Journal of Applied Linguistics and Languages in Educational Digital Settings

1 | 2025

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Edited by Bronwen Hughes and Margaret Rasulo

UniorPress

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ALLiED

Journal of Applied Linguistics and Languages in Educational Digital Settings (ALLiED Journal)
Rivista internazionale di Linguistica applicata a cura del Centro Linguistico di Ateneo dell'Università L'Orientale, CLAOR.
The *Journal of Applied Linguistics and Languages in Educational Digital Settings* (*ALLiED Journal*) is an international peer-reviewed journal aiming to contribute to the evolving field of research placed at the intersection of linguistics, language studies and education.

Università di Napoli L'Orientale

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Rivista semestrale
n. 1 | 2025

Data di pubblicazione
marzo 2025

ISSN 3035-5788

UniorPress
Via Nuova Marina, 59 - 80133, Napoli
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Gamifying English Learning and Assessment to Reduce Anxiety and Foster Speaking Skills: The Case of Secondary School Students

Abstract

In Italy, the prevailing challenge for students lies in the intense pressure experienced during oral and written tests, emerging as a primary source of anxiety and stress within the educational environment. Moreover, despite significant investment in learning English as a foreign language (EFL), students often face frustration and demotivation due to inadequate language competence. This paper explores the potential of gamification to engage students and enhance their comfort and confidence in the learning process. Drawing on game-informed theories, gamification is viewed as a tool capable of fostering autonomy, competence, and relatedness in learning, redirecting students' efforts towards goal attainment, and leveraging motivation through explicit feedback, recognition, and rewards. However, studies emphasise the critical importance of careful design, acknowledging the complexity of student motivation and the potential variability in the effectiveness of gameful learning strategies. While gamification has gained attention in recent years, its application as an assessment and design tool in Italian EFL programs remains underexplored. The article presents the outcomes of a qualitative case study involving 27 Italian secondary public school students aged 15-18. The research demonstrates positive and promising results in favour of gamification by utilising tools such as surveys, interviews, focus groups, and participant observation. The findings highlight its positive impact on student motivation, language competence, and the implementation of accessible assessment procedures to lower school anxiety.

Keywords: gamification, EFL, assessment, speaking, anxiety, secondary school

1. Introduction

This article presents findings from a doctoral dissertation[1] that explored the use of video games and gamification to reduce the affective filter (inhibition caused by anxiety) in English as a foreign language (EFL) acquisition and student stress related to assessment. The intervention, "Gameful English",

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[1] D'Adamo Francesca, doctoral thesis, 2023. Available online at <http://hdl.handle.net/2445/202700> (Last accessed: November 14, 2024).

was developed for standard secondary school classes as a supplemental virtual course designed for standard secondary school classes and based on game-enhanced and game-informed computer-assisted language learning (CALL) theories. This study investigates how a gameful[2] approach can be integrated into the curriculum to potentially lower anxiety associated with traditional grading and promote speaking skills.

Italian students study English for a very long period in their educational career, from 6 to 16 years old, plus the last three years of high school and, in some cases, a few years in kindergarten. Despite the time spent, it does not seem sufficient to guarantee them an acceptable level of competence,[3] which often leads to frustration (and consequent demotivation) the first time they face the real language (Santipolo 2016).

The plausible causes for the marginal learning outcomes from school-based English language instruction can be ascribed to the limited opportunities to speak English in class (Gan *et al.* 2019). Moreover, according to Dörnyei (2001), the problem is that most tasks are imposed on the students in school environments: they are not involved in designing their learning schedules or choosing which activities to engage in. Most of the time, extrinsic motivation (the need to pass exams, get a better mark, etc.) is used by teachers to motivate learners. These "carrot and stick" methods can extinguish intrinsic motivation, diminish performance, crush creativity and foster short-term thinking (Dörnyei 2001).

Another central issue to consider is the impact of school stress and anxiety on the students and their learning outcomes. In Italy, according

[2] Jane McGonigal used the term "*gameful*" in her book, *Reality is Broken* (2011), inviting the reader to be a truly *gameful* person, which meant "to act like a gamer". The word had already been in circulation in a similar context since at least May 2009, when an Urban Dictionary entry contributed by "Avantgame" gave this definition: "Having a gamer's mindset or attitude. Like playful, but more oriented toward achieving goals, trying out different strategies, and taking on new challenges". "*Gameful*" is not a 21st-century neologism: the word appeared in the early 1200s, according to the *OED*. For many centuries it meant "full of pleasure or enjoyment" and, a little later (and longer), "playful, sportive, light-hearted, jesting, humorous".

[3] In 2019 EF EPI data on Italian schools, only 30% of students in public secondary schools, middle schools and high schools, reached level B2, i.e. the minimum learning level required by the labour market and the initial entry requirement for many foreign universities. Moreover, while 40% of students reach B2 in urban areas, the percentage drops to 25% in provincial schools (EF Italia n.d.).

to recent studies (D'Agostino *et al.* 2022; Melchiori 2018), students feel so much pressure during oral and written tests that it is the predominant cause of anxiety and stress at school.[4] Thus, coping with anxiety becomes essential to enhance individual performance, and teachers have a leading role in reducing pressure because they can build good relationships with all students and improve the school environment (D'Agostino *et al.* 2022).

Starting from these assumptions, to make students feel more comfortable and confident to enhance learning and lower stress and anxiety, Flores (2015) thinks rewards (and gamification in general) complete an educational process, generating positive socio-emotional reactions which facilitate learning. The same idea is also confirmed by the crescent number of courses on gamification for teachers, and different theoretical studies (Swacha 2021), exploring practical solutions for the benefit of the students.

2. Method

According to CALL theories (Cornillie *et al.* 2012; Reinhardt/Sykes 2014; Reinders/Chik 2016; Reinders 2012; Reinhardt 2019), gameful principles of goal-oriented game task design can be applied to second language (L2) learning tasks, gamifying a course through game elements (gamification).

Gamification means purposefully applying game design elements to non-game contexts (Deterding *et al.* 2011; Mora *et al.* 2015), suggesting a course may be enhanced by incorporating game elements like leaderboards (motivation), points or scores (progress tracking), trophies, badges, or achievements (recognition), and quests (task structure) (Alexander *et al.* 2019). In this context, gamification refers to the purposeful application of a specific set of elements (points, badges, and leaderboards) in a non-traditional setting (an extracurricular school course). This approach is distinguished as "gameful learning", which emphasises integrating the core mechanics of games (user choice, emotional narratives, immediate feedback, and learning from failure) into the fundamental course design (Fishman/Deterding 2013).

[4] PISA 2015 report results (OECD, 2017) show that compared to the OECD average of 37%, 56% of Italian pupils become particularly nervous when preparing for an exam and continue to be nervous (70% compared to 56% of the OECD average) even when adequately prepared. Students widely declare that they are 'terrified' of bringing home a bad grade: about 85% of Italian student respondents declared this fear, which is less widespread in the other countries participating in the survey (65% on average).

It's important to clarify that neither gamification nor gameful learning necessitates incorporating entire games into the classroom. Technology and computer games are not essential for a gamified course design, as the core principles draw on the psychology behind gaming rather than the games themselves (Alexander *et al.* 2019).

The use of reward-based strategies in education has a long history, with traditional methods like gold stars serving a similar purpose to digital badges. However, this reliance on extrinsic motivators (external rewards) has led some to criticise gamification for potentially undermining intrinsic motivation (the desire to learn for its own sake) (Mekler *et al.* 2013). Additionally, questions have been raised about the relationship between gamification and student enjoyment of learning (Dale 2014).

Proponents of gamification, on the other hand, emphasise its potential to enhance student motivation and promote a variety of learning outcomes, both cognitive (knowledge-based) and non-cognitive (e.g., critical thinking skills) (Hanus/Fox 2015; Huang/Hew 2015; Lister 2015). They argue that gamification can empower students by introducing choice, fostering creativity, and providing opportunities for critical thinking.

According to Werbach and Hunter (2012), gamification elements can be represented as a pyramid. The game dynamics, which are the foundational principles that make a game engaging, like narrative, relationships, choice, emotions, constraints, and progression are at the top. These dynamics are supported by the game mechanics, which are the specific actions or rules that govern gameplay, like resource acquisition, rewards, challenges, competitions, change, feedback, transactions, turns, and cooperation. The bottom level includes the game components (collections, badges, leaderboards, gifting, social graphs, quests, points, teams, virtual goods, achievements, avatars, content unlocking, combat, and boss fights), which are the tangible elements that players interact with.

Game dynamics are the most high-level conceptual elements in a game or a gamified system (Dichev/Dicheva 2017). Constraints are an essential part of these dynamics, as they limit players' freedom and create opportunities for meaningful decision-making (Nicholson 2015). The notion of 'what' constraints is a fundamental dynamic that any game designer must deem (Lee/Hammer 2011).

Progression, another key dynamic, refers to the sense of advancement players experience, not just through levels but also through responsive difficulty adjustments (Dynamic Difficulty Adjustment - DDA) that personalise the challenge (Werbach/ Hunter 2012). DDA represents a fundamental shift in thinking about the shared educational experience. This allows differentiated learning experiences tailored to individual student needs and interests (Hanus/Fox 2015). Most gamified systems emphasise the concept of progress (Caponetto *et al.* 2014), even without using points or levels, to motivate learners and keep them engaged.

Narrative is the game dynamic which plays a central role in uniting the various elements of a gamified system and fostering a sense of coherence (Armstrong/Landers 2017; Cheong *et al.* 2014; Turan *et al.* 2016). Narratives can be explicit (like storylines in games) or implicit. While gamified learning experiences may not have the same level of visual or aesthetic richness as traditional games, they can still leverage narrative elements to frame activities in a meaningful way (Armstrong/ Landers 2017). A well-crafted narrative can prevent a gamified system from becoming a collection of disjointed elements. However, adapting traditional narratives to educational settings presents a challenge. Unlike predetermined video game scripts, classrooms thrive on student agency and exploration. Learners may choose alternative paths, requiring narratives to be flexible and responsive to these deviations (Armstrong/ Landers 2017). This topic of narrative design in gamified learning environments warrants further exploration, considering how to create engaging narratives that accommodate student choice while maintaining a sense of coherence.

