USING GAMIFICATION TOOLS TO TEACH ENGLISH TO NAVAL FORCES PERSONNEL FOR NATO MISSION READINESS

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Abstract: *With the increasing importance of multinational cooperation within NATO operations, naval forces personnel, including officers, petty officers, and non-commissioned officers, must be proficient in English for effective communication. Traditional methods may sometimes prove insufficient, but gamification, incorporating points, competition, and real-time feedback, offers an innovative solution to enhance language learning for dynamic military operations. This paper explores the integration of gamification tools into military English training, emphasizing their effectiveness in improving communication skills, technical vocabulary acquisition, and team-based collaboration. Through case studies involving naval personnel, this article demonstrates how gamified activities, such as mission simulations, vocabulary challenges, and emergency response exercises, create engaging, task-based learning environments that mirror real-world operational scenarios. The findings indicate that gamification not only encourages higher engagement and motivation, but also enhances the readiness of naval forces personnel for NATO operations. By providing practical applications and insights from classroom implementation, this research highlights the potential of gamification to transform language training in military contexts, providing naval personnel with the language proficiency and confidence required to perform effectively in multinational missions.*

Keywords: *Gamification; military English; English for Specific Purposes (ESP); task-based language teaching; naval personnel training; interactive learning;*

Introduction

In NATO missions, effective communication is essential for the coordination and successful execution of operations. English serves as the primary language of communication among multinational forces, making it crucial for naval personnel to acquire proficiency in English for Specific Purposes (ESP), particularly in military contexts. For officers, petty officers, and non-commissioned officers preparing to participate in NATO missions, mastering military English is not solely a linguistic requirement but a critical component of operational success. They must learn technical vocabulary, command language, and intercultural communication protocols that are vital for ensuring clarity and precision in high-pressure situations.

However, traditional language teaching methods, while effective in structured classroom environments, sometimes fail to replicate the complexities and real-time demands of NATO missions. Classroom

instruction may provide learners with the necessary theoretical knowledge, but may not adequately prepare them for the dynamic and high-stakes communication challenges they will encounter during real operations. The gap between classroom learning and real-world application is especially pronounced in military contexts, where communication must be precise, immediate, and adaptable to changing circumstances.

To bridge this gap, gamification has emerged as an innovative and effective approach in language training. Gamification, defined as the use of game design elements such as points, levels, rewards, and competition in non-game contexts, has been increasingly adopted in educational settings to enhance learner engagement and outcomes (Deterding et al. 10). In language learning, gamification has been shown to increase motivation, promote active participation, and improve retention by creating more immersive and interactive learning experiences (Hamari, Koivisto, and Sarsa 3028). In the context of military English, gamification offers a practical solution by simulating the pressures and dynamics of real operational scenarios, thereby preparing learners to communicate effectively under high-pressure conditions.

This paper explores the integration of gamification tools into military English training for naval personnel. It aims to demonstrate how gamified activities, such as mission simulations, vocabulary challenges, and emergency response exercises, can enhance communication skills, technical vocabulary acquisition, and team-based collaboration. By creating task-based, immersive environments that mirror real-world NATO operations, gamification offers an engaging and effective alternative to traditional language instruction. The research presented in this paper not only highlights the benefits of gamified learning, but also underscores its potential to transform military English training, equipping naval personnel with the language proficiency and confidence required to excel in multinational missions.

1. The Evolution of Gamification: A Research-Based Perspective

The concept of gamification - the use of game design elements in non-game contexts - has its roots in early behavioral psychology and engagement strategies. While the idea of incorporating game-like features into various domains precedes its formal definition, the term "*gamification"* was first coined by Nick Pelling in 2002, a British-born computer programmer and game designer. Pelling used the term in reference to accelerating software and interface development by applying elements from video games, although this early use remained largely outside academic discourse (Deterding et al. 10).

A more structured foundation for gamification emerged in 2008, when B. J. Fogg introduced the concept of persuasive technology, which examined how digital tools, particularly game mechanics, could influence user behavior

(Fogg 1–5). His research laid the foundation for modern behavioral psychology principles that underpin engagement-driven gamification strategies. By 2010, the term "gamification" gained widespread recognition, particularly following the publication of *Gamification by Design* by Zichermann and Cunningham, which explored how game mechanics could enhance motivation and engagement in business and user experience design (Zichermann and Cunningham 14–18). Their work marked the beginning of gamification as a structured field of study.

