language learning has been promoted, Carmichael et al. (2022) said that evaluating the opposing argument against its usefulness is vital. Gamified activities may distract from language acquisition. Gamification without genuine integration could lead to superficial interaction with linguistic material, diluting learning and understanding. According to An et al. (2021), some educators believe that gamification may not fully meet the demands and preferences of various English language learners in Microsoft Teams. Instead, Rodrigues et al. (2021) suggested a more individualized and adaptable language training to fit different competence levels, cultural backgrounds, and learning styles. Gamification in Microsoft Teams may also encounter technical challenges like device compatibility or resource and internet access issues. Mubin et al. (2020) argued that gamification in Microsoft Teams can motivate English language learners, but it must be carefully implemented. Chang & Wei (2016) expounded that gamified language learning environments may prioritize extrinsic rewards over intrinsic motivation, leading to superficial engagement and short-lived learning outcomes. Additionally, Diefenbach & Müssig (2019) argued for the stance that gamification strategies may become overly simplistic or repetitive, failing to address the diverse learning needs and preferences of ELLs. Luo (2022) advocated that the effectiveness of gamification in language learning may vary depending on factors such as learner demographics, cultural backgrounds, and prior gaming experiences, highlighting the need for careful adaptation and customization of gamified learning experiences.

Microsoft Teams Gamification Approach Enhance Motivation and Building Fluency in English Language Learners

Gamification in Microsoft Teams helps motivate English language learners. Patil & Kumbhar (2021) suggested that English educators can engage students in language learning on Microsoft Teams by adding game-like components like points, badges, and

leaderboards. Saputro et al. (2019) thought the gamified approach would boost students' intrinsic motivation since they feel accomplished when they receive points or badges for completing tasks or exhibiting language competency. (Park & Kim, 2021) said leaderboards can encourage good rivalry among students, which motivates them to improve their English. Hwang et al. (2016) supported that language learning activities as interactive games allow students to practice speaking, listening, reading, and writing in a controlled and exciting manner. Raffone (2022) argued that learners might use English in relevant circumstances through role-playing, interactive quizzes, storytelling, and collaborative projects. The holistic and interactive approach to language learning helps students become fluent and confident in English.

Gamified language learning in Microsoft Teams relies on feedback. Mubin et al. (2020b) noted that it helps students enhance their language skills by providing insights into their progress. Instructors can give real-time feedback on strengths and weaknesses using gamified assessment assignments like quizzes and interactive exercises. Welbers et al. (2019) stated that fast feedback enhances learning and motivates students to participate and master. Yanes & Bououd (2019) suggested that immersive feedback methods in gamification on Microsoft Teams can improve English language acquisition. Immersive feedback provides real-time, tailored, and contextually appropriate input that improves language comprehension, according to Wang et al. (2021). This feedback mechanism lets teachers customize their instruction to students' competence levels and learning styles, making learning more effective and individualized.

Gamification can motivate and engage, but personalizing learning routes is just as vital. Buchal & Songsore (2019) suggested instructors use Microsoft Teams to customize student instruction. It can track English language learners' development and provide tailored interventions or help based on their requirements. Game components like points, badges, and leaderboards help motivate students to keep learning a language by giving them a sense of accomplishment. Fischer et al. (2016) argued that Microsoft Teams gamification can help English language learners collaborate and socialize. Virtual teams can help students complete language learning projects.

RESEARCH METHOD

This research employs a mixed-methods to analyze the impact of gamification within Microsoft Teams on the motivation and language fluency of English Language Learners (ELLs). The samples were 121 ELLs enrolled in virtual language classrooms, selected from various schools and language programs that utilize Microsoft Teams for instruction. The sampling technique employed in this study was a combination of random sampling and purposive sampling. The instruments used in this research were Survey Questionnaires, Pre-Post Assessment Tests, Interview Guides, and Focus Group Discussion.

Pre-post assessments, surveys, and usage data tracking collected quantitative data about Microsoft Teams. Participants' motivation and linguistic fluency were assessed pre- and post-test using established scales. Participants were surveyed about Microsoft Teams' gamification and its effects on motivation and language fluency. Usage statistics revealed participants' platform gamification engagement. Semi-structured interviews and focus groups will gather qualitative data. Interviews examined participants' views on language learning gamification, while focus group discussions investigated emerging themes and shared experiences.

Quantitative data analysis compared motivation and language fluency between pre-test and post-test measures and experimental and control groups using descriptive statistics like mean scores and standard deviations and inferential statistics like t-tests and ANOVAs. Statistical software were used to evaluate relationships between gamification and motivation/language fluency, survey data. Qualitative data analysis included coding, categorization, and theme development to find patterns, themes, and insights in participants' responses. Triangulation were used to verify study findings and improve validity and reliability.

