



Use of Gamified Speech Relay Challenge to enhance the Purposive Communication Skills of College Students

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Abstract. This study examined the effectiveness of a Gamified Speech Relay Challenge in enhancing the oral communication skills of first-year college students. Despite sustained exposure to formal language instruction, many learners continue to experience difficulties in fluency, coherence, pronunciation, and confidence during speaking tasks, which may hinder their academic participation and communicative competence. Addressing this concern, the study aimed to determine whether gamified speaking activities significantly improve students' oral performance and engagement. Grounded in Gamification Learning Theory, Cognitive Load Theory, and Self-Determination Theory, the study employed an explanatory sequential mixed-methods design. The quantitative phase utilized a one-group pre-test and post-test approach to measure changes in students' oral communication skills, while the qualitative phase explored students' experiences to explain the observed outcomes. Participants were selected through purposive sampling based on their enrollment in an oral communication course. The intervention consisted of structured, time-bound, and collaborative speaking tasks incorporating game-based elements, including scoring systems, team competition, progressive task difficulty, and the use of "confidence coins" and game cards as motivational tools. Results revealed a statistically significant improvement in oral communication skills (M gain = 7.06, $t(15) = -15.54$, $p < .001$), with a very large effect size (Cohen's $d = 3.88$). Qualitative findings further indicated increased motivation, active engagement, enhanced fluency and organization of ideas, and reduced speaking anxiety among participants. These findings demonstrate that structured gamified instructional strategies effectively enhance students' speaking performance and classroom participation. The study concludes that integrating gamified approaches into oral communication courses can support both the cognitive and affective dimensions of learning and recommends their inclusion in language curricula, with teacher training and further research across diverse educational contexts.

Keywords: *gamification; speech relay; oral communication; communicative competence; college students*

Introduction

Oral communication is a fundamental skill essential for academic success, professional advancement, and effective social interaction. In higher education, students are expected to demonstrate competence in expressing ideas clearly, coherently, and confidently. This expectation is supported by Republic Act No. 10533, which emphasizes the development of communicative competence as a core outcome of education, and by CHED Memorandum Order No. 20, Series of 2013, which mandates the inclusion of oral communication competencies in higher education curricula. Despite sustained exposure to formal language instruction, many college students continue to exhibit limited speaking proficiency. Persistent difficulties with fluency, coherence, pronunciation, and confidence often lead to low classroom participation and ineffective communication, indicating a gap between expected communicative competence and actual performance (Ramos & Lambenicio, 2023; Baños et al., 2023).

In the Philippine context, students generally demonstrate only moderate levels of oral communication competence, with recurring weaknesses in fluency and pronunciation (Ramos & Lambenicio, 2023). Speaking anxiety has also been identified as a significant barrier that limits students' willingness to engage in oral tasks (Pontillas & Talaue, 2021). Moreover, traditional instructional approaches, such as lecture-based discussions and voluntary recitations, often offer limited opportunities for structured, repeated speaking practice. As a result, learners may acquire theoretical knowledge of communication but struggle to apply these skills effectively in authentic speaking situations.

Recent developments in language instruction highlight gamification as a promising approach to enhancing learner engagement and performance. Gamification integrates elements such as points, competition, and collaboration into instructional activities to increase motivation and participation. Empirical studies indicate that gamified learning environments can reduce speaking anxiety and improve oral fluency among learners (Anchundia & Cedeño, 2024; López-Miguel & Jaramillo-Botero, 2020). In addition, meta-analytic evidence confirms that gamification positively affects language learning outcomes when implemented appropriately (Lee & Baek, 2023).

Despite these advantages, existing research on gamification in language learning predominantly focuses on digital platforms and younger learners. There remains limited empirical evidence on the effectiveness of structured, performance-based gamified strategies in improving oral communication skills among college students. In particular, the use of speech relay activities as a gamified instructional approach has not been extensively examined. Furthermore, many studies emphasize motivation and engagement without directly measuring improvements in specific speaking competencies such as fluency, coherence, spontaneity, and confidence.

This study is anchored in Gamification Learning Theory (Landers, 2014), Cognitive Load Theory (Sweller, 2011), and Self-Determination Theory (Deci & Ryan, 1985; revised in 2017), which are conceptually interconnected in explaining how gamified instructional strategies enhance oral communication skills. Gamification Learning Theory provides the structural foundation by emphasizing how game elements such as points, competition, and rewards increase learner engagement and sustained participation in speaking tasks. Building on this



engagement, Cognitive Load Theory explains how learning is optimized when tasks are structured, time-bound, and progressively organized, enabling students to manage mental effort, process information efficiently, and organize their ideas during communication. Complementing these, Self-Determination Theory highlights the motivational dimension of learning, explaining how the fulfillment of autonomy, competence, and relatedness through collaborative and feedback-rich activities enhances intrinsic motivation, confidence, and willingness to communicate. Together, these theories function synergistically: gamification elements initiate engagement, structured task design supports cognitive processing, and motivational mechanisms sustain participation and confidence. This integrated framework informs the design of the Gamified Speech Relay Challenge and explains how it facilitates improvements in students' fluency, coherence, organization of ideas, and overall speaking performance.