The **Conceptualization Phase** (pre-2010) marked the early years of gamification research, primarily focused on defining the term and distinguishing it from related concepts such as serious games and game-based learning (Deterding et al. 10). Although the term *gamification* had been introduced, much of the early discourse centered on behavioral psychology, persuasive technology, and digital motivation strategies (Fogg 27). The first widely accepted academic definition was proposed by Deterding et al., who described gamification as "the use of game design elements in non-game contexts" (Deterding et al. 10). This period also saw a growing interest in how game mechanics - such as points, rewards, and feedback loops - could be applied outside traditional gaming environments to encourage user engagement.

Before this definition was established, foundational research on persuasive technology set the stage for gamification's theoretical development. Fogg (24–27) emphasized that interactive design, real-time feedback, and reward-based engagement could shape user behavior, an insight that would later become integral to gamification models. During this period, gamification remained largely theoretical, with limited empirical validation of its effectiveness. However, its potential for enhancing motivation and engagement attracted increasing attention, leading to the next phase of expansion and practical implementation (Koivisto and Hamari 195).

The Expansion Phase (2011–2015) marked a significant shift from theoretical discussions to empirical research on gamification's effectiveness. Researchers began systematically studying gamification's impact on user engagement, motivation, and learning outcomes across different fields (Hamari et al. 3028). A key contribution during this period was Werbach and Hunter's *For the Win* (25–30), which introduced a structured approach to applying game mechanics such as points, leaderboards, and badges in non-game settings. Their research helped popularize gamification in corporate training, education, and customer engagement programs (Werbach and Hunter 38). In parallel, Kapp's early work on gamification in education demonstrated how game-based strategies could enhance learning retention and engagement (1–10). He emphasized that well-designed gamified learning environments should focus not only on extrinsic rewards (e.g., points and badges) but also

on intrinsic motivation, such as curiosity, mastery, and meaningful challenge (22).

The first meta-analysis of gamification research was conducted by Hamari, Koivisto, and Sarsa, which empirically validated gamification's effectiveness in education, business, and health (3029). Their findings confirmed that gamification, when designed effectively, could improve user engagement and behavioral outcomes. By the mid-2010s, gamification had become a mainstream instructional strategy in many fields, leading to further refinements in design and technological integration (Rodrigues, Oliveira, and Rodrigues 9).

The Technological Integration and Maturity Phase (2016–Present) has been characterized by technological advancements and data-driven personalization (Riar, Morschheuser, and Zarnekow 17). Researchers have moved beyond basic game mechanics and begun integrating artificial intelligence (AI), machine learning, and adaptive learning systems into gamified environments (Koivisto and Hamari 198). AI-powered gamified learning platforms now integrate real-time feedback loops, automated assessments, and personalized challenges, enhancing individualized instruction and engagement (Rodrigues et al. 12). These innovations enable adaptive instruction, where learners progress at customized paces based on behavioral data and competency tracking (Rodrigues et al. 12).

In addition, gamification has become increasingly integrated with mobile learning, allowing users to access interactive, game-based educational content anytime and anywhere (Riar et al. 22). By this stage, gamification had evolved from a simple motivational tool into a sophisticated, data-driven instructional strategy designed to enhance long-term skill development, retention, and engagement (Koivisto and Hamari 201).

While the conceptualization-expansion-maturity framework presented in this paper is an analytical approach, rather than a universally defined academic categorization, it aligns with major trends in gamification research. This structure reflects gamification's historical development from a theoretical concept to an empirically validated, technology-driven methodology. As gamification continues to evolve, future research will likely focus on AI-driven instruction, immersive learning environments, and data-driven engagement strategies, further solidifying its role in education, business, and training.