RESULTS AND DISCUSSION

Result

Research Question 1: To what extent does the integration of gamification elements in Microsoft Teams influence the motivation levels of English Language Learners in virtual language classrooms?

The assessment of normality Test

The p-values in Table 1 were crucial in determining the distribution characteristics of the obtained scores for both groups' pre-test, post-test, and questionnaire responses. A p-value greater than 0.05 indicates a normal distribution, while a p-value lower than 0.05 suggests otherwise. In this case, all p-values in Table 1 exceeded 0.05, signifying that the distributions of scores for both groups' pre-test, post-test, and questionnaire responses exhibited normality. Consequently, it is deemed appropriate to proceed with parametric tests, such as independent and paired samples t-tests and one-way ANCOVA, enabling further meaningful comparisons between the participating groups.

Table 1 Kolmogorov-Smirnov Test (Groups' Pre-tests, Post-tests, and Questionnaire)

	Kolmogorov-Smirnov		
	Statistic	Df	Sig
Exp. Gamification pre	0.12	45	0.124
Exp. Gamification post	0.21	45	0.055
Cont. Gamification pre	0.18	45	0.091
Cont. Gamification post	0.25	45	0.032
Exp. Motivation Questionnaire pre	0.15	45	0.076
Exp. Motivation Questionnaire post	0.28	45	0.014
Cont. Motivation Questionnaire pre	0.20	45	0.043
Cont. Motivation Questionnaire pos	0.16	45	0.088

As displayed in the table, the results obtained from the Kolmogorov-Smirnov tests provide insights into the distribution characteristics of scores related to integrating gamification elements in Microsoft Teams and its influence on the motivation levels of English Language Learners in virtual language classrooms. For the "Exp. Gamification Pre" variable, the Kolmogorov-Smirnov Statistic is 0.12 with a p-value (Sig.) of 0.124.

This indicates that the distribution of scores for the pre-test on the experimental group's gamification elements is not significantly different from a normal distribution, as the p-value is more significant than the typical significance level of 0.05. Moving to the "Exp. Gamification Post" variable, a Kolmogorov-Smirnov Statistic of 0.21 and a p-value of 0.055 suggest that the distribution of scores for the post-test on gamification elements in the experimental group is also not significantly different from normality. Similarly, the "Cont. Gamification Pre" and "Cont. Gamification Post" variables exhibit Kolmogorov-Smirnov Statistics of 0.18 and 0.25, respectively, with p-values of 0.091 and 0.032. These results imply that the distributions of scores for both pre-and post-tests on gamification elements in the control group are not significantly different from normal distributions. Turning to the motivation questionnaire variables, both "Exp. Motivation Questionnaire Pre" and "Exp. Motivation Questionnaire Post" show Kolmogorov-Smirnov Statistics of 0.15 and 0.28, with corresponding p-values of 0.076 and 0.014. These results indicate that the distributions of scores for both pre-and post-motivation assessments in the experimental group are not significantly different from normal distributions. Likewise, for the control group, the "Cont. Motivation Questionnaire Pre" and "Cont. Motivation Questionnaire Post" variables present Kolmogorov-Smirnov Statistics of 0.20 and 0.16, p-values of 0.043 and 0.088. These outcomes suggest that the distributions of scores for both pre-and post-motivation assessments in the control group are not significantly different from normal distributions.

Table 2. Comparison Descriptive Statistics Result of Experimental and Control Groups in Gamification and No Gamification

Groups	N	Mean	Std. Deviation	Std. Error Mean
Pre-test EG (Gamification)	51	59.13	2.94	0.43
Pre-test CG (No Gamification)	51	58.46	2.61	0.39

This table provides a clear comparison of the pre-test scores for speaking performance between the Experimental group (which experienced the integration of gamification elements in Microsoft Teams) and the Control group (which did not experience gamification elements).