Relationships are game dynamics, too: people interact with each other, friends, teammates, and opponents; social dynamics play a fundamental part in the game experience (Hanus/Fox 2015).

If the dynamics can be thought of as the grammar, the game mechanics are the verbs of the game or gamification, the elements that move the action forward (Werbach/Hunter 2012). Challenges, chance, cooperation, competition, feedback, resource acquisitions, rewards, transactions, and turns are various tools that drive the action forward, get the players in the game, and go from one state to another. Sicart (2008) defines game

mechanics as methods requested by agents and designed for interaction with the game state.

In the educational context, this could be revisited as methods requested by instructors and designed to increase student interaction with the subject matter: assigning points for completing homework exemplifies a game (or gameful) mechanic; consequently, gameful learning revolutionises teaching methods by integrating diverse and unique game mechanics into the instructional design (Alexander *et al.* 2019), using the game components, that can be so defined as the tangible forms of mechanics and dynamics.

Common game components used in gamification include achievements (recognising specific actions), avatars (visual representations of the player's character), boss fights (risky challenges to overcome to pass to the next level), collections (sets of items), combat, content unlocking (awards to have access to other contents), gifting (the opportunity to give a gift to other players), leaderboards (rankings), quests, teams, and virtual goods (digital rewards) (Werbach/Hunter 2012). These components can enhance the learning experience by providing a sense of accomplishment, fostering social interaction, and promoting goal achievement.

A key aspect of gamified learning is student agency, which refers to the ability of students to make choices about their learning path. For example, teachers might offer a variety of assignments with different difficulty levels and point values. Students can then choose which assignments best suit their strengths and schedules, allowing them to balance workload while maximising their learning opportunities.

However, it is important to consider the risks associated with incorporating high-stakes challenges in gamified learning environments. According to Adelson (2007), risks should be low to medium stakes to encourage participation. If students perceive the consequences of failure as too severe, they may avoid taking on challenges altogether. Furthermore, high-stakes assessments can stifle creativity, as students prioritise performing well on those specific tasks over broader learning opportunities (Berliner 2011; Pandina Scot *et al.* 2008; Taylor *et al.* 2008).

A gameful learning design may always consider the risks when promoting student self-efficacy or the belief that the learners can manage their learning process, fostering motivation and improving persistence through tasks (Komarraju/Nadler 2013; Zimmerman 2000). Well-

designed gamified learning allows students to take calculated risks, make mistakes, and use new knowledge to overcome challenges (Kapur/Bielaczyc 2012). Students can grow from failure if given the tools and opportunities to do so (Alexander *et al.* 2019). Learning from mistakes is core to the concept of "saving" in games and aligns with the growing interest in adversity education. This field explores how to teach non-cognitive attributes like grit (persistence), growth mindsets, and curiosity (Catalano *et al.* 2018; Dweck 2008; Hochanadel/Finamore 2015). Research suggests these attributes may be better predictors of student success than traditional measures like grades (Alexander *et al.* 2019). Gamified learning, with its intentional integration of these principles, can provide a solid research base for developing effective teaching strategies.

A recent study by Anisa *et al.* (2020) investigated the effects of gamification on motivation for learning English as a foreign language at the secondary school level. Their results are promising, showing increased intrinsic and extrinsic motivation alongside a more enjoyable classroom atmosphere. However, they caution that effective gamification requires careful design, not a simple application of game elements. To address this, Rivera and Palmer Garner (2021) propose a "Gamification for Student Engagement Framework". This framework aims to help educators design gamified learning experiences by selecting appropriate game attributes based on desired student engagement and outcomes. Further research using this framework can provide more empirical evidence about gamification's effectiveness in achieving these goals.

Allowing students to feel more comfortable while speaking a foreign language and reducing that sense of frustration towards bad marks, which leads to high levels of anxiety before and during a test, could find in gamifying learning an opportunity to explore. Self-determination theory (Ryan/Deci 2009) posits that students are more motivated when they feel a sense of autonomy over their learning. Gamified learning can foster this autonomy by allowing students some control over their learning experience, such as choosing their learning paths within the game's framework. This sense of control can also help reduce anxiety associated with language learning, particularly the fear of receiving bad marks (Ryan/Deci 2009). As a consequence, a gameful learning approach will be most successful when it aligns with both student experiences and interests, as well as the teacher's

needs: gamification and gameful learning are not "right" for every teacher[5] or classroom (Lombardi 2015).

A key distinction between traditional and gamified courses lies in assessment. Traditional courses often start students with full points that can be deducted for mistakes. Gamified learning, on the other hand, utilises an incremental point system where points are slowly accumulated over time (Dicheva *et al.* 2015). This approach emphasises mastery over linear progression and has shown positive effects on students of all levels, particularly those who struggle in traditional settings (Kulik/Bangert Drowns 1990).

It's important to remember that game elements (dynamics, mechanics, and components) are just the building blocks of gamification. They are tools that designers can use, but their success hinges on how they are integrated (Mora *et al.* 2015; Hamari *et al.* 2014; Cheong *et al.* 2014).

The following section will detail how gamification was applied to both the structure and the assessment in an extramural extracurricular EFL course named *Gameful English* at a secondary school level.

2.1 The design

Gameful English was designed as a pedagogical intervention within an exploratory, qualitative case study. This intervention aimed to integrate gamification principles with a commercial video game (*Minecraft*)[6] to enhance EFL learners' speaking, listening, and vocabulary skills while mitigating anxiety and stress during assessments. A gamified system informed both the course design and student assessment. The course structure consisted of an initial session (level 0), nine gamified sessions with pre-play, during-play, and post-play phases (Table 1), and a concluding follow-up session (level 10).

[5] Although the teacher does not have to be a gamer to integrate the mechanics, expertise with games may affect the instructor's comfort level (Lombardi 2015).

[6] The students chose to play *Minecraft* before the implementation started, among a list of other possible games promoting learning affordances.

PRE-PLAY	*DURING-PLAY*	*POST-PLAY*
Introduce wraparound tasks and do preview subtasks (i.e., vocabulary preview)	Get knowledge of the task	Do post-play tasks (assignments based on *Minecraft* recorded gameplay)
Review the past play session and debriefing tasks (post-play phases, usually given as assignments) with a focus on new goals and strategies for the next during-play phase	Play *Minecraft* Multiplayer (creative, survival, mini-games) No time limitation	Debriefing (opportunities for reflection and integration of what students have learned about the game rules, narratives, and language used while playing)
	Record the gameplay (15-20 min)	
Class	Home	Home/Class

Table 1. Structure of a Gameful Session. Author's design.

The pre-play phase, conducted in class, introduces the topic with wraparound tasks (acronyms in web chats, exploring biomes, watching different gameplay styles, commenting on YouTube videos, etc.). It also reviews the vocabulary and the debriefing tasks (assignments). This phase encouraged active student participation through discussions and problem-solving related to the upcoming gameplay. The during-play phase was voluntary and conducted individually at home. Students could choose their gameplay modality and decide whether to complete the assigned task while playing. Recording 15-20 minutes of gameplay served as a resource for the post-play phase, where students could integrate and discuss their learning experiences within and around the game (narrative, rules, vocabulary).

The course consisted of an initial session (level 0) outlining the pre-play, during-play, and post-play phases. Subsequent scaffolded levels (1–9) presented increasingly challenging activities. A concluding follow-up session (level 10) involved a general debriefing with student presentations of their final products (edited gameplay commentary). Student work aligned with specific learning objectives (literacies, language areas, competencies) and was submitted before the next session. Moreover, each task is aligned with assessment measures (points) and displayed on a leaderboard. Points

are assigned not on the student's actual performance in the gameplay, but on the wraparound activities and assignments, according to specific evaluation grids given during the initial session.

Gameful English incorporated gamification elements (leaderboard, points, and badges) as an alternative assessment method. The structure, adapted from Ajlen *et al.* (2020) (Appendix 1), employed various dynamics (narrative, progression, constraints) and mechanics (rewards, feedback, challenges) that students managed. These "rules" were clarified before the course began to ensure transparency and equal opportunity for success. This gamified approach aimed to significantly reduce anxiety and stress associated with traditional written and oral exams, as the overall process (including wraparound activities and alternative assignments) contributed to the final grade, not just individual tests.

2.2 Participants, implementation, and data collection and analysis

Twenty-seven public high school[7] students aged 15–18 participated in the ten-week online intervention (October–December 2021). The weekly hour-long sessions, held in the afternoon, were conducted on Google Meet. The students were divided into three groups based on language proficiency (B1–B2) to facilitate gamified learning.

Students earned points for completing tasks, with the opportunity to achieve the highest score on the leaderboard (100 points), pass a threshold (60 points), and earn badges. Badges were awarded for various achievements, including full attendance, school extracurricular credits, consistent performance, peer review participation, and exceptional gameplay. Google Suite for Education tools facilitated communication, assignment submission, and student score tracking on the leaderboard. The leaderboard was updated weekly on the course's Google Classroom page, and all submitted tasks received feedback and evaluation. Participation was high, with 84% of students attending at least nine out of ten sessions.

The researcher was not affiliated with the participating school to ensure data impartiality, and student grades were not affected by their participation in the course. Students received credits for their involvement.

[7] The implementation was carried out at the "Liceo Scientifico Enrico Fermi", located in Gaeta (LT), Italy.

Qualitative data was collected through various tools: an anonymous end-of-implementation survey with a Likert scale (Appendix 2), semi-structured interviews with students and their teachers, focus groups, and participant observation to triangulate the findings. Data analysis was conducted using Microsoft Excel.

