

ENHANCING L2 ACQUISITION THROUGH GAMES

BEATRIZ CHAVES-YUSTE

Universidad Complutense de Madrid

1. INTRODUCTION

In the current society in which students live surrounded by stimuli and different and new realities, gamification has become a growing educational trend (Briffa et al., 2020). Gamification enhances students' participation, engagement, motivation, and collaboration within an enjoyable learning process (Carrión et al., 2023). Human beings are naturally predisposed toward games and competition. Games have always been part of the social and cultural lives of every civilization. It fosters the development of affective, cognitive, and social abilities pleasantly and joyfully (Lähdesmäki et al., 2023). Moreover, as Larson (2020) pointed out, socio-ethical, cognitive, affective, and emotional dimensions (among others) can be developed through games. It wakens curiosity and strengthens memory, which may facilitate foreign language learning as far as it eases the acquisition of vocabulary and morphosyntactic structures (Mora, 2013). In this respect, Foncubierta (2014) pinpointed that in the foreign language classroom gamification helps to improve students' attention, modulate their moods, fight against their tiredness, and provide them with rest when necessary.

Gamification has been widely exploited in the business world for decades since it has the potential to increase the capability of increasing the self-efficacy of the workforce (Ortiz-Rojas et al., 2017). Its great success has led to the extrapolation of its use in other contexts, such as education (Chaves-Yuste, 2019). Gamification can be defined as “the use of game design elements in non-game contexts” (Deterding et al., 2011, p. 10) or “the use of mechanisms, dynamics, and frameworks to promote desired behaviors” (Lee & Hammer, 2011, p. 1). More recently, gamification has

been regarded as the use of a game method in a context where gameful components are not usually found, to increase, in the case of education, their participation, commitment, and concentration (Dahalan et al., 2023).

Since gamification is an active learning methodology, interaction among the participants and their decision-making enables students to be the real protagonists of their learning experiences. Thus, autonomous, responsible, and cooperative work is fostered- while the teacher frequently provides students with feedback to make them aware of the progress achieved.

Werbach and Hunter (2012) pointed out a series of game-derived elements: dynamics, mechanics, and components. Dynamics are elements present in almost all games and represent the highest level of gamification. Among the most popular dynamics, we find restrictions for players in the performance of specific activities, emotions, such as curiosity, or disappointment in achieving or not achieving some goals, the narrative, which provides the structural framework for the development of different tasks, and the progression of the participants, which show the interaction of the players, their cohesion as a group and the competitiveness among them. By mechanics, we mean more specific elements that involve detailed actions and direct players to actions to fulfill the components, those necessary elements for the functioning of the game mechanics. They are at the lowest level of abstraction, as they are very concrete actions, whose components can be achievements, avatars, badges, heroic fights, gifts, leaderboards, levels, points, or virtual goods, among others.

Besides, Bartle (1996) established a taxonomy of the types of players that can be found in the potential users of the gamified experience: a) Achievers: those players who desire recognition for their work and whose objective is to win the game; b) Socializers: players who enjoy the time shared with their peers and being part of a community; c) Explorers: those who like to acquire new knowledge, interact with the world of the game, and learn through the activity; and d) Assassins: those who only play to demonstrate their superiority over other teammates. When designing a gamified experience, teachers need to consider which kind of players students are with the aim of fulfilling their needs and interests and addressing their different personality types and what works for them within the gamified project.

Efficient gamified proposals have an impact on students' behavior since they are based on three underlying theories: Pink's intrinsic motivation theory (2010), goal setting theory (Latham and Locke, 1990, 1991), and Csikszentmihályi's (1990) flow theory. While participating in the gamified experience, the learning process feels like a flow. Within this flow, the student feels safe and is completely engaged in the proposed tasks, which demand all their concentration and attention for their successful attainment (Csikszentmihályi & Nakamura, 2002). In the correct flow, the student feels harmony between the skill level and the challenge, so that it does not cause boredom or anxiety because tasks are not too easy or too difficult to be fulfilled.