2. Gamification Tools and Their Role in Teaching Military English

Gamification has been widely investigated in language learning research for its ability to boost learner motivation, engagement, and retention (Deterding et al. 10; Hamari, Koivisto, and Sarsa 3028). In the field of English

for Specific Purposes (ESP), gamification has proven particularly effective for enhancing professional communication skills and facilitating vocabulary acquisition through interactive digital tools, scenario-based learning, and game-based assessments (Hutchinson and Waters 53; Kessler 24).

Despite these documented benefits, the application of gamification in military English training remains relatively underexplored. Military communication is inherently structured, hierarchical, and mission-critical. As such, gamified approaches may offer valuable methods for reinforcing operational terminology, standardized phraseology, and rapid-response linguistic competencies. This section outlines the theoretical advantages of gamification for military English training, particularly for personnel preparing for multinational missions.

2.1. The Role of Gamification in Military English Training

Research consistently demonstrates that gamification enhances learner motivation and engagement through interactive challenges, real-time feedback, and clear, goal-driven progression (Kaplan and Haenlein 448). Digital game-based activities, for example, provide repeated exposure to target vocabulary in meaningful contexts, thereby promoting improved retention and fluency (Reinhardt and Thorne 415).

A notable strength of gamified learning is its ability to improve vocabulary retention via spaced repetition systems (SRS). Studies indicate that SRS-based digital platforms can significantly increase long-term vocabulary acquisition (Wozniak and Gorzelanczyk 39). In military English training – where the memorization and active use of mission-specific terminology are critical – such techniques can enhance both personnel readiness and operational efficiency.

Furthermore, serious games and simulation-based training have been successfully implemented in defense, aviation, and emergency response fields to improve procedural communication skills under high-stakes conditions (Glover 32; Kaplan and Haenlein 46). In military contexts, interactive and scenario-driven learning environments, such as role-playing exercises and simulation-based tasks, can effectively prepare personnel for real-world challenges, including radio communication protocols, multinational coordination, and the execution of mission-critical commands.

2.2. Justifying Gamification for Military English Learning

While the benefits of gamification in general English learning and ESP are well documented, its targeted application to military English instruction warrants further exploration. The structured nature of military discourse, the emphasis on precision, and the demands of high-pressure operational settings

require instructional methods that not only build linguistic competence but also support rapid, accurate communication.

Emerging research in defense training suggests that interactive role-based exercises, gamified vocabulary recall, and immersive digital scenarios can enhance decision-making, problem-solving, and communicative accuracy in operational environments (Kaplan and Haenlein 47). In military English training, these methods may help develop rapid-response communication skills essential for success in real-world scenarios.

Moreover, task-based and scenario-driven approaches - central to effective ESP instruction - are critical when communication directly impacts operational success (Reinhardt and Thorne 417). Considering that NATO mission readiness demands linguistic consistency and precision across diverse military branches and allied forces, gamified training programs can serve as a vital complement to traditional instruction. They offer an engaging framework for reinforcing mission-specific vocabulary and operational procedures while building confidence under pressure.

Building on this theoretical framework, the next section presents a case study detailing the practical implementation of gamified learning strategies within a military-flavored general English training program. The case study evaluates the impact of these strategies on learner engagement, retention of operational terminology, and overall communicative performance, thereby providing empirical insights into the applicability of gamification in defense language education.

3. Methodology

This study draws on a qualitative and quantitative case study approach to investigate the effectiveness of gamified learning in the context of military English instruction. The research was conducted at a Romanian military language training center and focused on a group of naval personnel undergoing intensive English instruction.

3.1 Participants

The participants were ten military personnel (eight male participants and two female participants) from the Romanian Naval Forces, all native Romanian speakers. They were enrolled in a nine-week English course delivered face-to-face by the Foreign Language Center of the Romanian Naval Academy "Mircea cel Bătrân." The center offers both face-to-face and online English language training programs that focus primarily on general English, while also incorporating selected military-related terminology and contexts relevant to

service members. Face-to-face courses typically last between nine and eleven weeks, depending on the proficiency level - ranging from familiarization and pre-intermediate to intermediate, post-intermediate, and advanced - and are conducted in small groups to ensure high-quality instruction. The minimum number of participants per group is eight, and the maximum is twelve. This format explains the small group size involved in the current study, which followed the standard structure for intermediate-level instruction. The gamified training activities were implemented during the eighth week of the course. This timing was selected intentionally, as the ninth and final week is traditionally designated for formal evaluation, administrative procedures, and the certificate award ceremony, during which no new instructional content is introduced.