This study is significant in several ways. For students, it enhances oral communication competence and confidence necessary for academic success and real-world interactions. For teachers, it provides an evidence-based instructional strategy that promotes active participation and meaningful speaking practice. For curriculum developers, it offers empirical support for integrating structured gamified approaches into language programs to improve communicative competence and learning outcomes.

To address these gaps, this study investigates the effectiveness of a Gamified Speech Relay Challenge in enhancing the oral communication skills of first-year college students by determining the level of students' oral communication skills before the intervention, examining whether a significant difference exists between pre-test and post-test scores, exploring students' perceptions of the gamified learning experience, and identifying the improvements in their oral communication skills following the intervention. The null hypothesis of the study states that there is no significant difference between students' pre-test and post-test oral communication scores after the implementation of the Gamified Speech Relay Challenge.

Methodology

This study employed an explanatory sequential mixed-methods design, consisting of a quantitative phase followed by a qualitative phase. The quantitative component utilized a one-group pre-test and post-test quasi-experimental design to determine the effect of the intervention on students' oral communication skills. This was followed by a qualitative phase to explain and provide deeper insights into the observed changes in students' performance. The integration of both phases allowed for a comprehensive understanding of the effectiveness of the Gamified Speech Relay Challenge.

Participants

The participants were sixteen (16) first-year college students enrolled in an Oral Communication course at the University of Saint Anthony. A purposive sampling technique was employed to select respondents who were currently enrolled in the course and who represented learners transitioning to higher education, where oral communication skills are essential for academic participation. This sampling approach was appropriate, as it enabled the study to focus on a specific group of students who commonly experience difficulties with speaking, thereby ensuring alignment with the research objectives.

Instrumentation

The study utilized a researcher-developed oral communication rubric to assess students' speaking performance. The rubric measured key components of oral communication, including content and organization, fluency and spontaneity, pronunciation and intonation, grammar and vocabulary, confidence and delivery, and relevance and depth of response.

The development of the instrument was anchored on the policy framework and regulatory guidelines of the Commission on Higher Education through CHED Memorandum Order No. 20, Series of 2013 (CHED, 2013), which mandates the development of oral communication competencies in higher education. In addition, the rubric was aligned with the descriptors of the Common European Framework of Reference for Languages (Council of Europe, 2001), ensuring consistency with internationally recognized standards of communicative competence.

To establish content validity, the rubric was reviewed by language and communication experts who evaluated its clarity, relevance, and appropriateness for assessing students' oral performance. The same instrument was used during both the pre-test and post-test to ensure consistency and comparability of results.

Procedure

The study was conducted over a period of five (5) weeks and consisted of three phases: pre-test, intervention, and post-test. During the pre-test phase, participants' baseline oral communication skills were assessed using the rubric.

The intervention phase involved implementing the researcher-developed Gamified Speech Relay Challenge via a web-based application. The intervention incorporated structured, time-bound, and collaborative speaking tasks with gamified elements, including points, leaderboards, time constraints, team-based competition, confidence coins, and game cards, to enhance student engagement and participation in oral communication activities.

Following the intervention, a post-test was conducted using the same rubric to measure changes in students' oral communication performance.

After the quantitative phase, a qualitative phase was conducted through Focus Group Discussions (FGD) with selected participants to explore their experiences, perceptions, and challenges during the intervention. The qualitative data were used to explain and contextualize the quantitative findings, consistent with the explanatory sequential design.

Statistical Treatment of Data

Descriptive statistics, including mean and standard deviation, were used to determine the level of students' oral communication skills. A paired-samples t-test was employed to determine whether there was a significant difference between pre-test and post-test scores at the 0.05 level of significance.

Prior to conducting the t-test, the assumption of normality was tested using the Shapiro–Wilk test to ensure the appropriateness of parametric analysis. In addition, effect size (Cohen's d) was computed to determine the magnitude of the intervention's impact.



For the qualitative data, thematic analysis was employed to identify recurring patterns and themes in students' responses. Verbatim excerpts were coded (e.g., P1, P2) to ensure anonymity while accurately representing participants' perspectives.

Ethical Considerations

Ethical standards were strictly observed throughout the study. Informed consent was obtained from all participants prior to data collection. Participation was voluntary, and respondents were assured of the confidentiality and anonymity of their responses.

Results

Level of Oral Communication Skills Before the Intervention

The level of students' oral communication skills before the intervention is presented in Table 1.