Gamification allows innovation in the classroom. Gamified tasks are more engaging, and creative, fostering problem-solving and learning from mistakes.

2. LITERATURE REVIEW

The twenty-first century and the revolution of technology development in education (Gopo, 2022) have brought a variety of learning contexts for language learners, such as social media contexts, gaming platforms, and collaborative projects (Kessler, 2018). Many schools support high levels of technology and provide gadgets like tablets or laptops, have improved internet access, and have developed computer literacy programs (Johnson et al., 2016). With the worldwide emergence of COVID-19, educational institutions underwent a large number of online and avant-garde learning experiences. Within this panorama, the gaming world has increasingly gained relevance in education to provide an enjoyable and attractive learning environment. Thus, students can feel enjoyment and engagement, receive immediate feedback, overcome challenges, and feel accomplishment (Bicen & Kocakoyun, 2018).

Considering the importance of game elements within the classroom, gamification has been the study focus of several international works: Guaqueta and Castro-Garcés (2018) conducted a study with tenth graders in Colombia to test if the language learning gamified apps Duolingo and Kahoot promoted life-long meaning learning of vocabulary,

demonstrating they improved their language skills, gained vocabulary acquisition strategies and enjoyed English learning. Hwang et al. (2017) showed how a gamified digital experience improved Chinese ninth graders' listening skills while diminishing their anxiety levels. By integrating problem-based English listening gamified content, students overcame their fear of listening to English and improved their learning performance. Ahmed (2016) argued that some gamified applications, such as Duolingo, could ease the learning of two foreign languages at the same time regarding pronunciation, vocabulary, and grammar acquisition. Moreover, Dehghanzadeh et al. (2023) studied fifty-four empirical studies and showed the potential of gamification in different educational settings. Barcomb and Cardoso (2020) argued that gamification enhanced Japanese students' communicative competence by improving their pronunciation and learning in an anxiety-reduced environment. This distended atmosphere promoted a suitable learning environment where students could learn more efficiently, as Newgarden and Zheng (2016) also argued. In this sense, Mogrovejo et al. (2019) promoted the utilization of television contests-based games to learn English vocabulary, and Sundqvist (2019) employed English commercial games to create this stress-free learning space. Krashen's affective filter hypothesis (1982) already stated how affective factors relate to the second language acquisition process. He argued that students with high motivation, self-confidence, and a positive self-image generally perform better in foreign language acquisition. Similarly, Sun and Hsieh (2018) and Baur et al. (2015) showed that gamification was a suitable methodology to improve their attitude and motivation towards their language learning, which automatically influences the mastery of the different linguistic skills, as it is reflected in Lam et al.'s (2018) work, who demonstrated that by improving students' motivation using a gamified framework, students upgraded their argumentative writing skills.

Furthermore, Hernández-Prados et al. (2021) pinpointed that utilizing game dynamics influenced English for General Purposes (henceforth, EGP) learning positively. As Cloud et al. (2000) highlighted, it is necessary to apply high-standard student-centered programs. They should provide convenient and suitable instruction considering students'

linguistic, academic, and cognitive levels, integrating stimulating instruction. Cordero and Núñez (2018) added that gamification not only improved learning transfer but also increased the learners' retention, which eased the development of their competencies. It promoted their learning autonomy and the necessary strategies to work with their peers cooperatively (Marín, 2018).

Hence, gamification has proven efficient in the EGP secondary education stage. Diverse worldwide educational realities, such as Switzerland, China, the Netherlands, Japan, Peru, Colombia, Thailand, Saudi Arabia, and so forth, have shared the effectiveness of this active learning methodology. Thus, this research conducted in Spain expects similar results.