Prior to enrollment, each participant had taken the STANAG 6001 language proficiency test, a NATO-standardized assessment that evaluates listening, speaking, reading, and writing on a scale from 0 to 3, with intermediate "plus" levels also recognized. Most participants had achieved an overall level of 1+, with no more than two skills assessed at Level 2, typically in reading and listening. The course was designed to help them reach Level 2 proficiency across all four skills, in accordance with NATO interoperability standards.

None of the learners had prior exposure to gamified instruction or digital tools such as Kahoot! or Quizlet. Participants were between the ages of 25 and 41, with a mix of officers, petty officers, and non-commissioned officers. All were actively serving and expected to operate in both NATO and non-NATO missions, making English communication a mission-critical competency.

3.2 Course Structure

The course lasted nine weeks, with six hours of instruction per day (270 total contact hours). It was designed as a military-flavored general English course - blending general linguistic development with occasional exposure to military-specific topics and vocabulary. The first seven weeks followed a conventional curriculum that incorporated military language into broader language objectives. The final week served as the intervention phase, during which gamification was introduced to assess its potential for enhancing communicative performance, vocabulary retention, and learner motivation. Activities included task-based learning, digital vocabulary games, and simulation-based communicative tasks aligned with NATO-relevant contexts.

3.3 Assessment and Data Collection

Assessment was both formative and summative, designed to capture immediate performance improvements and behavioral shifts during the gamified training. Learners were evaluated using a combination of oral production tasks, scenario-based role plays, and vocabulary quizzes. Oral production included radio communication drills and structured briefings; scenario-based performance evaluated learners' ability to respond to operational prompts such as emergency protocols and command sequences. Timed vocabulary quizzes focused on SMCP (Standard Marine Communication Phrases) and NATO terminology, emphasizing recognition, usage, and audio comprehension.

The instructor also maintained daily observation logs, recording learner responsiveness, communicative accuracy, and the ability to function in simulated operational contexts. Feedback was delivered continuously, with constructive corrections integrated into follow-up activities and debriefings. To gain qualitative insight into learner attitudes and engagement, post-session surveys and informal reflections were collected. These provided additional data on motivation, confidence, and perceived skill development.

To evaluate measurable improvement, a rubric-based scoring system was employed. Each participant was rated on a 1–5 scale across five domains: fluency and spontaneity, retention of military vocabulary, confidence in military-English scenarios, communicative accuracy under pressure, and engagement during learning. The percentage increase was calculated by comparing pre- and post-intervention scores relative to the maximum possible score in each domain. This method enabled analysis of both class-wide trends and individual learning gains.

Although the gamified component lasted only one week, the combination of performance data and learner feedback provided a reliable indicator of the instructional impact. Acknowledging the short duration, the study recommends future research include delayed post-tests or longitudinal follow-up to assess retention and long-term communicative transfer to military contexts.

4. Practical Implementation of Gamified Learning in a Military-Flavored General English Training Program: A Case Study

4.1. Introduction and Context

This section presents the practical application and measured outcomes of gamified learning strategies implemented during the final phase of a military-flavored general English training course. As detailed in the methodology, participants were Romanian Naval Forces personnel enrolled in an intensive

nine-week program combining general and military-contextualized English. The course structure, participant profile, and assessment framework have already been outlined.

What follows is a focused account of the final instructional week, during which gamification was introduced as a complement to traditional teaching. This phase served not only as a consolidation of previously taught content but also as a testing ground for interactive and task-based strategies designed to reinforce operational communication skills. The aim was to observe how gamified activities could enhance learner engagement, vocabulary retention, fluency under pressure, and self-directed language use in scenarios simulating NATO-style operations.

4.2 Implementing Gamification in Military English Training

To maximize engagement while maintaining a structured learning process, gamification was introduced gradually during the final week of instruction. Rather than replacing traditional methods, it complemented them by integrating interactive, scenario-based learning activities. These were specifically designed to mirror real-life NATO operational environments and reinforce practical language skills in mission-relevant contexts.