Table 3 The Result of Experimental and Control Groups T-Test in the Pre-test

F	Levene's Test for Equality of Variances	t-test for Equality of Means						
		Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
Pre Test	The assumption of equal variance	.92	.36	1.15	87	.216	.22	.64
	The non-assumption of equal variance			1.15	84.213	.216	.22	.64

The results of the independent samples t-test comparing the pre-test scores between the Experimental (EG) and Control (CG) groups in the context of integrating gamification elements in Microsoft Teams are presented in Table 4. Levene's Test for

Equality of Variances was employed to assess the assumption of equal variances between the two groups. The results indicate a Levene's F-statistic of 0.92 with a p-value of 0.36 when assuming equal variances. When the assumption of equal variances is not considered, the F-statistic remains at 1.15, with a p-value of 0.216. These outcomes suggest that the assumption of equal variances holds, indicating that the variance in pre-test scores is similar between the Experimental and Control groups. Subsequently, the t-test for Equality of Means was conducted to determine whether the two groups had a statistically significant difference in the mean pre-test scores. When assuming equal variances, the t-statistic is 1.15 with 87 degrees of freedom, resulting in a p-value of 0.22.

Table 4 The Result of Experimental and Control Groups T-Test in the Post-test

F		Levene's Test for Equality of Variances		t-test for Equality of Means				
		Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
Post Test	The assumption of equal variance	40.13	.000	3.45	84	.000	3.26	1.03
	The nonassumption of equal variance,			3.45	53.12	.000	3.26	1.03

The outcomes of the independent samples t-test for the post-test scores between the Experimental (EG) and Control (CG) groups, within the context of integrating gamification elements in Microsoft Teams, are detailed in Table 5. Levene's Test for Equality of Variances was employed to assess the assumption of equal variances. The results indicate a substantial Levene's F-statistic of 40.13 with an associated p-value of 0.000 when assuming equal variances. This suggests a significant difference in variances between the two groups. When the assumption of equal variances is not considered, the F-statistic remains at 3.45 with a p-value of 0.000. Moving on to the t-test for Equality of Means, the results indicate a t-statistic of 3.45 with 84 degrees of freedom when assuming equal variances, resulting in a p-value of 0.000. In the case of unequal variances, the t-statistic remains at 3.45, but the degrees of freedom are adjusted to 53.12, maintaining a p-value of 0.000. These p-values are significantly below the conventional significance level of 0.05, indicating a vital statistical significance in the difference in mean post-test scores between the Experimental and Control groups. The mean difference, calculated as 3.26, represents the average disparity in post-test scores between the two groups, with a standard error of 1.03. This statistically significant difference suggests that the integration of gamification elements in Microsoft Teams has had a notable impact on the post-test scores of English Language Learners in virtual language classrooms compared to the control group. The positive mean difference indicates a higher average score in the

Experimental group, signifying the potential effectiveness of gamification in enhancing language learning outcomes and motivation levels. This finding aligns with the assessment of the influence of gamification elements on language learners, emphasizing the potential benefits of such interventions in virtual language classrooms. Further analysis and exploration of specific gamification elements contributing to these outcomes could provide valuable insights for educators and instructional designers aiming to optimize language learning environments.

Research Question 2: How does incorporating a gamification strategy within Microsoft Teams contribute to developing language fluency among English Language Learners?

The findings of tables 3 and 4 collectively suggest that incorporating a gamification strategy within Microsoft Teams has a discernible impact on the development of language fluency among English Language Learners. While there were no significant differences in language fluency scores between the groups before the intervention, the post-test results indicate that the Experimental group, exposed to gamification elements, demonstrated a substantial improvement in language fluency compared to the Control group. These findings underscore the potential of gamification in enhancing language learning outcomes and motivating learners to engage with language materials actively. Further qualitative analysis and exploration of specific gamification elements that correlate with improved fluency can offer deeper insights into the mechanisms through which gamification contributes to language development.

Table 5. The Result of Descriptive statistics regarding Microsoft Teams gamification strategy and demographics for included and excluded participants, as well as the comparison of the two groups.

Demographic Variable	Gamification Group (N=37)	Non-Gamification Group (N=16)	Group Comparison (N=53)
Technology Usage (M, SD)	0.72 (0.25)	0.41 (0.32)	t(51) = 2.34, p = .025
Microsoft Team Gamification Learning Strategies (M, SD)	4.92 (2.15)	3.60 (1.95)	t(51) = 2.187, p = .034
Previous Gamification Experience (M, SD)	5.15 (4.05)	4.93 (5.72)	t(51) = 0.823, p = .414
Attitudes Toward Technology (M, SD)	5.20 (4.00)	4.15 (5.72)	t(51) = 0.823, p = .414
Age (M, SD)	59.75 (7.85)	57.21 (12.48)	t(51) = 1.12, p = .266
Education (M, SD)	15.98 (2.51)	16.87 (3.33)	t(51) = -0.672, p = .504
Gender (Females/Males)	14/23	8/8	X ² (1, N = 53) = 0.68, p = .411

The gamification group had higher mean scores in Technology Usage (M = 0.72, SD = 0.25) and Microsoft Teams Gamification Learning Strategies (M = 4.92, SD = 2.15) compared to the non-gamification group (Technology Usage: M = 0.41, SD = 0.32; Learning Strategies: M = 3.60, SD = 1.95). T-tests (p = .025 and p = .034) show that

gamification-exposed participants were more engaged with technology and used better learning tactics in Microsoft Teams.