Table 1.
Level of Oral Communication Skills Before Intervention

Student	Pre-Assessment Score	Interpretation
1	14.00	Emerging Communicator
2	12.67	Emerging Communicator
3	12.67	Emerging Communicator
4	13.00	Emerging Communicator
5	13.00	Emerging Communicator
6	13.33	Emerging Communicator
7	14.33	Emerging Communicator
8	15.67	Emerging Communicator
9	12.33	Emerging Communicator
10	14.00	Emerging Communicator
11	12.00	Emerging Communicator
12	11.00	Emerging Communicator
13	15.00	Emerging Communicator
14	12.67	Emerging Communicator
15	15.00	Emerging Communicator
16	11.00	Emerging Communicator
Mean	13.23	Emerging Communicator
SD	1.36	

The findings indicate that students initially demonstrated limited oral communication skills, particularly in organizing ideas, vocabulary use, and confidence in speaking ($M = 13.23$, $SD = 1.36$). This suggests that students experienced both cognitive and affective challenges in oral communication tasks. These results are consistent with previous studies which identified communication apprehension, grammatical difficulties, and lack of confidence as common barriers to oral proficiency among college students (Chentez et al., 2020; Dela Cruz, 2025). Moreover, limited opportunities for authentic speaking practice may further hinder the development of effective communication skills (Baños et al., 2023).

Comparison of Pre-Assessment and Post-Assessment Scores

The comparison of students' pre-assessment and post-assessment scores is presented in Table 2.

Table 2.
Comparison of Students' Pre-Assessment and Post-Assessment Scores

Student	Pre-Assessment Score	Post-Assessment Score	Difference
1	14.00	18.00	4.00
2	12.67	21.00	8.33
3	12.67	17.00	4.33
4	13.00	17.67	4.67
5	13.00	18.33	5.33
6	13.33	19.67	6.34
7	14.33	23.33	9.00
8	15.67	26.00	10.33
9	12.33	20.67	8.34
10	14.00	21.33	7.33
11	12.00	18.33	6.33
12	11.00	19.00	8.00
13	15.00	22.00	7.00
14	12.67	21.00	8.33
15	15.00	23.67	8.67
16	11.00	17.67	6.67
Mean	13.23	20.29	7.06

The increase in mean scores from 13.23 to 20.29, with a mean gain of 7.06, indicates a substantial improvement in students' oral communication performance



after the intervention. This suggests that the Gamified Speech Relay Challenge provided meaningful opportunities for practice, leading to enhanced fluency, coherence, and confidence. These findings support existing research which shows that gamification improves student engagement, motivation, and learning outcomes (McCarthy, 2021; Leung & Chan, 2023).

Difference Between Pre-Assessment and Post-Assessment Scores

The results of the paired-samples t-test are presented in Table 3.

Table 3.

Paired Samples t-Test Results

	Mean Difference	t	df	Sig.(2-tailed)	Cohen's d	Interpretation
Pre vs Post Assessment Scores	-7.06	-15.54	15	< .001	3.88	Very Large Impact

The results revealed a statistically significant difference between the pre-test and post-test scores, $t(15) = -15.54$, $p < .001$, indicating that the improvement was not due to chance. The very large effect size (Cohen's $d = 3.88$) further confirms the substantial impact of the intervention on students' oral communication skills. These findings reinforce the effectiveness of gamified instructional strategies in enhancing learning outcomes when properly designed and implemented (Rincón-Flores et al., 2022).

Students' Experiences and Perceptions of the Gamified Speech Relay Challenge

The students' experiences and perceptions of the Gamified Speech Relay Challenge are presented in Table 4.

Table 4.

Students' Experiences and Perceptions of the Gamified Speech Relay Challenge

Theme	Description	Verbatim Excerpts
Difficulty in Organizing Ideas (Pre-Intervention)	Students struggled to structure and sequence their thoughts during speaking tasks.	P2: "My thoughts are messy... I don't know what to say first."; P6: "I often speak before I fully process what I want to say."
Low Confidence and Speaking Anxiety	Students experienced nervousness and lack of confidence when speaking in English.	P5: "My communication skill is so bad."; P8: "I feel shy because of my grammar."
Linguistic Limitations	Students reported difficulties in vocabulary, grammar, and pronunciation.	P3: "I have low vocabulary in English."; P9: "I am conscious about my grammar and pronunciation."
Improved Fluency and Spontaneity	Students developed faster thinking and more natural speech delivery.	P7: "Ideas come quickly now."; P11: "It helped me not to overthink."