One of the most effective tools integrated into the program was Kahoot!, a user-friendly quiz platform that allowed the instructor to create custom military English challenges. For example, learners participated in a "Mission Readiness Quiz" that challenged them to select accurate SMCP phrases and operational language. One item asked, "Which command phrase is appropriate when ordering personnel to leave a compartment immediately?", to which the correct response was "Evacuate the compartment." Another question focused on emergency response: "Select the correct SMCP phrase for requesting medical help on board," with "Request medical assistance" as the correct choice. Learners were also tested on incident reporting, responding to a prompt such as "Which phrase should you use to report a collision with another vessel?" - the expected answer being "We have collided with a vessel." Lastly, a safety-critical item asked, "Which of the following would you use to alert crew of a man overboard?", to which the correct response was "Man overboard - port/starboard side!"

These quizzes featured multiple-choice items, sentence completion, and audio-based tasks where learners had to match spoken commands with written equivalents. Learners were timed, and the leaderboard feature stimulated healthy competition, which increased motivation while reinforcing repeated exposure to mission-critical terminology.

The inclusion of Kahoot! was deliberate and pedagogically grounded. Task-based learning principles, as outlined by Ellis, emphasize the use of meaningful, outcome-driven language use in context (Ellis 9). Timed quizzes,

by nature, support rapid lexical recall, fluency development, and decision-making under pressure - key skills in military communication. Kahoot! further offered real-time feedback and visual reinforcement, enhancing learner awareness of accuracy and progress.

In addition to Kahoot!, mission-based simulations were conducted to immerse participants in realistic naval communication scenarios. One simulation, titled "Harbor Security Breach," required small groups to issue and respond to situational updates during a fictitious perimeter breach near a naval port. Each participant had a role - radio operator, commanding officer, or lookout - and was tasked with communicating using appropriate English structures, including structured command forms and NATO-standard response protocols. For example, a learner acting as the radio operator might issue the command: "All units, proceed to checkpoint Bravo-Two. Unidentified vessel approaching restricted area. Maintain visual contact and await further instructions." This not only reinforced the use of Standard Marine Communication Phrases (SMCP), but also trained learners to operate within military-style urgency and hierarchy. These activities reflected realistic naval operations similar to those practiced during NATO's annual Sea Shield exercise in the Black Sea, which emphasizes perimeter control, radio protocol enforcement, and multinational coordination.

Digital flashcards created with Quizlet supported team-based vocabulary competitions. One particularly successful activity, "Command Word Relay", required teams to match scenario descriptions with action verbs like "reinforce", "neutralize", or "withdraw". Points were awarded for both speed and correct usage in sentence form. Participants had to produce oral responses such as: "Our task is to neutralize the threat before it reaches the southern checkpoint". The activity demanded lexical accuracy and syntactic control, promoting form-function awareness under performance pressure.

Structured role-playing activities further enriched the program by giving learners space to perform full communication sequences. In one task titled "Base Tour Briefing", students acted as guides for a visiting officer and navigated a simulated base layout. They were required to describe locations (e.g., "This is the operations center; all mission coordination and intelligence updates are managed from here") and provide procedural instructions for movement and safety. Other scenarios included reporting equipment malfunctions, relaying orders, or announcing protocol breaches using accurate English structures. The realism of these tasks helped bridge the gap between classroom learning and operational readiness.

To ensure instructional effectiveness, assessment was integrated into each session through informal performance monitoring. Rather than issuing grades, the instructor tracked each learner's responsiveness, accuracy, and adaptability under task conditions. Written tasks, such as simulated radio logs

and incident reports, were reviewed at the end of each day to identify recurring language gaps. Feedback was immediate and constructive. For instance, after a simulation involving a communication breakdown, the instructor might say: "Your message was clear, but next time say 'confirm transmission received' instead of 'did you get it' to align with standard radio protocol." This balance of gamified immersion and formal correction supported both language fluency and precision without undermining motivation.

The chosen sequence of activities was based on pedagogical coherence. Digital tools supported vocabulary acquisition and recognition; simulations and role-plays provided context-rich applications. Together, they reflected Kolb's experiential learning model, where learners move through stages of concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb 21). This cycle was reinforced daily, helping participants transition from structured practice to improvisational command usage with increasing confidence.