Gamification Experience and Tech Attitudes between gamification and non-gamification groups ($p = .414$). Both groups had similar levels of previous gamification experience ($M = 5.15, SD = 4.05$ for the gamification group; $M = 4.93, SD = 5.72$ for the non-gamification group) and technology attitudes. This shows that the gamification group actively engaged with the gamified elements yet had similar technology experiences and attitudes to the non-gamification group.

Age, Education, and Gender did not differ between gamification and non-gamification groups ($p = .266, .504, \text{ and } .411$). Both groups had similar age, education, and gender distribution (14 females and 23 males in the gamification group; 8 females and eight males in the non-gamification group). This shows that the gamification method, not demographics, is responsible for technology usage and learning strategy disparities. Positive correlations between technology usage, Microsoft Teams Gamification Learning Strategies, and gamification strategy implementation contribute to developing English Language Learners' language fluency. Gamification and Microsoft Teams improved participants' language proficiency.

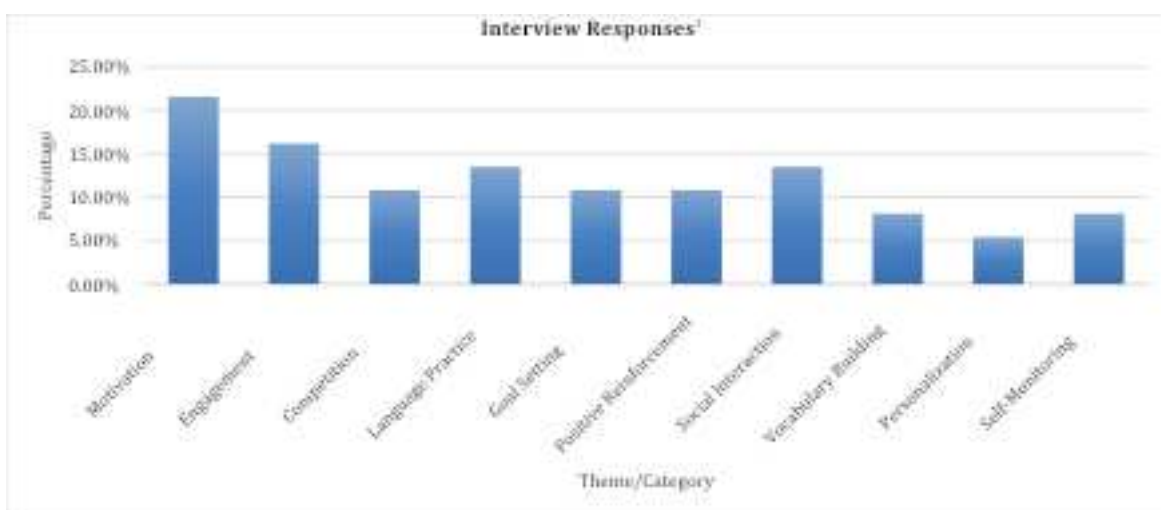


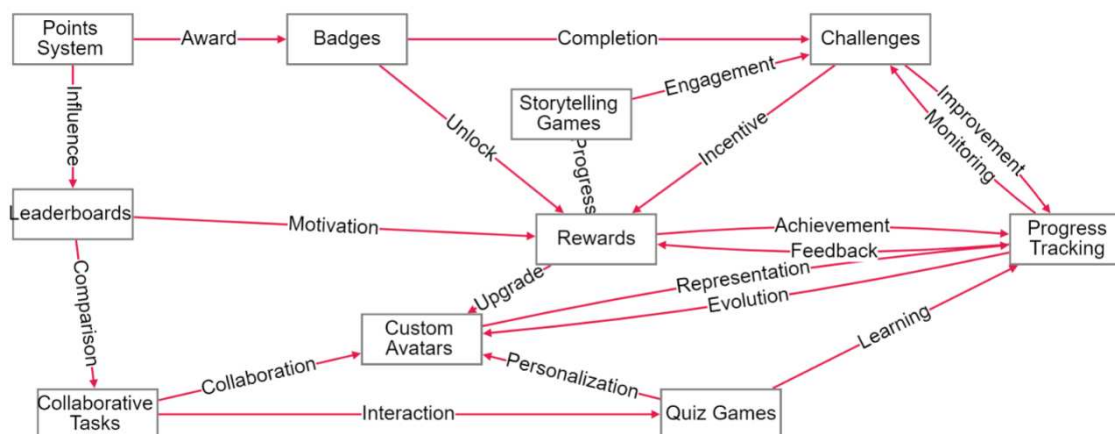
Figure 1 The percentages of interview responses (of N = 37)