3. Results and discussion

Given that this was the participants' first experience with gamification in an educational setting, their feedback was crucial for evaluating the impact of the implemented methods (points, badges, leaderboard – PBL) and gamified assessments on student stress, anxiety, and speaking activities during the intervention. Another key aspect of the study was to investigate students' perceptions of their English language learning progress due to gamification, particularly regarding speaking skills compared to their regular English classes.

Students reported high levels of curiosity and interest in the novel approach. According to them, experimenting with a new method could increase enthusiasm for learning activities. The immediate feedback provided upon task completion functioned as a motivating factor from a psychological perspective: students felt they had a clear understanding of their progress and any potential difficulties, allowing them to implement corrective measures as needed.

The course structure was well-received by the students, who identified the gamification elements employed in the design. These elements included progressive difficulty levels, repetition of specific language structures, opportunities for "practice runs" before challenges (allowing students to understand the task requirements before applying them), a points system, a leaderboard, badges, "boss fights", and the ability to exercise strategic decision-making to progress through the course.

Students reported high satisfaction (96.1%) with the methodology and its practical approach, ("Did you enjoy this new method? What in particular?" – Interviews), particularly appreciating the role of the teacher as a guide in the learning process.

Interviews revealed that students valued the opportunity to speak freely about their interests without the pressure of traditional assessments. The design of *Gameful English* fostered the teacher's role as a coach, with all

students (100%) perceiving a gradual and guided learning process ("Did you feel it was a gradual and guided learning?" – Interviews). No task was introduced without prior explanation of the topic, vocabulary, and solution strategies during class time. This approach positioned the teacher as a source of comfort, encouragement, and motivation. As the teacher was not the leader but someone who promoted independence and self-confidence, the students saw this figure as a reference who could help in case of problems or clarify linguistic doubts they may encounter. These findings support the observations of Barajas *et al.* (2018) regarding the potential of game design to enhance teacher-student interactions: the learning process has greater value than the outcomes because game design promotes risk-taking and use of failure as a positive learning factor, promoting mutual respect, dialogue, and negotiation.

To deepen the assessment of the method, students were also asked to identify any tedious activities encountered during the implementation. The majority of students (65.4%) could not relate to any boring activities ("What was boring?" - Interviews). Having established the overall positive student perception of the *Gameful English* course, another important aspect to consider was its perceived affordability (difficulty level, workload). When asked in interviews about any difficulties encountered (related to course structure, teacher interaction, language, tasks, etc.), student responses (80.8%) demonstrated a high degree of agreement, indicating that they found the course manageable.

While some students identified more challenging aspects, this did not significantly impact participation or completion of sessions and assignments. Eight out of the 27 students did not pass the threshold (60 points out of 100). Interviews with these students revealed that, despite enjoying the course and its structure, various factors contributed to not reaching the threshold: two students cited school workload, two reported a lack of motivation, one student prioritised other commitments, and another student enrolled with the misconception that the course would be less demanding.

Evaluation is a crucial element of the overall course assessment, providing learning feedback for students and teachers. Students were asked if they perceived the use of points and gamification as a fairer and more egalitarian approach compared to traditional school assessment methods, which are often cited as a source of stress and anxiety. Student responses were mixed:

while a majority (66.6%) leaned towards gamification promoting fairness and equality, some students (18.5%) remained undecided, and a smaller group (approximately 15%) did not perceive any significant difference compared to their standard courses (Figure 1).

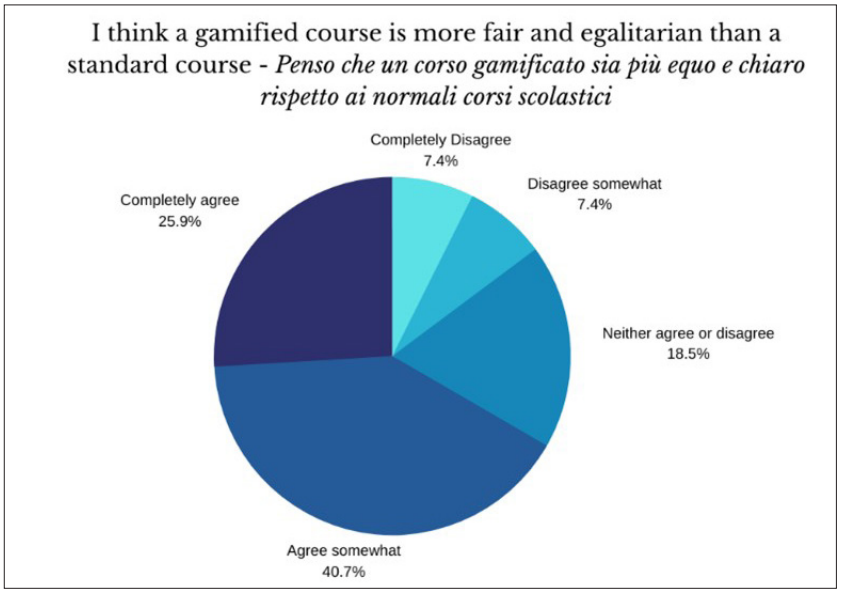


Figure 1. Students' comparisons between *Gameful English* and EFL school course. Fairness. Survey.

Over 50% of the students perceived the gamified assessment as fairer and more egalitarian than traditional methods. They appreciated the perceived equal opportunity to achieve a high position on the leaderboard, regardless of individual starting points. Additionally, students noted the flexibility of the system, allowing them to adjust their strategies to acquire more points throughout the course. Focus group comments indicated that students viewed the gamified approach as a continuous improvement process, where each task or assignment contributed to their overall learning rather than being evaluated in isolation.

This gamified assessment provided an alternative method for evaluating student work and learning outcomes. To assess student perceptions of the broader applicability of gamification, students were asked if, based on their experience with *Gameful English*, they would recommend a gamified

assessment for other courses. The results were overwhelmingly positive, with only one student expressing some disagreement. As shown in Figure 2, 89% of the students indicated a general willingness to see gamification applied in other school courses.

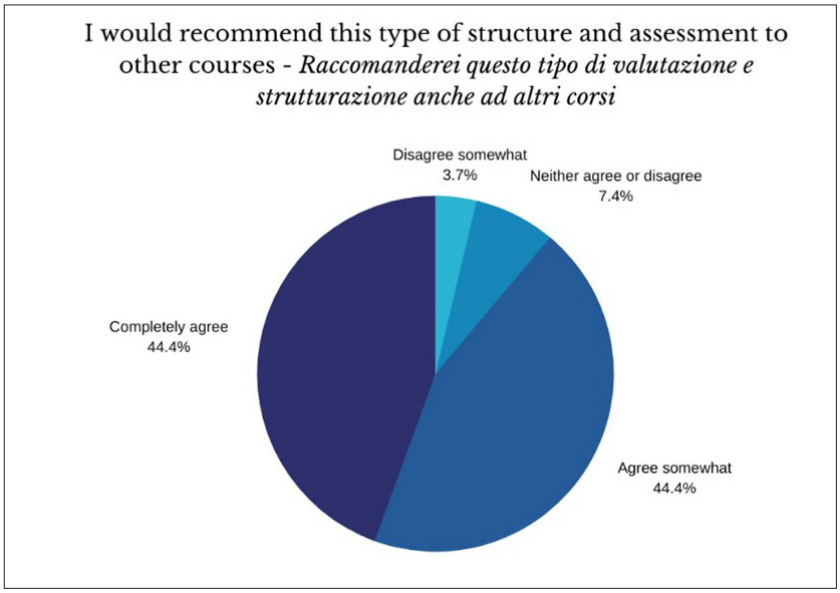


Figure 2. Students' evaluations of gamification as an assessment method. Survey.

The desire for gamified elements in other courses was also confirmed during the interviews, although some raised concerns about feasibility, citing a potential for the educational system to become overly focused on video game culture ("Would you like to have other gamified courses at school?" - Interviews).

Overall, a significant majority of students (92.3%) found the gamified assessment to provide valuable feedback on their work. They appreciated the feedback's clarity, motivational aspects, and emphasis on challenge and fairness ("What do you think about the feedback you received?" – Interviews). Students valued the sense of gradual progress made evident by the leaderboard. This visibility allowed them to monitor their performance and adjust their learning strategies as needed. Focus group discussions revealed that students perceived it easier to recover from a lower score in a

gamified system because each task offered an opportunity to improve. In contrast, traditional grading methods, which often rely on averaging scores, can lead to a loss of motivation to improve after a poor performance. Students felt that gamification fostered a sense of agency in their learning process, with clear guidance and active participation in knowledge acquisition.

By the end of the intervention, a large majority of students (92.3%) viewed gamification as a reliable and tangible indicator of their progress ("How do you judge gamification in terms of your learning?" – Interviews). The method was perceived as efficient and objective in assessing learning outcomes due to the clear and consistent rules established from the outset. This clear feedback structure allowed students to recognise the connection between their actions and learning. They perceived the learning path as accessible and well-defined, providing evidence of progress and a sense of control over their learning experience, thus supporting the observations of Tekinbas/Zimmerman (2003).

Both students and teachers emphasised the value of immediate error correction with brief explanations during interviews ("How did you/your students perceive the error correction?" – Interviews). This approach was appreciated for its contribution to learning, as feedback is essential for self-assessment (Sykes/Reinhardt 2013). Students' perceptions of errors also shifted due to the task evaluation rubrics. Knowing the scoring criteria and potential point distribution beforehand allowed students to make informed choices that contributed to successful learning outcomes (Sykes/Reinhardt 2013). Thanks to gamification, students were actively engaged in their learning, with their scores reflecting their effort. These findings support Armstrong and Landers' (2017) observations that gamification fosters a sense of equality through a positive narrative that presents activities with alternative pathways. Mistakes became learning opportunities rather than sources of discouragement, as students perceived them as opportunities for improvement. The ability to recover from errors through additional tasks aligned with the growth mindset perspective encouraged by Alexander *et al.* (2019).