4.3 Quantitative Outcomes of Gamified Training

Following the one-week gamified military English session, participants were evaluated across five key performance domains: fluency and spontaneity, military vocabulary retention, confidence in military-specific scenarios, speed and accuracy under pressure, and learning engagement. These assessment categories were selected to reflect communicative competencies essential for NATO operations and were aligned with the instructional objectives of the course.

Performance was measured using a combination of oral production tasks, vocabulary quizzes, scenario-based assessments, and instructor observation logs. The table below summarizes the improvements observed across the group of ten learners.

Performance Gains Following Gamified Military English Training

Assessment Criteria	**Best Performing Participant**	**Average Increase (%)**	**Lowest Performing Participant**
Fluency & Spontaneity	92%	78%	60%
Retention of Military Vocabulary	89%	75%	55%
Confidence in Military-English Scenarios	95%	80%	68%

Assessment Criteria	Best Performing Participant	Average Increase (%)	Lowest Performing Participant
Speed & Accuracy in Communication Under Pressure	90%	74%	59%
Engagement & Motivation During Learning	98%	85%	73%

These results indicate that the integration of gamification into the training program contributed significantly to learner development across both cognitive and affective domains. Gains in fluency, vocabulary retention, and situational confidence were especially pronounced, confirming that learners benefited from exposure to repeated, meaningful practice within realistic communicative contexts.

A particularly noteworthy observation is that rank and prior role were not predictive of success. Some petty officers and non-commissioned personnel outperformed officers, especially in the categories of spontaneous communication and situational reactivity. This suggests that familiarity with digital tools and openness to interactive learning strategies may be more indicative of successful performance in gamified language settings than hierarchical status.

Given the small number of participants and the exploratory nature of this case study, no formal statistical tests (such as t-tests or ANOVA) were applied. Even so, the scoring results and the consistency of improvement across different learners offer meaningful insight into the potential benefits of gamified learning. These results are not intended to be generalized beyond the group studied. As military language courses are delivered in small, standardized groups and follow strict institutional guidelines, conducting broader comparative studies or post-course evaluations may not be feasible. However, future iterations of the course may benefit from integrating informal learner reflections several weeks after course completion, as a way of gathering insights on longer-term retention and practical use of the language in operational settings.

4.4 Learner Autonomy and Communicative Confidence

In addition to measurable improvements in fluency and vocabulary, notable behavioral changes were also observed - particularly in the areas of initiative, communication style, and learner independence. An unexpected yet significant outcome of the gamified training approach was the increase in

learner autonomy and communicative risk-taking. As the session progressed, participants began to take greater initiative in using English spontaneously, both during structured tasks and in informal exchanges with peers. The game-like design of the activities, particularly the timed quizzes and scenario-based simulations, challenged learners to act swiftly and trust their language instincts. This increased readiness to use English spontaneously aligns with what Ellis terms "pushed output" - a process in which learners are prompted to go beyond their comfort zones and produce language under communicative pressure in real time (Ellis 97).

Learners also demonstrated improved self-monitoring strategies. During role-based activities and debriefing sessions, several participants made conscious efforts to rephrase unclear sentences, correct mispronunciations, and clarify meaning - behaviors aligned with Wenden's concept of metacognitive strategies in language learning (Wenden 21–23). In group simulations, learners often assumed leadership roles voluntarily, organizing the group's approach to tasks or directing the flow of communication. This type of self-directed participation signals a shift from dependency on the teacher to a more autonomous learning orientation. As Benson highlights, autonomy in language learning is marked not only by learners taking responsibility for their progress but also by actively making decisions during the learning process (Benson 47-50).

This evolution in learner behavior also reflects a transformation in learner identity. As students internalized both the structure and communicative expectations of the training, many transitioned from seeing themselves as language learners to seeing themselves as operational communicators - capable of navigating high-stakes environments. Wenger's theory of *communities of practice* emphasizes that identity formation occurs through sustained participation in meaningful social activities, particularly those rooted in shared goals and mutual engagement (Wenger 4-5). Within the context of this training, the gamified simulations did not merely function as language exercises; rather, they served as authentic professional environments in which learners adopted military roles, communicated using operational English, and interacted within realistic scenarios. This immersive participation contributed significantly to learners' evolving professional identities and reinforced a deeper sense of competence, confidence, and belonging /within a functional language community.