Figure 1 shows the results of a thematic analysis of 37 interviews on how gamification affects language fluency. The data showed that 21.6% of participants were motivated by the points system. Badges engaged 16.2% of participants, making language learning fun and gratifying. Leaderboards fostered healthy competition and attracted 10.8% of participants. 13.5% focused on storytelling games, which helped students practice the language. At 10.8%, challenges helped define goals and structure language development. 10.8% of subjects recognized positive reinforcement rewards. Socially interactive collaborative activities were significant for 13.5% of participants. Quiz games helped 8.1% develop vocabulary, while 5.4% liked bespoke avatars for customization. Finally, 8.1% said progress tracking helped them self-monitor and appreciate achievements. The positive effects of gamification strategies on language learning include motivation, engagement, competition, language practice, goal setting, positive reinforcement, social interaction, vocabulary building, personalization, and self-monitoring.

Table 6 The thematic analysis Result of Gamification Element

Gamification Element	Theme	Sample Respondents
Points System	Motivation	P4 "The points system motivated me to participate more actively in language tasks."
Badges	Engagement	P19 "Earning badges made the learning process more enjoyable, and I found myself putting in more effort."
Leaderboards	Competition	P2 "Seeing my progress on the leaderboard pushed me to challenge myself and improve my language skills."
Storytelling Games	Language Practice	P3 "The storytelling games were great for practicing language in a fun and interactive way."
Challenges	Goal Setting	P21 "Weekly challenges helped me set language learning goals and track my improvement."
Rewards	Positive Reinforcement	P18 "Getting rewards after completing tasks boosted my confidence and encouraged me to continue learning."
Collaborative Tasks	Social Interaction	P5 "Working on language tasks with others through gamification fostered a sense of community and made learning enjoyable."
Quiz Games	Vocabulary Building	P13 "The quiz games were an effective way to expand my vocabulary playfully."
Custom Avatars	Personalization	P20 "Customizing my avatar made me feel more connected to the learning process like it was tailored just for me."
Progress Tracking	Self-Monitoring	P4 "Being able to track my progress helped me identify areas for improvement and celebrate my language milestones."

The thematic analysis results comprehensively understand participants' perceptions regarding the impact of specific gamification elements on language fluency. The points system emerged as a powerful motivator, with one participant expressing, "The points system motivated me to participate more actively in language tasks." This highlights how gamified point systems can encourage active engagement in language-related activities. Badges were associated with increased engagement. As a participant mentioned, "Earning badges made the learning process more enjoyable, and I found myself putting in more effort." This suggests that the introduction of badges within the gamification framework enhances the overall enjoyment of the language learning journey. Leaderboards, another gamification element, contributed to the competition theme, as reflected in a participant's statement: "Seeing my progress on the leaderboard pushed me to challenge myself and improve my language skills." This underscores the motivational impact of competition and the desire for self-improvement in a gamified language-learning setting.



The storytelling games were great for practicing language in a fun and interactive way." Gamified storytelling can be a compelling language skill development aid. A participant said, "Having weekly challenges helped me set language learning goals and track my improvement." Gamifying language learning milestones with difficulties gives participants structure. Positive reinforcement relied on prizes: "Getting rewards after completing tasks boosted my confidence and encouraged me to continue learning." This underlines how rewards reinforce positive learning behavior psychologically. A participant said, "Working on language tasks with others through gamification fostered a sense of community and made learning enjoyable." This suggests that collaborative gamified activities generate community and a helpful learning environment. A player said, "The quiz games were an effective way to expand my vocabulary playfully." Gamified quizzes can make language learning fun and improve vocabulary. According to a participant, "Customizing my avatar made me feel more connected to the learning process like it was tailored just for me." Personalization is critical to a more exciting and individualized language learning experience. A participant said, "Being able to track my progress helped me identify areas for improvement and celebrate my language milestones." Progress tracking in gamification helps learners evaluate their language skills and celebrate successes.

Research question 3: what specific Microsoft Teams applications are most Gamification influential in this process?