Gamifying learning hinges on continuous feedback, fostering a sense of control and awareness that can influence future performance and lead to greater acceptance of setbacks. No single assignment carried undue weight, as opportunities to counterbalance failures were always available. The frustration of encountering difficulties became a motivator to tackle challenges again, with the benefit of new knowledge and strategies acquired from previous attempts.

Furthermore, gamification offered alternative paths to achieving goals. In *Gameful English*, some optional tasks were designed to help students to improve their scores. The majority of students (55.6%) found these tasks more enjoyable than those in their regular courses. Interestingly, none of the students reported any preference for traditional school assignments over the tasks used in *Gameful English* (Figure 3).

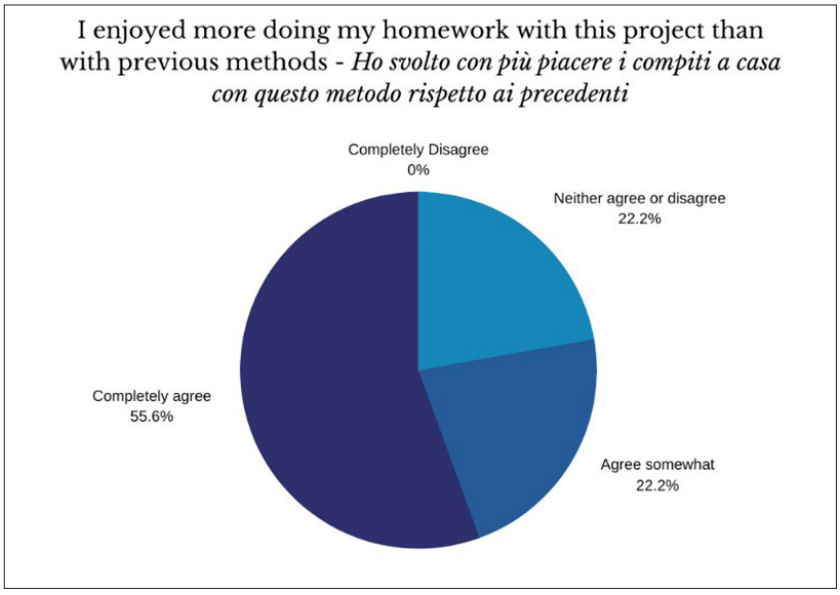


Figure 3. Students' evaluations on Gameful English/ standard school course homework. Survey.

The five homework assignments offered during the course mirrored activities covered in class sessions. Participation in these assignments was not mandatory but could significantly contribute to the student's position on the leaderboard. Considering the extracurricular nature of *Gameful English* and the timing at the end of the first school term, the response to these activities was satisfactory, with an average of 3.2 out of 5 assignments completed per student. Furthermore, students received no external rewards (e.g., school grades) for completing homework. Interview responses revealed that students perceived the tasks as enjoyable rather than obligatory ("What do you think about the proposed tasks?" – Interviews).

Students were also presented with an optional "big theme" assignment at the end of the course, offering an opportunity to earn additional points. This assignment involved selecting one of four options: a gameplay diary (completed by two students), a vocabulary journal, a multiplayer cooperative play activity, or a video game review (completed by three students). Participation in this assignment was low (19.2%). Similarly, only 15.4% of students opted to complete a comprehensive Game journal that tracked their progress throughout the course.

No instances of students complaining about scores or arguing about assessments were reported during the intervention. Focus group discussions revealed that students never felt stressed or demotivated about completing assignments, as the gamified system allowed them to recover from setbacks through alternative efforts and continued participation. In a gamified environment, commitment and dedication hold greater value than traditional courses, as they are visibly rewarded through the PBL system. For example, active participation and positive behaviour contribute to a student's score.

The visual representation of incremental learning was facilitated by the PBL system. Over half of the students (70.4%) expressed enjoyment with this aspect, while a quarter (25.9%) remained neutral, and only one student expressed mild disagreement (Figure 4).

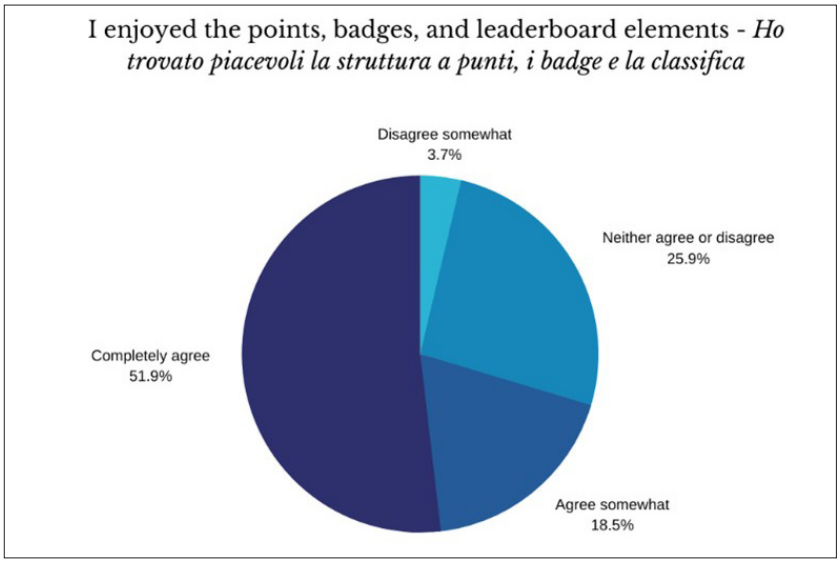


Figure 4. Students' reactions towards PBL. Survey.

Within the PBL design, the leaderboard could be perceived as the most anxiety-provoking element. However, the results showed that only two students (3.7%) reported feeling entirely or partially pressured by the leaderboard. For the majority of students (81.5%), the leaderboard did not cause stress or disappointment during the implementation (Figure 5).

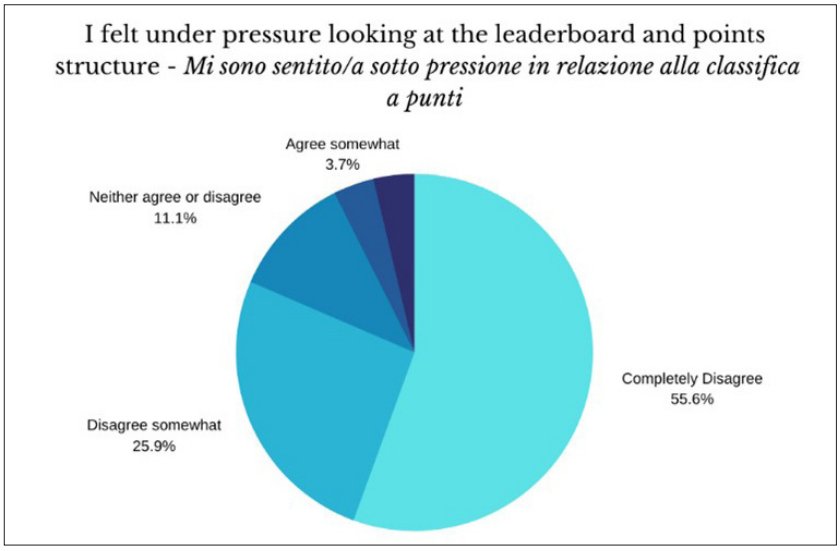


Figure 5. Students' perceptions of the leaderboard. Survey.

Student perceptions of the PBL system were generally positive. They valued the visual representation of progress as a form of immediate learning feedback. The system offered an optional challenge for those who wanted to improve their scores, introduced an element of fun absent from traditional school methods, and fostered intrinsic motivation for learning ("What are the positive or negative elements using PBL?" - Interviews).

No students expressed strong disapproval of the PBL system, and none reported anxiety related to it. The system allowed students to progress at their own pace while also motivating some to achieve higher scores. While the potential for competition was present, focus group discussions revealed that it did not lead to conflict (only 15.4% of students did express concerns about the leaderboard's potential to cause anxiety due to public display of progress).

Points were also well-received, with nearly all students (92.3%) finding them a clear indicator of progress and less stressful than traditional school marks. Students appreciated the opportunity to improve their scores incrementally by completing tasks and focusing on building knowledge rather than simply achieving an average grade ("What do you think about points?" – Interviews). They valued the transparency provided by points awarded for each task. Only a small minority (7.4%) of students perceived no difference between points and marks, indicating a lack of intrinsic motivation regardless of the assessment method.

Badges served as strong motivators for some students (23.1%), who viewed them as tangible rewards for effort and ability. However, others (approximately 77%) found badges to be less relevant as motivational tools ("Did you like the idea of having a badge?" – Interviews).

The study also aimed to investigate whether gamifying English learning could reduce stress and anxiety associated with oral and written tests, potentially improving learning outcomes by lowering the affective filter (with a better and more relaxed environment, avoiding the pressure of bad marks) and allowing students to build personalised learning paths. Results indicated that participants generally perceived improvements in speaking and listening skills (Figure 6). Only a small percentage (7.4%) reported no noticeable change, and a further minority (14.8%) remained undecided.

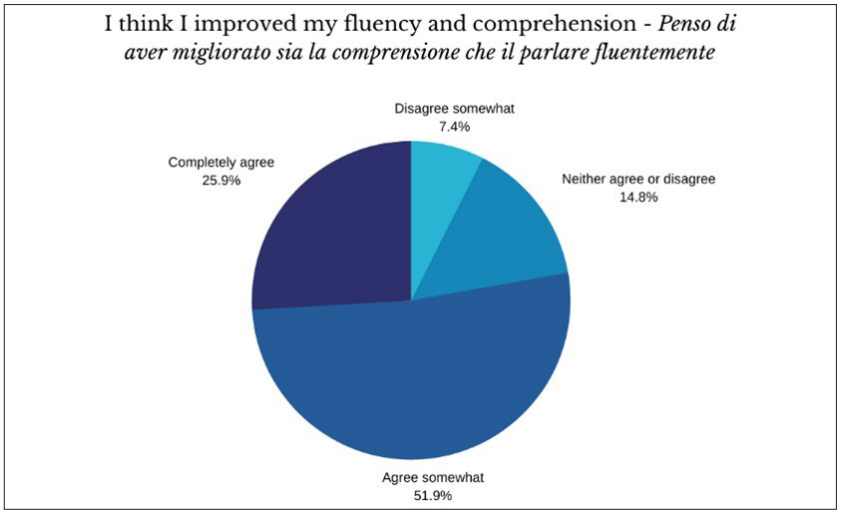


Figure 6. Students' perceptions of fluency and comprehension after the implementation. Survey.