3. OBJECTIVE

Bearing in mind that it is challenging to make teenagers feel motivated during their learning process, this work aims to analyze the effectiveness of a gamified proposal to revise all the contents established in the EGP fourth year of compulsory education curriculum (Organic Law 8/2013 and Royal Decrees 1105/2014 and 48/2015) while raising social awareness. The present research starts from the hypothesis that gamification of learning could be a suitable and motivating methodology for teaching EGP in Spanish secondary education, which positively influences students to improve their linguistic competence. This improvement can be measured in their academic performance. Thus, this work aims to measure the effectiveness of gamification on secondary education students' academic performance, which is operationalized through the scores obtained in different standardized tests (comprehension and expression of oral and written texts) at the B2 level according to the Common European Framework for Languages (CEFR) (2001).

Students seemed unmotivated to follow conventional classes and showed a negative attitude toward their learning, had different language proficiency levels, and inadequate learning methodologies (Krishnasamy, 2015). Thus, a new approach needed to be employed in this new scenario, and gamification provided a suitable framework for the group.

4. METHODOLOGY

The study is an exploratory comparative empirical intervention that provides quantitative data gathered for three weeks during the third term of the 2022-2023 school year (April- June). A descriptive and inferential design methodology was used. The independent variable was the methodology used: Communicative Language Teaching (hereafter, CLT) and gamification. The dependent variable was the grade obtained in the final test, which comprised all the linguistic skills and another section on the use of English. This variable was operationalized through the final test scoring (further explained in instruments).

4.1. PARTICIPANTS

The sample population of this study is made up of fifty-eight fourth compulsory secondary education students at a high school with three sections per grade in Madrid downtown (Spain). The age of the participants was between 15 and 16 years old ($M: 15,18$; $SD: 0.39$), with a higher percentage of female students (74,6%) versus male students (25.4%). Only one student was from the Dominican Republic, and all had Spanish as their first language. Their EFL level was B2, according to the Common European Framework of Reference for Languages (Council of Europe, 2001). The inclusion criteria for the sample were to be enrolled in the fourth year of compulsory secondary education classroom at the school, to attend lessons regularly, and not to have a diagnosis of specific learning difficulties, attention deficit hyperactivity disorder or other neurodevelopment disorder, or sensory and/or psychological problems.

4.2. INSTRUMENTS

Two instruments for data collection were used: first, the grades obtained in the final tests that were administered after implementing the different methodologies. They comprised a scale from 0 to 10 (0-4.99 failed, -F-, 5-5.99 points passed, -D-, 6-6.99 points, -C-, 7-8.99 points, -B- and 9-10 points, -A-). In the different proposed tasks, students needed to practice their speaking, listening, reading, and writing skills while

demonstrating a good use of the English morphosyntax and lexicon. The test consisted of five sections, described as follows:

- Reading comprehension test: Students answered twenty multiple-choice questions (with four options) that checked the understanding of a given text, and each correct answer obtained 0.1 points (a total of 2 points).
- Listening test: Students listened to two audio files on the topics worked on throughout the school year. They answered ten open-ended questions (0.2 points each, a total score of 2 points).
- Writing test: Students wrote an essay about one of the topics worked throughout the school year. The text was graded from 0 to 2 points following a written assessment rubric (see Annex 1). A maximum of 0.33 points could be assigned to each category (0.21-0.33, exemplary; 0.11-0.20, partially proficient; 0-0.10, deficient), with a maximum total score of 2 points.
- Speaking test: Students need to record a short movie in groups. They need to speak about one of the topics covered during the school year (chosen randomly). A speaking rubric (see Annex 2) was used to grade this assignment. The maximum score was 2 points.
- Use of English test: Students did a fill-in-the-gaps exercise that comprised ten spaces. They needed to be filled with prepositions, conjunctions, verbs, adjectives, or adverbs. Each correct answer received 0.05 points (a total of 0.5 points). Also, they needed to read a text with spaces and a lemma, and students made up nouns, adjectives, verbs, or adverbs through word formation. There were twenty gaps. Each correct answer received 0.05 points, with a total score of 1 point. Finally, students were asked to paraphrase five sentences. Each correct sentence was assigned 0.1 points, with a total score of 0.5 points in this exercise. The maximum score of this section was 2 points.