Improved Organization of Ideas	Students learned to structure and connect ideas more effectively.	P10: "I can organize my thoughts better now."; P13: "I can arrange ideas into introduction, body, and conclusion."
Increased Confidence	Students reported enhanced confidence in speaking after the intervention.	P1: "I can now speak in front of people."; P4: "It boosted my confidence."
Reduced Overthinking	Students became less pressured and more comfortable during speaking tasks.	P12: "I stopped pressuring myself to be perfect."
Peer Learning and Collaboration	Students benefited from listening to peers and sharing ideas.	P14: "I learn from my classmates when they speak."
Real-Life Application	Students recognized the usefulness of acquired skills in real-world contexts.	P15: "It helps me in daily communication."; P16: "It helps me during reporting."

The qualitative findings revealed several key themes that explain the quantitative results. Prior to the intervention, students reported difficulties in organizing ideas, low confidence, speaking anxiety, and linguistic limitations. Following the intervention, students described improvements in fluency and spontaneity, better organization of ideas, increased confidence, reduced overthinking, and enhanced peer collaboration. Students also recognized the activity's relevance to real-life communication contexts.

These findings indicate that the Gamified Speech Relay Challenge not only improved students' measurable performance but also positively influenced their learning experiences and emotional responses to speaking tasks. The qualitative results, therefore, support and explain the significant improvements observed in the quantitative phase, demonstrating the value of integrating both approaches in understanding learning outcomes.

Discussion

The findings of the study indicate that students initially demonstrated limited oral communication skills prior to the intervention, as reflected in their classification as *Emerging Communicators*. This suggests that students experienced difficulties with organizing ideas, limited vocabulary, and low confidence in speaking. These challenges reflect both cognitive and affective barriers to oral communication, which are common among college learners. The findings are consistent with prior studies that identify communication apprehension, linguistic limitations, and a lack of confidence as significant factors affecting oral proficiency (Chentex et al., 2020; Dela Cruz, 2025; Baños et al., 2023).

Following the implementation of the Gamified Speech Relay Challenge, students demonstrated a statistically significant improvement in oral communication performance, as evidenced by an increase in mean scores and the results of a paired-samples t-test ($p < .001$) with a very large effect size. This indicates that the structured gamified intervention provided effective opportunities for repeated and meaningful speaking practice. The improvement in performance suggests that



gamified elements such as time-bound tasks, collaboration, and feedback mechanisms facilitated active engagement and skill development. These findings support previous research indicating that gamification enhances learner motivation, participation, and language learning outcomes (McCarthy, 2021; Leung & Chan, 2023).

The qualitative findings further explain the quantitative results by revealing that students experienced increased confidence, improved fluency and spontaneity, better organization of ideas, and reduced speaking anxiety. Students also highlighted the benefits of peer interaction and the real-life applicability of the tasks. These outcomes demonstrate that the intervention addressed not only the cognitive aspects of oral communication but also the affective dimensions that influence students' willingness to communicate. The integration of qualitative insights strengthens the interpretation of the quantitative results, consistent with the explanatory sequential mixed-methods design.

The study's results can be further explained through the integrated theoretical framework. Gamification Learning Theory accounts for the increased engagement and participation observed among students, as game elements such as competition and rewards encouraged active involvement in speaking tasks. Cognitive Load Theory explains how the structured, progressive nature of the speech relay activities helped students manage their mental effort, enabling them to organize ideas more effectively and respond with greater fluency. Self-Determination Theory provides insight into the observed increase in motivation and confidence, as the intervention supported students' sense of autonomy, competence, and relatedness through collaborative and feedback-oriented activities. The interaction among these theoretical perspectives demonstrates that engagement, cognitive processing, and motivation collectively contributed to improvements in students' oral communication skills.

Overall, the findings suggest that the Gamified Speech Relay Challenge is effective in providing a structured, engaging, and supportive learning environment that promotes both skill development and positive learning experiences. However, the effectiveness of gamified instruction depends on appropriate design and implementation, as poorly structured activities may not yield meaningful learning outcomes (Rincón-Flores et al., 2022). The results of this study highlight the importance of aligning gamified elements with pedagogical objectives to ensure that engagement translates into measurable learning gains.

Conclusions

The study found that students initially demonstrated low levels of oral communication skills. A significant improvement was observed between pre-test and post-test scores, confirming the effectiveness of the Gamified Speech Relay Challenge. Students also reported positive learning experiences, including increased confidence, improved fluency, and reduced speaking anxiety. Furthermore, the intervention improved students' oral communication skills, particularly in organizing ideas and delivering responses effectively. These findings indicate that gamified instructional strategies are effective in enhancing both learners' performance and experiences in oral communication.

It is recommended that language instructors integrate structured gamified speaking activities into oral communication courses to enhance students'

fluency, confidence, and engagement. Curriculum developers may incorporate gamified strategies into language syllabi to ensure systematic implementation. Institutions should provide teacher training to support effective use of gamification in instruction. Future studies may include larger samples, extended interventions, and explore the impact of gamification on other language skills.

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