A significant majority (69.2%) of students reported feeling more confident speaking English after the intervention. This newfound confidence stemmed from a reduced fear of making grammatical or pronunciation mistakes, as the focus shifted towards quick and spontaneous communication during discussions with teachers, classmates, and other "gamers" ("Did you feel more confident at speaking English?" – Interviews). The teachers' corrections followed the intervention, allowing students the freedom to participate without immediate correction. All students perceived an improvement in their fluency to varying degrees, with all reporting some improvement. They attributed this gain in fluency primarily to feeling more independent and comfortable speaking English in class (no longer afraid of public speaking) ("Do you think your fluency has improved after this course?", "Were you afraid of speaking publicly?" – Interviews). This aligns with the findings of Gan *et al.* (2019), who identified a correlation between limited speaking opportunities and lower proficiency in L2 communication.

Students also reported feeling more comfortable using informal English during gameplay and classroom interactions, mirroring observations made by Thorne *et al.* (2009). Additionally, some students noted improvements in pronunciation. Three activities were identified as helpful for speaking fluently: You-Tuber assignment[8], class debates, and describing pictures and *Minecraft* biomes ("What tasks helped your fluency, in your opinion?" – Interviews).

For some students (15.4%), improved fluency stemmed from a perceived increase in vocabulary. They reported learning new words and expressions that facilitated faster and more fluent communication during interactions ("How has your fluency improved?" – Interviews). Overall, the results indicated that *Gameful English* received more positive feedback from students compared to the traditional methods used in language classes. Students felt more relaxed and confident speaking English (as admitted by a large majority – 85.2%) and they had more speaking opportunities in a gameful context (70.4%) compared to traditional methods (Figures 7 and 8).

[8] It was the most difficult activity of the course: the students had to record, edit, and comment on part of their gameplay as real YouTubers.

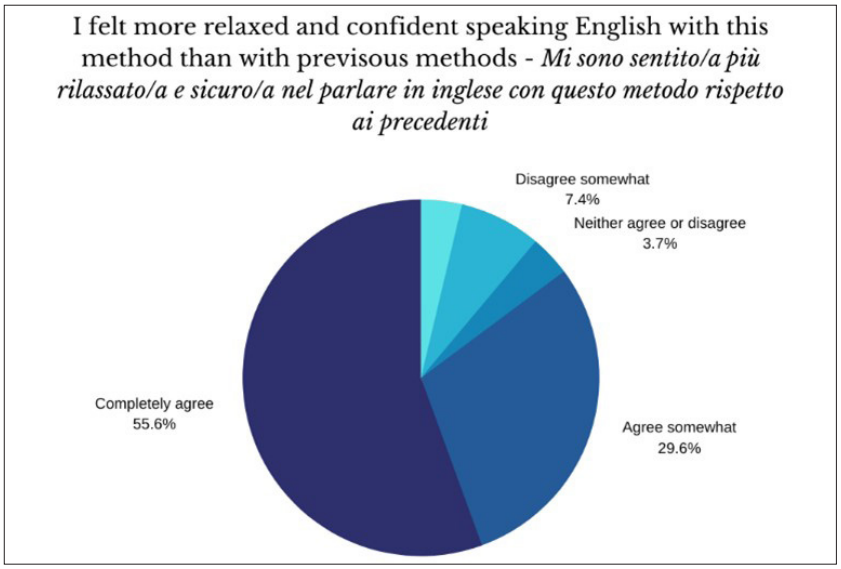


Figure 7. Students' perceptions on speaking activities comparing Gameful English and the school method. Feelings. Survey.

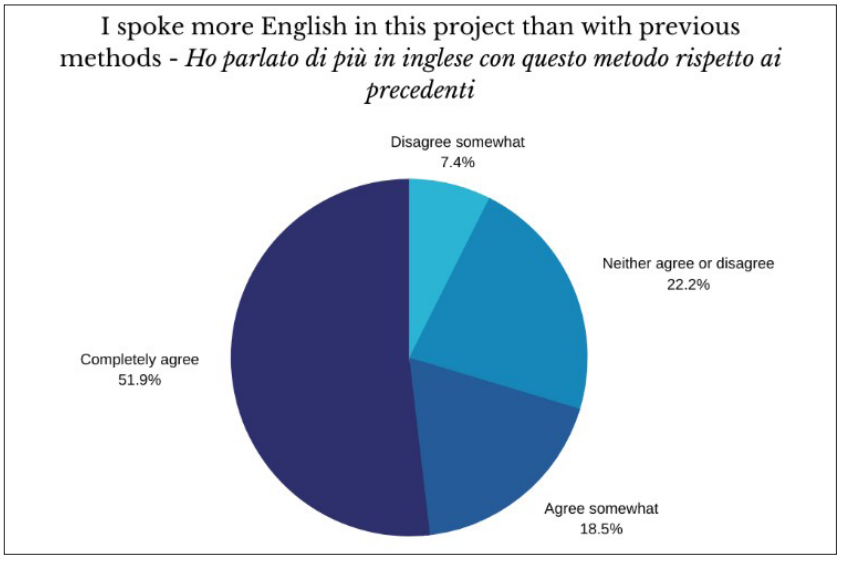


Figure 8. Students' perceptions on speaking activities comparing Gameful English and the school method. Oral interactions. Survey.

Students perceived *Gameful English* as a more challenging learning experience than a traditional language course. Nearly all students agreed to some degree, with 46.2% strongly agreeing and 42.3% somewhat agreeing. No students completely disagreed (Figure 9).

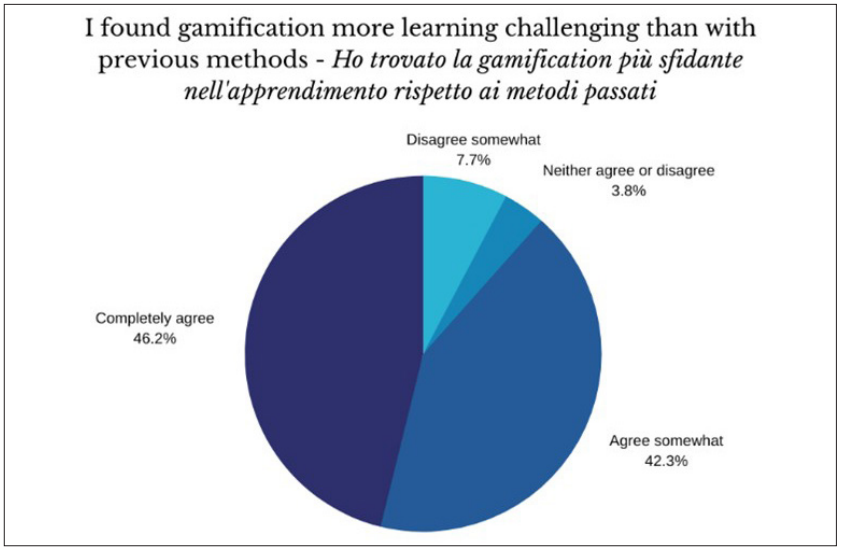


Figure 9. Students' comparison between Gameful English and the EFL school course. Survey.

To gain deeper insights into student perceptions, focus group discussions prompted participants to compare the linguistic and social approaches used in their traditional English classes and *Gameful English.* Students used adjectives to describe the strengths and weaknesses of each method. Figure 10 summarises the adjectives most frequently used by students to characterise the two approaches.

While students valued *Gameful English* for its innovative, communicative approach that prioritised real-world application, they also recognised the importance of a structured method with a grammar focus. The adjectives used to describe the traditional school approach (e.g., traditional, formal, notional, standard, rigid, old-fashioned, hierarchical, etc.) highlighted its limitations in promoting fluency and communication, rather than questioning its overall

validity. During the focus groups, many students expressed a desire for a curriculum that incorporated both methods, acknowledging the importance of accuracy alongside fluency and communication skills.

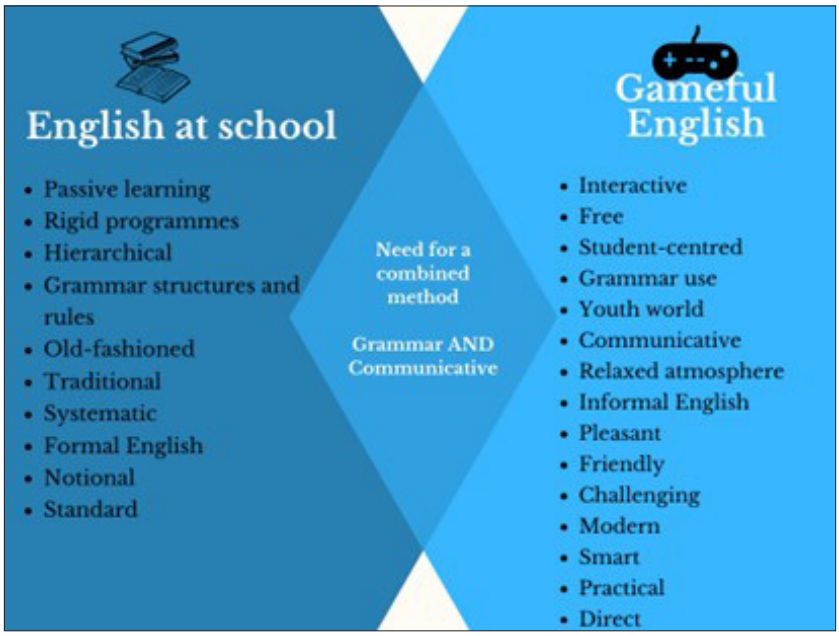


Figure 10. Students' comparison between Gameful English and the EFL school course. Survey.