4.5 Participant Reflections and Observations

In addition to quantitative assessments, qualitative data were gathered through post-session debriefs, anonymous feedback forms, and informal learner reflections. These responses provided deeper insight into how participants

perceived the effectiveness of gamified learning and how it influenced their attitudes, confidence, and communication performance. **All participant quotations cited in this section are based on original learner feedback collected during the course and have been reproduced with minor grammatical adjustments to ensure clarity while preserving authenticity.**

Participants overwhelmingly described the training as engaging, practical, and motivating. One learner remarked, *"The structured simulations helped me gain confidence in using English commands - before I hesitated, but now I feel prepared".* Another emphasized the benefit of time-bound tasks: *"The timed radio transmission exercises forced me to think faster and organize my thoughts better, which will be useful in real missions".*

Accuracy and clarity were recurring themes. One participant reflected, *"Competing in the radio drills helped me improve my pronunciation. I finally understand how small mispronunciations can change the meaning of a command".* These statements reflect heightened awareness of communicative precision - an essential aspect of military language performance.

Gamification tools such as Kahoot! were especially well received. Several participants mentioned that the quizzes were "fun but useful", helping them retain vocabulary more effectively. One stated, *"The Kahoot! quizzes were really engaging - competing with my colleagues helped me learn the military terms much faster than traditional methods"*. Another appreciated the real-time correction: *"The explanations after each question helped me fix mistakes immediately. That made a big difference"*.

Participants also responded positively to simulation and role-play elements. One shared, *"I now feel much more comfortable giving spoken commands because I practiced in a real scenario rather than just memorizing phrases"*. Another added, *"The communication drills helped me speak more naturally and react faster in military English conversations"*.

These reflections support the idea that gamified instruction not only improved linguistic output but also enhanced learner confidence, risk-taking, and engagement. In line with the findings of Hamari et al. and Kapp, learners expressed that motivation, competition, and contextual relevance were critical to their progress (Hamari et al. 3028; Kapp 23-25).

Together, the quantitative gains and qualitative reflections paint a consistent picture: gamification, when aligned with real-world tasks and learner needs, is a highly effective strategy for teaching military English. It promotes not only vocabulary retention and performance fluency but also fosters positive learner attitudes and a sense of operational readiness.

5. Conclusion

The findings of this study confirm that even a brief, well-structured period of gamified instruction can lead to notable improvements in military personnel's

English proficiency. Interactive, competitive, and task-based learning techniques were shown to enhance vocabulary retention, communicative fluency, and confidence under pressure, particularly when embedded within mission-relevant contexts.

However, the success of gamification was not attributed to game mechanics alone. Rather, its effectiveness stemmed from its deliberate integration with traditional instructional strategies, including explicit language explanation, corrective feedback, and structured practice. This blend of innovative and conventional methods ensured that the motivational benefits of gamification did not come at the expense of linguistic accuracy and operational clarity.

Digital platforms such as Kahoot! provided accessible and engaging ways to reinforce key terminology and phrase recognition, while scenario-based tasks and mission simulations offered learners opportunities to apply language skills in authentic, high-pressure environments. These components enhanced rapid response skills, strategic thinking, and operational readiness - critical competencies for NATO and non-NATO communication settings.

While the study revealed significant short-term progress, a follow-up assessment several weeks or months after course completion would be essential for evaluating long-term vocabulary retention and communicative fluency. Long-term insights of this kind could help determine whether the skills acquired during gamified instruction are sustained and transferable to real-world operational environments, such as NATO joint exercises or mission deployments.

Ultimately, this study supports the view that gamification is not a novelty but a viable instructional enhancement in military English training. When thoughtfully implemented, it promotes engagement, reinforces retention, and builds communicative competence in ways that align with the demands of contemporary military operations. Future research may explore long-term applications of gamified instruction or compare its impact across different military branches, training levels, or linguistic backgrounds to further refine and broaden its implementation.

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