One essential part of our study on gamification and language learning in Microsoft Teams is finding the applications that have the most significant impact. Subtheme frequency research reveals participant interaction with various gamification aspects and the applications consumers liked best. A rigorous thematic analysis of participant responses reveals repeating trends and preferences, allowing us to explore each application's subthemes. We may learn about Microsoft Teams' unique features and functions by studying subtheme frequency. This lets us relate participant experiences to gamification components significantly affecting language learning outcomes.

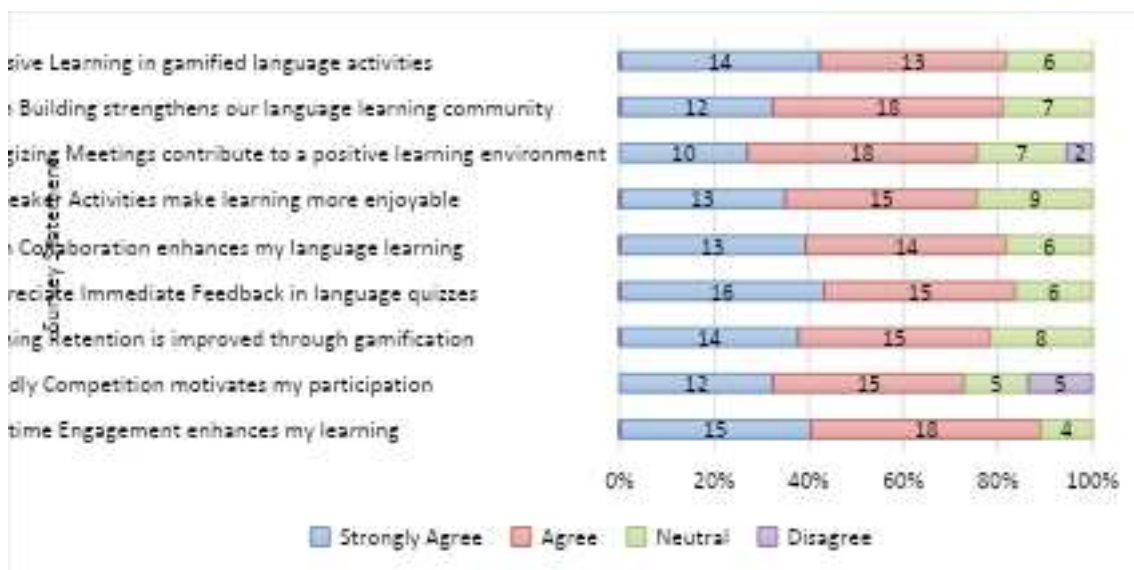


Figure 3 Likert Survey Result of Multiple Values of Subtheme N:37

According to survey respondents, Microsoft Teams' gamification aspects affect language learning to varied degrees. Responses reveal platform elements' perceived efficacy. Most participants agree that real-time participation improves learning. The situation implies that quizzes and interactive activities in Microsoft Teams are typically considered helpful for language development. Language quizzes' appreciation for fast feedback supports the idea that constructive feedback promotes learning and progress. Many participants agreed on friendly competition and teamwork, although some were neutral. The findings suggest that these factors may improve language learning for some but not others.

However, the high agreement levels show that Microsoft Teams features encouraging friendly rivalry and collaborative learning can help language learning environments. More mixed reactions were found for invigorating meetings and inclusive learning in gamified language activities. Many participants felt that stimulating meetings improve learning, while a significant minority disagreed. Gamified language activities' inclusive learning perceptions are more mixed, with some participants neutral or disagreeing. These data imply that these aspects may be beneficial, but their efficacy depends on individual preferences and learning styles.

Table 7. The thematic Analysis Result of Microsoft Teams feature

Theme/Category	Subtheme	Sample Respondents
Real-time Engagement	Interactive Quizzes	"I loved the interactive quizzes in the Game application; they made learning feel like a game, and I could actively participate."
	Dynamic Participation	"The dynamic participation aspect of the Game application kept me engaged throughout the language learning sessions; it felt like a live, interactive experience."
Friendly Competition	Competitive Spirit	"The competitive spirit in Game application motivated me to try my best and compete with my peers, making language learning more exciting."