Students appreciated the communicative approach of *Gameful English* because they perceived it as more practical for real-world language use. They emphasised the value of learning language for everyday situations rather than solely focusing on grammar drills. *Gameful English*'s gamified elements fostered a more enjoyable learning experience, and students perceived it as a more cost-effective approach than traditional methods. Focus group discussions revealed student dissatisfaction with the perceived lack of dialogue, challenge, and freedom in the traditional school environment, with some (30.8%) describing it as "passive learning".

To gauge the effectiveness of *Gameful English*, students were asked if they would recommend it to others. The vast majority (70.4%) expressed

a positive view of its potential as a supplementary learning method, and 25.9% explicitly endorsed its effectiveness. Only one student expressed partial disagreement (Figure 11).

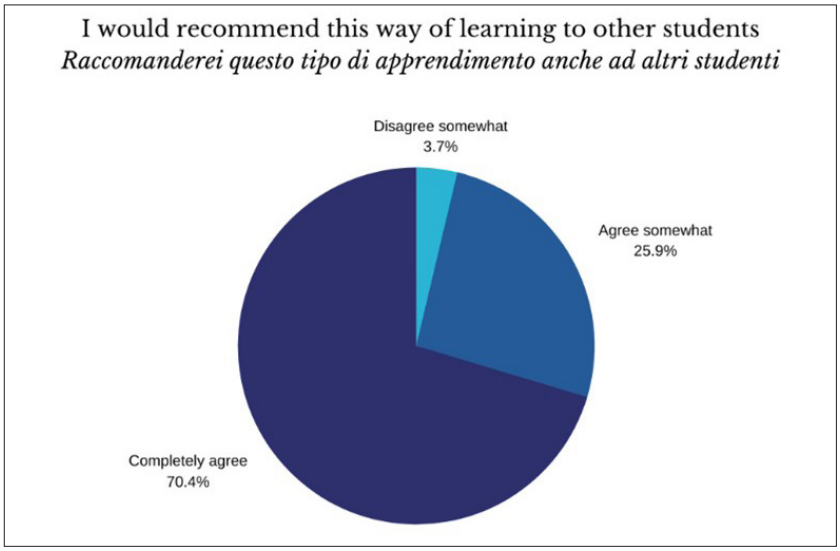


Figure 11. Students' opinions on the validity of Gameful English. Survey.

Student recommendations for who might benefit from an English language gamified course were varied and interesting ("Who would you recommend this course to?" – Interviews). Some students suggested it might be suitable for those unfamiliar with video games (7.7%) or struggling with English (7.7%). Others felt it could appeal to students seeking non-traditional learning methods (19.2%) or teenagers due to their typical learning styles and interests (7.7%). Gamers were also mentioned as a potential target group due to their existing motivation for playing and interacting with others (23.1%). Additionally, students highlighted the course's potential for intrinsically motivated learners (11.5%) and those experiencing insecurity or shyness (11.5%). The latter group might benefit from the confidence-building aspects of continuous feedback and interaction within a supportive group setting. These varied suggestions underscore the multifaceted nature of motivation: gamification may not be a universally

effective solution. While some students respond well to the challenge of increasing their scores, others find intrinsic enjoyment or personal improvement to be stronger motivators, independent of leaderboards.

Student perceptions in the focus group comments also suggested that gamification, as a potentially disruptive educational innovation, might face challenges with teacher adoption, and it highlights the need for appropriate teacher training on gamification principles and their potential benefits in the classroom. Such training could help to alleviate teacher concerns and promote wider acceptance.

The *Gameful English* implementation demonstrates that teachers can successfully integrate gamification principles into their courses, even without extensive digital game expertise. Effective course design involves tailoring content and format to the target audience, not necessarily programming video games. The core lies in utilising game principles that foster participation, interest, and enjoyment to gain a more rewarding learning experience for teachers and students.

4. Conclusions

The case study revealed that students valued the constructive assessment approach within the gamified course. The focus on error correction within a game environment allowed for increased exposure to speaking activities and fostered a less anxiety-provoking assessment experience.

Data from the study confirmed the perceived validity of gamification for measuring learning and fostering student agency. Students particularly appreciated the transparency, fairness, and fun aspect of the points system: they promoted a sense of continuous progress and self-awareness. However, the leaderboard element highlighted potential limitations. While not a source of anxiety during implementation, some students expressed concerns about its impact on students with different personalities and how they handle failure.

Student enthusiasm for the strategic element, which could potentially improve grades, was evident. However, some concerns arose regarding the feasibility of gamification due to a perceived bias towards game-like elements.

The serene classroom environment and the competence-based, well-structured activities fostered a focus on fluency over grammatical perfection, leading to a perceived improvement in fluency across all participants.

It is important to note that *Gameful English* was designed as an extracurricular course, separate from regular assessments. This characteristic may limit its effectiveness in reducing anxiety, as students did not perceive it as part of their formal grades. Future studies could investigate whether gamification integrated into the existing assessment system, with points translated into actual grades, can achieve similar positive results regarding stress and anxiety.

Acknowledgements

This case study would have never been possible without the support of Mrs Maria Rosa Valente, head teacher of the "Liceo Scientifico E. Fermi" in Gaeta (LT) in 2021, who allowed the research to be carried out rigorously and professionally in her institute, against all bias towards the gaming world.

References

Adelson, Jill L. 2007. A "Perfect" Case Study: Perfectionism in Academically Talented Fourth Graders. *Gifted Child Today*, 30/4, 14-20. DOI: 10.4219/gct-2007-490

Ajlen, Ronit / Plummer, Benjamin / Straub, Evan / Zhu, Erping 2020. Motivating Students to Learn: Transforming Courses Using a Gameful Approach. *CRLT Occasional Paper* 40. Available online at <https://tinyurl.com/42rjc9jm> (Last accessed: February 8, 2024).

Alexander, James A. / Cruz, Laura E. / Torrence, Michael L. 2019. Gold Star Enhancing Student Engagement Through Gameful Teaching and Learning. *IDEA* 75. Available online at <https://tinyurl.com/ymfpbcu8> (Last accessed: February 8, 2024).

Anisa, Khairani D. / Marmanto, Sri / Supriyadi, Slamet 2020. The Effect of Gamification on Students' Motivation in Learning English. *Leksika: Jurnal Bahasa, Sastra dan Pengajarannya* 14/1, 22–28. Available online at <https://tinyurl.com/2y5zw7rd> (Last accessed: February 8, 2024).

Armstrong, Michael B. / Landers, Richard N. 2017. An Evaluation of Gamified Training: Using Narrative to Improve Reactions and Learning. *Simulation & Gaming* 48/4, 513–538. DOI: 10.1177/1046878117703749

Barajas, Mario / Frossard, Frédérique / Trifonova, Anna 2018. Strategies for Digital Creative Pedagogies in Today's Education. *Active Learning-Beyond the Future* 2–14. DOI: 10.5772/intechopen.80695

Berliner, David 2011. Rational Responses to High Stakes Testing: The Case of Curriculum Narrowing and the Harm that Follows. *Cambridge Journal of Education* 41/3, 287–302. DOI: /10.1080/0305764X.2011.607151

Caponetto, Ilaria / Earp, Jeffrey / Ott, Michaela 2014. Gamification and Education: A Literature Review. In Busch, Carsten (ed), *European Conference on Games Based Learning* vol. 1, 50–57. Academic Conferences International Limited.

Catalano, Allison S. / Redford, Kent / Margoluis, Richard / Knight, Andrew T. 2018. Black Swans, Cognition, and the Power of Learning from Failure. *Conservation Biology* 32/3, 584–596. DOI: 10.1111/cobi.13045

Cheong, Christopher / Filippou, Justin / Cheong, France 2014. Towards the Gamification of Learning: Investigating Student Perceptions of Game Elements. *Journal of Information Systems Education* 25/3, 233–244. Available online at <https://jise.org/volume25/n3/JISEv25n3p233.pdf> (Last accessed: February 8, 2024).

Cornillie, Frederik / Thorne, Steven L. / Desmet, Piet 2012. ReCALL Special Issue: Digital Games for Language Learning: Challenges and Opportunities. Editorial: Digital Games for Language Learning: from Hype to Insight? *ReCALL* 24/3, 243–256. DOI: 10.1017/s0958344012000134

D'Adamo, Francesca 2023. *Playing Vernacular Video Games to Enhance English Learning in an Extramural Educational Context: Gameful English - A Case Study.* University of Barcelona, Doctoral dissertation. Available online at <http://hdl.handle.net/2445/202700> (Last accessed: February 8, 2024).

D'Agostino, Antonella / Schirripa Spagnolo, Francesco / Salvati, Nicola 2022. Studying the Relationship Between Anxiety and School Achievement: Evidence from PISA Data. *Statistical Methods & Applications* 31/1, 1–20. DOI: 10.1007/s10260-021-00563-9

Dale, Steve 2014. Gamification: Making Work Fun, or Making Fun of Work?. *Business Information Review* 31/2, 82–90. DOI: 10.1177/0266382114538350

Deterding, Sebastian / Dixon, Dan / Khaled, Rilla / Nacke, Lennart 2011, September. From Game Design Elements to Gamefulness: Defining "Gamification". In Lugmayr, Artur / Franssila, Heljä / Safran, Christian / Hammouda, Imed (eds), *Proceedings of the 15th International Academic Mindtrek Conference: Envisioning Future Media Environments*, 9–15. Association for Computing Machinery. DOI: 10.1145/2181037.2181040

Dichev, Christo / Dicheva, Darina 2017. Gamifying Education: What is Known, What is Believed and What Remains Uncertain: A Critical Review. *International Journal of Educational Technology in Higher* 14/9. DOI: 10.1186/s41239-017-0042-5

Dicheva, Darina / Dichev, Christo / Agre, Gennady / Angelova, Galia 2015. Gamification in Education: A Systematic Mapping Study. *Journal of Educational Technology & Society* 18/3, 75–88. Available online at <https://www.jstor.org/stable/jeductechsoci.18.3.75> (Last accessed: February 8, 2024).