Secondly, the teacher's diary, in which the teacher recorded all the tasks done by students and their participation was valued to assess students' work and engagement.

4.3. PROCEDURE

The foreign languages department agreed on the proposal of creating a didactic unit for the fourth year of compulsory secondary education students to revise the contents that had been studied for the two first terms. Students could review all the grammar and lexicon contents while becoming more socially aware of the different educational systems and circumstances around the globe. After being accepted by the school principal, parent consent forms were sent to all the families whose children participated in the experimentation. They were informed about the objective of the work and that they had withdrawal possibilities at any stage. All the contents in this experimentation always respected the curriculum established by the State and the Madrid community, the Royal Decree 1105/2014 26th December 2014 (Spanish Ministry of Education), through which the minimal teachings for compulsory secondary education are established which was further developed by the Madrid Community in the Royal Decree 52/2015 21st May (BOCM 22nd May).

The classes were held in the morning from 9.10 to 1.00 pm. There were fifteen sessions (five sessions each week) of fifty minutes held in their usual classrooms or the foreign language lab. All the samples did the tests on the same day and time under the same circumstances in their classrooms with optimal lighting, ventilation, and sound conditions. The data was collected following the ethical guidelines of the Helsinki Declaration (World Medical Association, 2013), which guarantees data confidentiality.

The assignments were thought to be done during the lessons. However, those students who desired to continue working at home could freely do it and send their work via *Teams* to the teacher. Some tasks needed to be fulfilled individually, but others were cooperative tasks that demanded teamwork and needed to be done at school. Since the experimentation took place during the last term, the teacher already knew the students, so she created heterogeneous cooperative groups considering

the different types of players (according to Bartle, 1996). The teacher provided the students with the necessary feedback and support.

4.4. DATA ANALYSIS

The IBM Social Science Statistical Package SPSS 28 for Windows (IBM, 2021) was used to carry out the analyses. First, descriptive statistics were used to find out the means and standard deviation of the studied variables. Provided the sample size, the Shapiro-Wilk test was used for normality, obtaining 0,018 for CLT and 0,000 for gamification grades, which required using non-parametric coefficients. The non-parametric Wilcoxon test for paired samples was applied, with a significance level of $\alpha = 0.05$, to analyze the effect of gamification on the participants' academic results.

5. RESULTS

All the participants began and completed the study through the posttests and completed all the proposed tasks. To check the results obtained in the posttests when the two learning methodologies were used, the descriptive analysis, with the means and the standard deviation for the variable, is shown in Table 1. The marking criteria for the test were from 0 to 10 points. It comprised five parts: reading comprehension, written expression, listening comprehension, speaking skills, and use of English. Each of them had a maximum score of 2 points. The total amount of the points could be from 0-4.99 points, failed (F), 5-5.99 points, passed (D), 6-6.99 points, good (C), 7-8.99 points quite good (B), and 9-10 points, excellent (A). The grades were obtained after using CLT and after implementing the gamification proposal. The descriptive statistics of the CLT grades showed a mean of 7.01 (B), and the mean obtained after the gamified experience was 7.92 (B+), almost a point higher than when using CLT:

TABLE 1. Mean (M) and standard deviation (SD) of categorised variable (final grade obtained using CLT and gamification)

	M	SD
CLT	7.01	0,426
Gamification	7,92	0,471

Source: Own creation

When comparing these grades, we employed the Wilcoxon Signed-Rank test for related samples. The key assumption for the tests, the distributional assumption, was not violated, as it was assessed by a histogram with a superimposed normal curve on the distribution of the scores. As can be observed in Table 2, there was a standard deviation of 0.32 and a significant difference of $p = 0.009$, which demonstrates gamification positively influenced students' academic performance:

TABLE 2. T-student for paired sample analysis of categorised variables (final grades of CLT and gamification).