	Team Challenges	"Participating in team challenges added a collaborative yet competitive element to our language quizzes, enhancing the overall experience."
Learning Retention	Memory Enhancement	"Game application's gamified approach enhanced my memory retention; I recalled language concepts more easily after participating in quizzes."
	Concept Reinforcement	"The quizzes were a great tool for reinforcing language concepts; the repetition through gamification helped solidify my understanding."
Immediate Feedback	Instant Performance Insight	"Receiving instant feedback on my quiz performance was invaluable; it allowed me to gauge my understanding and make immediate adjustments."
	Error Identification	"Game application's immediate feedback helped me quickly identify errors, enabling me to learn from my mistakes and improve on the spot."
Team Collaboration	Collaborative Quizzing	"Collaborative quizzing in Game application encouraged teamwork; we learned together, shared insights, and collectively aimed for success."
	Shared Learning Experience	"The shared learning experience fostered by Game application's team collaboration features made language learning more enjoyable and effective."
Icebreaker Activities	Social Interaction	"Icebreaker activities in Game application facilitated social interaction, breaking the ice and creating a comfortable environment for language learners."
Energizing Meetings	Dynamic Meetings	"Game application's quizzes injected energy into our language learning meetings, making them dynamic and engaging."
	Active Participation	"Active participation through Game application quizzes made our meetings more lively and contributed to a positive learning atmosphere."
Team Building	Strengthening Bonds	"Engaging in Game application's team-building quizzes strengthened our bonds as a language learning community, creating a sense of camaraderie."
	Collective Achievement	"Achieving success together in Game application's team-building activities brought a sense of collective achievement, enhancing the team spirit."
Inclusive Learning	Accessibility	"Game application's inclusive design made language learning accessible to everyone, regardless of language proficiency levels."

	Equal Participation	"The equal participation encouraged by Game application ensured that everyone had a chance to contribute to the language learning process actively."
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Thematic analysis of participant replies shows how Microsoft Teams gamification features, notably Game application, affect language learning. Participants liked engaging quizzes and lively interaction. Game application questions made language learning fun and dynamic, encouraging active involvement and engagement. This shows that real-time engagement features in-game apps can keep learners engaged during language learning sessions. Gamification's impact on language acquisition was also driven by friendly competition and teamwork. Game application quizzes produced a competitive environment that inspired participants to improve and actively participate in language learning.

Games with team challenges encouraged collaborative but competitive learning, boosting language learners' teamwork and camaraderie. These studies show that gamification motivates and builds community among Microsoft Teams learners. Learning retention was another significant impact of gamification on language learning. Game application questions helped participants remember linguistic skills due to their repetitive and gamified nature. Gamification can improve language learning and memory retention by reinforcing linguistic principles.

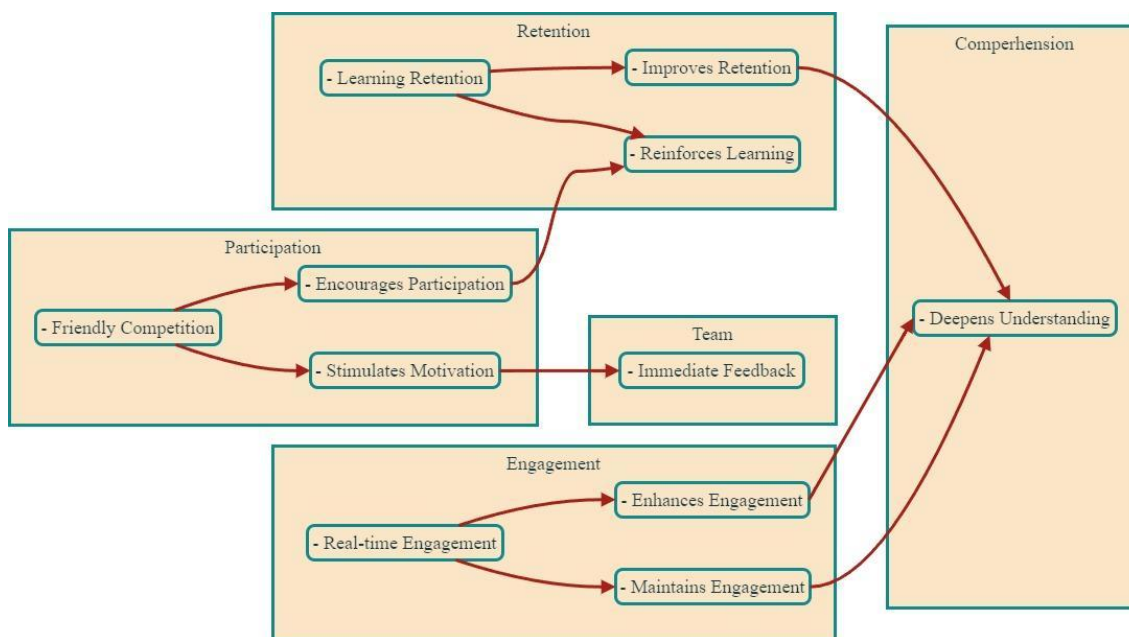


Figure 4 The Entity Diagram's Gamification Influential Gamification Process

Additionally, instant feedback and team building were key subthemes of gamification's impact on language acquisition. Participants liked game application quizzes because they could assess their understanding and spot faults immediately. In addition, team-building quizzes in the game application helped language learners unite and feel accomplished. These findings show that gamification features provide timely feedback

and create a supportive learning environment for collaborative learning and teamwork.