Dörnyei, Zoltàn 2001. *Motivational Strategies in the Language Classroom* (Vol. 10). Cambridge: Cambridge University Press. DOI: 10.1017/cbo9780511667343>

Dweck, Carol S. 2008. Can Personality Be Changed? The Role of Beliefs in Personality and Change. *Current Directions in Psychological Science* 17/6, 391–394. DOI: 10.1111/j.1467-8721.2008.00612.x

EF Italia n.d. EF English Proficiency Index. Available online at https://www.ef-italia.it/epi/ (Last accessed: November 14, 2024).

Fishman, Barry / Deterding, Sebastian 2013. Beyond Badges and Points: Gameful Assessment Systems for Engagement in Formal Education. In Williams, Caroline C. /, Ochsner, Amanda / Dietmeier, Jeremy / Steinkuehler, Constance (eds), *Proceedings of the Games, Learning, and Society Conference 9.0*, 365–370. Carnegie Mellon University. Available online at <https://tinyurl.com/2acnk4vt> (Last accessed: February 8, 2024).

Flores, Jorge F. F. 2015. Using Gamification to Enhance Second Language Learning. *Digital Education Review* 27, 32–54. <https://files.eric.ed.gov/fulltext/EJ1065005.pdf> (Last accessed: February 8, 2024).

Gan, Zhengdong / He, Jinbo / Liu, Fulan 2019. Understanding Classroom Assessment Practices and Learning Motivation in Secondary EFL

Students. *Journal of Asia TEFL* 16/3, 768–800. DOI: 10.18823/asiatefl.2019.16.3.2.783

Hamari, Juho / Koivisto, Jonna / Sarsa, Harri 2014. Does Gamification Work? A Literature Review of Empirical Studies on Gamification. In *2014 47th Hawaii International Conference on System Sciences* (HICSS), 3025–3034. IEEE. DOI: 10.1109/HICSS.2014.377

Hanus, Michael D. / Fox, Jesse 2015. Assessing the Effects of Gamification in the Classroom: A Longitudinal Study on Intrinsic Motivation, Social Comparison, Satisfaction, Effort, and Academic Performance. *Computers & Education* 80, 152–161. DOI: 10.1016/j.compedu.2014.08.019

Hochanadel, Aaron / Finamore, Dora 2015. Fixed and Growth Mindset in Education and how Grit Helps Students Persist in the Face of Adversity. *Journal of International Education Research (JIER)* 11/1, 47–50. Available online at <https://doi.org/bxrz> (Last accessed: November 15, 2024).

Huang, Biyun / Hew, Khe F. 2015. Do Points, Badges and Leaderboard Increase Learning and Activity: A Quasi-Experiment on the Effects of Gamification. In Hiroaki Ogata, et al. (eds), *Proceedings of the 23rd International Conference on Computers in Education*, 275–280. Asia-Pacific Society for Computers in Education. Available online at <https://tinyurl.com/5c9a2axs> (Last accessed: February 8, 2024).

Kapur, Manu / Bielaczyc, Katerine 2012. Designing for Productive Failure. *Journal of the Learning Sciences* 21/1, 45–83. DOI: 10.1080/10508406.2011.591717

Komarraju, Meera / Nadler, Dustin 2013. Self-Efficacy and Academic Achievement: Why Do Implicit Beliefs, Goals, and Effort Regulation Matter? *Learning and Individual Differences* 25, 67–72. DOI: 10.1016/j.lindif.2013.01.005

Kulik, Chen-Lin C. / Kulik, James A. / Bangert-Drowns, Robert L. 1990. Effectiveness of Mastery Learning Programs: A Meta-Analysis. *Review of Educational Research* 60/2, 265–299. DOI: 10.3102/00346543060002265

Lee, Joey. J. / Hammer, Jessica 2011. Gamification in Education: What, how, why Bother. *Academic Exchange Quarterly* 15/2, 146–151. Available online at <https://tinyurl.com/bddfrhcc> (Last accessed: February 8, 2024).

Lister, Meaghan C. 2015. Gamification: The Effect on Student Motivation and Performance at the Post-Secondary Level. *Issues and Trends in Educational Technology* 3/2, 1–22. DOI: 10.2458/azu_itet_v3i2_lister

Lombardi, Ivan 2015. Fukudai Hero: A Video Game-Like English Class in a Japanese National University. *EL.LE: Educazione Linguistica* 4/3, 483–499. DOI: 10.14277/2280-6792/ELLE-4-3-15-7

McGonigal, Jane 2011. *Reality Is Broken: Why Games Make us Better and how They Can Change the World*. London: Penguin.

Mekler, Elisa D. / Brühlmann, Florian / Opwis, Klaus / Tuch, Alexandre N. 2013. Do Points, Levels and Leaderboards Harm Intrinsic Motivation?: An Empirical Analysis of Common Gamification Elements. In Nacke, Lennart E. / Harrigan, Kevin / Randall, Neil (eds), *Proceedings of the First International Conference on Gameful Design, Research, and Applications*, 66–73. Association for Computing Machinery. DOI: 10.1145/2583008.2583017

Melchiori, Francesco 2018. Scuola e Benessere degli Studenti: L'influenza dell'ansia sulle Skills Emotive e Sociali. *Formazione & Insegnamento* 16/1, 315–332.

Mora, Alberto / Riera, Daniel / Gonzalez, Carina / Arnedo-Moreno, Joan 2015. A Literature Review of Gamification Design Frameworks. *7th International Conference on Games and Virtual Worlds for Serious Applications (VS-Games)*, 1–8. IEEE. DOI: 10.1109/vs-games.2015.7295760

Nicholson, Scott 2015. A Recipe for Meaningful Gamification. In Reiners, Torsten / Wood, Lincoln C. (eds), *Gamification in Education and Business*, 1–20. Cham: Springer. DOI: 10.1007/978-3-319-10208-5_1

OECD 2017, PISA 2015 Results (Volume III): Students' Well-Being. Paris: OECD Publishing. DOI: 10.1787/9789264273856-en

Pandina Scot, Tammy / Callahan, Carolyn. M. / Urquhart, Jill. 2008. Paint-By-Number Teachers and Cookie-Cutter Students: The Unintended Effects of High-Stakes Testing on the Education of Gifted Students. *Roeper Review* 31/1, 40–52. DOI: 10.1080/02783190802527364

Reinders Hayo (ed) 2012. *Digital Games in Language Learning and Teaching*. London: Palgrave Macmillan.

Reinders Hayo / Chik, Alice 2016. Special Issue on Digital Games in Language Education: Methodological Considerations. *International*

Journal of Computer-Assisted Language Learning and Teaching 6/4, V-VI.

Reinhardt, Jonathon 2019. *Gameful Second and Foreign Language Teaching and Learning. New Language Learning and Teaching Environments*. Palgrave Macmillan. DOI: 10.1007/978-3-030-04729-0

Reinhardt, Jonathon / Sykes, Julie M. 2014. Digital Game and Play Activity in L2 Teaching and Learning. *Language Learning and Technology* 18/2, 2–8. Available online at <https://tinyurl.com/msb46jcy> (Last accessed: February 20, 2024).

Rivera, Errol S. / Palmer Garden, Clair L. (2021). Gamification for Student Engagement: A Framework. *Journal of Further and Higher Education* 45/7, 999–1012. DOI: 10.1080/0309877x.2021.1875201

Ryan, Richard M. / Deci, Edward L. 2009. Promoting Self-Determined School Engagement: Motivation, Learning, and Well-Being. In Wenzel, Kathryn R. / Wigfield, Allan (eds), *Handbook of Motivation at School*, 171–195. New York & Philadelphia: Routledge/Taylor & Francis Group.

Santipolo, Matteo 2016. L'Inglese nella Scuola Italiana. In Rodríguez, Carlos A. M. (ed), *Le Lingue in Italia, le Lingue in Europa: Dove Siamo, Dove Andiamo* 177–191. Edizioni Ca' Foscari. DOI: 10.14277/978-88-6969-072-3

Sicart, Miguel 2008. Defining Game Mechanics. *Game Studies* 8/2, 1–14.

Swacha, Jakub 2021. State Of Research on Gamification in Education: A Bibliometric Survey. *Education Sciences* 11/2, 69–83. DOI: 10.3390/educsci11020069

Sykes, Julie M. / Reinhardt, Jonathon 2013. *Language at Play: Digital Games in Second and Foreign Language Teaching and Learning*. London: Pearson Education.

Taylor, Amy R. / Gail Jones, M. / Broadwell, Bethany / Oppewal, Tom 2008. Creativity, Inquiry, or Accountability? Scientists' and Teachers' Perceptions of Science Education. *Science Education* 92/6, 1058–1075. DOI: 10.1002/sce.20272

Tekinbas, Katie S. / Zimmerman, Eric 2003. *Rules of Play: Game Design Fundamentals*. Cambridge, Massachusetts, United States: MIT press.

Thorne, Steven L. / Black, Rebecca W. / Sykes, Julie M. 2009. Second Language Use, Socialization, and Learning in Internet Interest Communities and Online Gaming. *The Modern Language Journal* 93/s1 802–821. DOI: 10.1111/j.1540-4781.2009.00974.x

Turan, Zeynep / Avinc, Zeynep / Kara, Kadir / Goktas, Yuksel 2016. Gamification and Education: Achievements, Cognitive Loads, and Views of Students. *International Journal of Emerging Technologies in Learning* 11/7, 64–69. DOI: 10.3991/ijet.v11i07.5455

Werbach, Kevin / Hunter, Dan 2012. *For the Win: How Game Thinking Can Revolutionize Your Business*. Wharton digital press.