	Means	SD	t	Sig (bilateral)
CLT & Gamification	0,90	0,32	2,82	0,009

Source: Own creation

These results verify the hypothesis and objective of the work: despite students being unmotivated, there was a significant difference when changing the methodology and implementing gamification. Thus, the use of this active learning methodology was demonstrated to have a positive effect on students' linguistic competence, as observed by their improvement in their academic performance.

In addition, the teacher observed and included in her teacher's diary that students were more engaged and participative during the gamified experience. They handed in more assignments and showed more enthusiasm during the lessons than when CLT was used. This increase in motivation may have had a direct connection with their practice of the English language, which has significantly improved as their academic performance records reflect.

6. DISCUSSION

This work aimed to analyze the effectiveness of gamification with a group of secondary education students who were highly unmotivated and did not feel any interest in learning the English language. To test its effectiveness, students used this active learning methodology for three weeks with different tasks, respecting the dynamics, mechanics, and components the teacher had previously established. The descriptive analysis already responded to the study objective and confirmed the hypothesis that gamification was suitable to foster students' motivation, engagement, and practice. Thus, they practiced the English language much more and improved their mastery, as is reflected in their academic records when being tested at the end of the school year.

As Pereira et al. (2018) had already pinpointed, employing gamification did not directly determine an increase in performing specific skills, but it deeply helped to increase the learner's motivation levels to acquire these skills. Thus, in this work, students felt more enthusiasm and engagement in all the proposed activities, which fostered their EGP learning and mastery. Ahmed (2021) showed that a gamification program developed secondary education students' EGP speaking skills and improved their motivation towards learning this skill. Similarly, the participants of this study improved their linguistic skills. These findings are also analogous to the ones pinpointed by Vathanalaotha (2022), who conducted research with 1022 students in Thailand who studied in eight local schools. He explained that there was a significant difference between the scores obtained once their participants had been instructed with a gamified program. They performed a higher learning development and could speak more accurately and fluently since they felt more confident by learning from the gamified trustworthy materials (Nguyen, 2022).

In the same line as Alsawaier (2018) and Papadakis et al. (2020), students demonstrated higher motivation and engagement when learning with gamification. In the teacher's diary, the teacher recorded the participatory register and the academic results of each of the tasks. Students were more active and fulfilled more exercises when participating in the gamified experience than when being instructed with CLT.

However, gamification is not a remedy in education. As Suyunov et al. (2023) argued, it may lead to distraction or social tensions when it is not used properly. Teachers are not always well equipped with appropriate technical skills (Moreno & Méndez, 2015) or may not have enough support to apply this approach (Papadakis et al., 2020). Some teachers feel apprehension about implementing educational innovations (Georgiou & Ioannou, 2019) or find it challenging to integrate new methodologies that demand the use of technology smoothly within the curriculum demands.

7. CONCLUSIONS

In light of the results obtained in this exploratory research, it would be suitable for EGP secondary education teachers to choose active methodologies, such as gamification, to improve students' learning process, academic performance, and engagement.

The findings from the analyzed case study on a gamified approach can provide valuable information that can be used in other contexts and educational stages, such as primary or tertiary education. The findings attained were substantially meaningful since gamification made them participate, connect, and practice their English while learning several sociocultural differences encountered in different spots in the world. Thus, not only their communicative competence developed but also their digital and inter-social awareness competencies.

Nevertheless, this exploratory research comprises several limitations, such as the sample size and the ad hoc tasks used for the gamified experimentation, which reflects the contextualized nature of the research. Thus, any generalization of these results to other populations should be made cautiously. It would be appropriate to enlarge the sample, extend the duration of the application of gamification throughout the school year, or transfer its use to other subjects of compulsory secondary education. It studies the effect of gamification on students' learning performance. Further research should be conducted to investigate their views regarding the potential of gamification and the teachers' willingness to pursue this new pedagogical approach. Thus, educational administrators and policymakers could promote the integration of gamification, or not,

into the EGP curriculum in secondary education. However, the findings achieved in the current research are valuable in informing teachers and policymakers about the effectiveness of the emerging gamification approach in the EGP learning process in secondary education.