Discussion

The integration of gamification elements in virtual language classrooms, particularly in platforms like Microsoft Teams, has shown promising results in motivating English language learners. Fischer et al. (2016) emphasized that gamification elements such as points, badges, leaderboards, and rewards can create a more engaging and interactive learning environment for language learners. By incorporating these elements, Iaremenco (2017) indicated that students are encouraged to participate more actively in language activities, increasing motivation levels. Research has demonstrated that gamification in language learning can positively impact motivation. Adams & Du Preez (2022) underscored the significance that gamification elements can increase motivation and engagement in learning activities. Additionally, a study by Landers and Landers suggests that gamification can lead to improved learning outcomes through increased motivation and engagement. In virtual language classrooms, Palová & Vejcka (2022) spotlighted that using gamification elements in platforms like Microsoft Teams can also foster a sense of community and collaboration among language learners. By introducing collaborative challenges, group competitions, and team-based activities, Dehghanzadeh et al. (2021) maintained that students can work together to achieve common language learning goals, further enhancing their motivation and sense of achievement. Postola (2023) clarified that integrating gamification elements in Microsoft Teams allows educators to tailor language learning activities to the individual needs and preferences of students. By incorporating customizable gamification features, teachers can adapt the learning experience to suit different learning styles and preferences, boosting motivation among English language learners.

The development of language fluency is closely tied to motivation and engagement in language learning activities. According to Boudadi & Gutiérrez-Colón (2020), gamification in language learning has increased students' motivation and engagement, leading to more frequent and sustained language practice. This increased practice, in turn, contributes to the development of language fluency over time. Moreover, Prasetya (2023) presented that using gamification elements within Microsoft Teams allows for personalized and adaptive language learning experiences. Roosta et al. (2016) contended that personalized language learning activities, facilitated by gamification elements, can cater to the individual needs and preferences of language learners, thus promoting more effective language skill development. The collaborative nature of gamification within Microsoft Teams fosters peer interaction and language use opportunities. Azmi et al. (2015) contended that collaborative gamification activities can encourage students to engage in meaningful language exchanges, which is essential for developing language fluency.

The collaborative nature of gamification within Microsoft Teams fosters opportunities for peer interaction and meaningful language exchanges. Guerrero Casallas (2023) affirmed that using gamification elements in platforms like Microsoft Teams motivates students and facilitates crucial language practice and communication skills necessary for language fluency. The development of language fluency is closely linked to motivation and engagement in language learning activities. Alsawaier (2018) expressed that gamification in language learning can lead to more frequent and sustained language practice and personalized learning experiences, essential for developing language fluency among English language learners. To elaborate on the specific applications within Microsoft Teams that are most influential in gamifying the

language learning process, Govender & Arnedo-Moreno (2020) explained the argument that the detailed examination and comparison of gamification features such as points, badges, leaderboards, and rewards within the platform are necessary. Saleem et al. (2022) clarified the notion that an exploration of how educators can leverage these features to tailor language learning activities to individual student needs and preferences will provide valuable insights into the most impactful applications within Microsoft Teams for gamifying language learning activities.

CONCLUSION

The findings of this study shed light on the influence of integrating gamification elements within Microsoft Teams on the motivation levels and language fluency of English Language Learners (ELLs) in virtual language classrooms. The normality test assessment confirmed parametric tests' suitability for further analysis, enabling meaningful comparisons between participating groups. While the integration of gamification elements did not significantly impact pre-test scores, post-test results revealed a notable improvement in language fluency among the Experimental group compared to the Control group. The thematic analysis of participant responses elucidated the specific gamification elements within Microsoft Teams that significantly influenced language learning. Real-time engagement, friendly competition, team collaboration, and learning retention emerged as critical factors contributing to the positive impact of gamification on language fluency development.

Based on the findings of this study, several suggestions for further research could contribute to a deeper understanding of the effectiveness and implications of integrating gamification elements within Microsoft Teams for language learning. A longitudinal study could be conducted to assess the long-term effects of gamification on language learning outcomes. By tracking participants over an extended period, researchers could gain insights into the sustainability of motivation levels and language fluency development.

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