Zimmerman, Barry J. 2000. Self-Efficacy: An Essential Motive to Learn. *Contemporary Educational Psychology*, 25/1, 82–91. DOI: 10.1006/ceps.1999.1016

Appendix 1. Gamified structure of *Gameful English*

Assessment gamified structure for *Gameful English*

ASSIGNMENT TYPE	*POINTS PER ATTEMPT*	*# OF ATTEMPTS*	*TOTAL POSSIBLE*
Assessment English test at the beginning of the course in order to get to know your CEFR level better.	4	1	4
Readings There are readings (or other minimal homework) before some lectures.	1-2	2	4
Survey Lectures Attending and participating in the lectures — where we will be doing a lot of stuff, not just listening passively — is important.	1-3	10	30
Discussions Your discussion sections are where you really learn while interacting with your group.	1-4	5	20
Practice Assignments The practice assignments are the backbone of the course. During weeks 2-10, you may complete five assignments. If you complete five, your lowest below-course-average score will be raised to the course average. Note that this is capped at well below the theoretical maximum	1-5	5	25
"Big Theme" Assignment The Big Theme assignment lets you develop a major project around a theme or a question you are interested in. You may do it collaboratively or you may do it on your own. I encourage you to use the practice assignments in your Big Theme Assignment.	1-7	1	7

Peer Review To encourage you to learn from your peers and to get practice in engaging others, you can earn points for peer reviewing one assignment for a fellow student.	1-3	1	3
Game Journal From the first day of this course, till the last, you will be asked to complete a grid to take notes of the time spent and your activities on Minecraft. Playing every day is not necessary.	1-3	1	3
Final Interview, Survey, and Focus Group You will take part in an interview and a focus group (in Italian) where you will give your personal opinion about the course. A written survey about the course will also complete your interview.	2	2	4

How students' final points in Gameful English are converted to a number grade at the end of the course.

POINTS	*NUMBER GRADE*
95-100	10
90-94	9
80-89	8
70-79	7
60-69	6
50-59	5
40-49	4

Source: Adapted from Ajlen/Plummer/Straub/Zhu (2020)

Appendix 2. Survey

Final survey

This is your end of the course report for Mrs D'Adamo's class. You have been using Minecraft as a learning tool for the last 6 weeks. Please reflect on your learning over this time period and tell me about your experience here.

Questo è il sondaggio di fine corso della prof.ssa D'Adamo. Nel corso delle ultime 6 settimane, hai utilizzato Minecraft come strumento di apprendimento. Ripensa al corso in relazione all'apprendimento e lascia la tua valutazione.

* Indica una domanda obbligatoria

Vernacular videogames impact on learning English - Impatto dei videogiochi commerciali sull'apprendimento dell'inglese *

	Completely disagree Totalmente in disaccordo	Disagree somewhat Parzialmente in disaccordo	Neither agree or disagree - Non riesco ad esprimere una valutazione	Agree somewhat - Parzialmente d'accordo	Completely agree - Totalmente d'accordo
I think this course helped me acquire new English skills - Penso che questo corso mi abbia aiutato ad acquisire nuove competenze in inglese	○	○	○	○	○
I think I learned more English vocabulary with this method than previous methods - Penso di aver appreso più vocaboli inglesi con questo metodo che con i precedenti	○	○	○	○	○

I felt more relaxed and confident speaking English with this method than previsous methods - Mi sono sentito/a più rilassato/a e sicuro/a nel parlare in inglese con questo metodo rispetto ai precedenti	○	○	○	○	○
I spoke more English in this project than previous methods - Ho parlato di più in inglese con questo metodo rispetto ai precedenti	○	○	○	○	○
I think I improved my fluency and comprehension - Penso di aver migliorato sia la comprensione che il parlare fluentemente	○	○	○	○	○
I could learn more English grammar with previous methods - Sono riuscito/a ad apprendere più grammatica con i corsi tradizionali rispetto a questo	○	○	○	○	○
I enjoyed more doing my homework with this project than previous methods - Ho svolto con più piacere i compiti a casa con questo metodo rispetto ai precedenti	○	○	○	○	○

I would recommend this way of learning to other students Raccomanderei questo tipo di apprendimento anche ad altri studenti	○	○	○	○	○

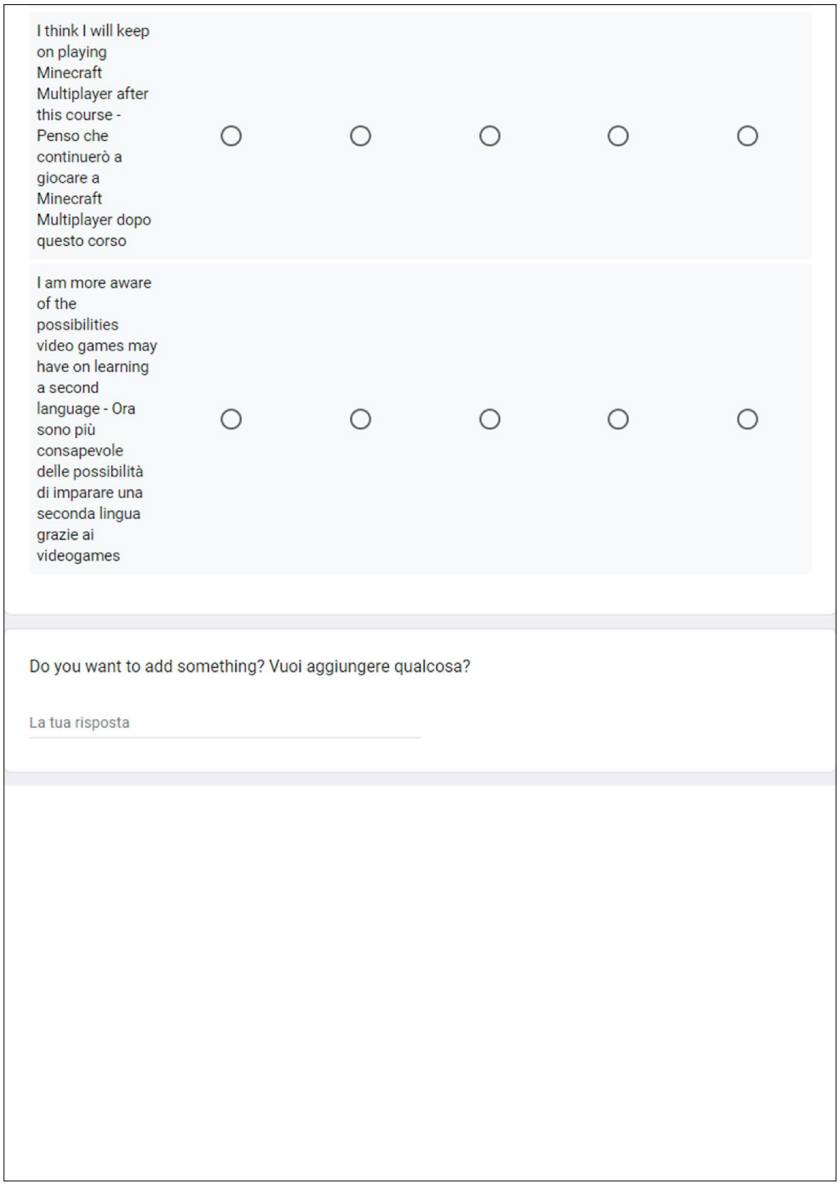
Gamification in educational context - La gamification nel contesto scolastico *

	Completely disagree Totalmente in disaccordo	Disagree somewhat Parzialmente in disaccordo	Neither agree or disagree - Non riesco ad esprimere una valutazione	Agree somewhat - Parzialmente d'accordo	Completely agree - Totalmente d'accordo
I found gamification more learning challenging than previous methods - Ho trovato la gamification più sfidante nell'apprendimento rispetto ai metodi passati	○	○	○	○	○
I enjoyed the points, badges, and leaderboard elements - Ho trovato piacevoli la struttura a punti, i badge e la classifica	○	○	○	○	○
I think a gamified course is more fair and egalitarian than a standard course. - Penso che un corso gamificato sia più equo e chiaro rispetto ai normali corsi scolastici	○	○	○	○	○

I felt under pressure looking at the leaderboard and points structure - Mi sono sentito/a sotto pressione in relazione alla classifica a punti	○	○	○	○	○
I would recommend this type of structure and assessment to other courses Raccomanderei questo tipo di valutazione e strutturazione anche ad altri corsi	○	○	○	○	○

Gameplay perception - Percezione del gameplay *

	Completely disagree Totalmente in disaccordo	Disagree somewhat Parzialmente in disaccordo	Neither agree or disagree - Non riesco ad esprimere una valutazione	Agree somewhat - Parzialmente d'accordo	Completely agree - Totalmente d'accordo
When I played Minecraft I found it less attractive because it was "for school" Quando giocavo a Minecraft lo trovavo meno divertente perchè sapevo che era per scuola	○	○	○	○	○
It was fun to play the game - é stato divertente giocare	○	○	○	○	○
The tasks were too difficult - Le attività erano troppo difficili	○	○	○	○	○


I think I will keep on playing Minecraft Multiplayer after this course - Penso che continuerò a giocare a Minecraft Multiplayer dopo questo corso
I am more aware of the possibilities video games may have on learning a second language - Ora sono più consapevole delle possibilità di imparare una seconda lingua grazie ai videogames
Do you want to add something? Vuoi aggiungere qualcosa?
La tua risposta

Appendix 3. Abbreviations

CALL = Computer-Assisted Language Learning
CEFR = Common European Framework of Reference for Languages
DDA = Dynamic Difficulty Adjustment
EF EPI = Education First English Proficiency Index
EF SET = Education First Standard English Test
EFL = English as a Foreign Language
L2 = Second Language
OECD = Organization for Economic Co-operation and Development
OED = Oxford English Dictionary
PBL = Points, Badges, Leaderboard
SDT = Self-Determination Theory

IL TORCOLIERE • Officine Grafico-Editoriali d'Ateneo
Università di Napoli L'Orientale
stampato nel mese di gennaio 2025