This study demonstrates some pedagogical implications of gamification for EGP classes in the secondary education stage. Students need to be active learners and feel the core center of their learning process in which teachers are not the only source of knowledge but facilitators and learning supporters. Acting as facilitators, teachers monitor students' progress and focus on each student's specific needs by analyzing their performance in the language and the management of the different skills. The badge system through which students felt their production rewarded made students see their outcomes, which may influence their motivation and engagement in the forthcoming gamified tasks. Thus, gamification could play a fundamental role in EGP education in Spain, where classrooms usually comprise a high number of students. This may hamper their learning and interaction, as well as certain passivity of students who are used to being lectured and automatically adopt a passive role. To better exploit this methodology, it is necessary to be given enough teacher training so they are well prepared to use it effectively.

In summary, this research confirms gamification makes learning an efficient educational experience with positive effects regarding the revision of grammar and lexicon contents and the practice of the different linguistic skills in EGP. Moreover, it seems to offer a suitable framework to enhance social and civic awareness since students learn from various educational experiences presented and realize the differences and similarities among very diverse realities. Also, the study has proven that the participants increased their motivation and hence, commitment and involvement in the gamified sessions in which English was properly used. Gamification may be seen as an active learning methodology that promotes participation and fosters the development of students' better attitudes towards EGP lessons, the essence of edutainment (Vathalaoha, 2022).

8. ACKNOWLEDGEMENTS

I would like to thank the LALINGAP research team of the Complutense University of Madrid, the research group to which I belong, for their invaluable contribution to the development of research in language learning and teaching, the results of which are partly reproduced in this chapter.

9. REFERENCES

- Ahmed, H. B. E. (2016). Duolingo as a bilingual learning app: a case study. *Arab World English Journal (AWEJ)*, 7 (2), 225-267.
<https://dx.doi.org/10.24093/awej/vol7no2.17>
- Ahmed, S. A. (2021). A gamification program to enhance speaking skills of EFL secondary stage students and their motivating towards learning these skills. *A research. iKNiTO JS*, 116 (3), 21-43.
<https://dx.doi.org/10.21608/maed.2021.235826>
- Alsawaier, R. S. (2018). The effect of gamification on motivation and engagement. *The International Journal of Information and Learning Technology*, 35 (1), 56–79. <https://doi.org/10.1108/IJILT-02-2017-0009>.
- Barcomb, M. & Cardoso, W. (2019). Rock or Lock? Gamifying an Online Course Management System for Pronunciation Instruction: Focus on English /r/ and /l/. *CALICO Journal*, 37 (2), 127-147. <https://doi.org/10.1558/cj.36996>
- Bartle, R. A. (1996). Hearts, clubs, diamonds, spades: Players who suit MUDs. *Journal of MUD Research*, 1 (1). <http://mud.co.uk/richard/heds.htm>
- Baur, C., Rayner, M., & Tsourakis, N. (2015). What Motivates Students to Use Online Call Systems? A Case Study. *Proceedings of INTED 2015: 9th International Technology, Education and Development*.
- Bicen, H., & Kocakoyun, S. (2018). Perceptions of students for gamification approach: Kahoot as a case study. *International Journal of Emerging Technologies in Learning*, 13 (2), 72–93.
<https://doi.org/10.3991/ijet.v13i02.7467>
- Briffa, M., Jaftha, N., Loreto, G., Pinto, F. C. M., & Chircop, T. (2020). Improved students' performance within gamified learning environment: A meta-analysis study. *International Journal of Education and Research*, 8 (1), 223-244.

- Carrión, E., De-La-Peña, C., & Chaves-Yuste, B. (2023). Pre-service teachers' perception of active learning methodologies in history: Flipped classroom and gamification in an e-learning environment. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-023-11924-0>
- Chaves-Yuste, B. (2019). Revisión de experiencias de gamificación en la enseñanza de lenguas extranjeras. *ReiDoCrea*, 8, 422-430.
- Cloud, N., Genesse, F., & Hamayan, E. (2000). *Dual Language Instruction: A Handbook for Enriched Education*. Heinle & Heinle.
- Cordero, D., & Núñez, V. M. (2018). El uso de técnicas de gamificación para estimular las competencias lingüísticas de estudiantes en un curso de ILE. *Revista de Lenguas Modernas*, 28, 269-291. <https://doi.org/10.15517/rm.v0i28.34777>
- Council of Europe. (2001). *Common European framework of reference for languages: Learning, teaching, assessment*. Cambridge University Press.
- Csikszentmihalyi, M. (1990). *Flow*. Harper and Row.
- Csikszentmihalyi, M., & Nakamura, J. (2002). The concept of flow. In C. R. Snyder & S. J. López (Eds.), *Handbook of positive psychology*, (pp. 89-105). Oxford.
- Dahalan, F., Alias, N., & Shaharom, M. S. N. (2023). Gamification and game-based learning for vocational education and training: A systematic literature review. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-022-11548-w>
- Dehghanzadeh, H., Farrokhnia, M., Dehghanzadeh, H., Taghipour, K., & Norrozi, O. (2023). Using gamification to support learning in K-12 education: A systematic literature review. *British Journal of Educational Technology*, 1-37. <https://doi.org/10.1111/bjet.13335>
- Deterding, S., Dixon, D. Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: Defining 'gamification'. *Proceedings of the 15th international academic MindTrek conference: Envisioning future media environments (MindTrek '11)*. Finland. <https://doi.org/10.1145/2181037.2181040>
- Foncubierta, J. M. (2014). *Gamificación y aprendizaje de segundas lenguas*. Edinumen.
- Georgiou, Y., & Ionnou, A. (2019). Teachers' concerns about adopting technology-enhanced embodied learning and their mitigation through professional development. *Journal of Technology and Teacher Education*, 27 (3), 335-371. <https://www.learntechlib.org/primary/p/210451/>

- Gopo, C. F. (2022). The role of technology in the 21st century education of learners. *The official Research Journal of Tagum City Division*, 47-58.
- Guaqueta, C. A., & Castro-Garcés, A. Y. (2018). The use of language learning apps as a didactic tool for EFL vocabulary building. *English Language Teaching*, 11, 61–71. <https://doi.org/10.5539/elt.v11n2p61>
- Hwang, G. J., Hsu, T. c., Lai, C. L., & Hsueh, C. J. (2017). Interaction of problem-based gaming and learning anxiety in language students' English listening performance and progressive behavioral patterns. *Computers & Education*, 106, 26–42. <https://doi.org/10.1016/j.compedu.2016.11.010>
- IBM (2021). IBM SPSS Statistics for Windows, 28.0 version. IBM Corp.
- Johnson, A. M., Jacovina, M. E., Russell, D. G., & Soto, C. M. (2016). *Challenges and solutions when using technologies in the classroom*. Routledge.
- Kessler, G. (2018). Technology and the future of language teaching. *Foreign Language Annals*, 51 (1), 205–218. <https://doi.org/10.1111/flan.12318>
- Krashen, S. (1982). *Principles and Practice in Second Language Acquisition*. Pergamon Press Inc.
- Krishnasamy, J. (2015). An investigation of teachers approaches employed in teaching the English literature. *Asian Journal of Education and E-Learning*, 3 (2). <https://www.ajouronline.com/index.php/AJEEL/article/view/2519>
- Lähdesmäki, S., Maunumäki, M., & Nurmi, T. (2023). Play is the Base! ECEC Leaders' Views on the Development of Digital Pedagogy. *Early Childhood Education Journal*, 1-14. <https://doi.org/10.1007/s10643-023-01530-7>
- Lam, Y. W., Hew, K. F., & Chiu, K. F. (2018). Improving Argumentative Writing: Effects of a Blended Learning Approach and Gamification. *Language Learning and Technology*, 22 (1), 97-118. <https://dx.doi.org/10125/44583>
- Latham, G. P., & Locke, E. A. (1990). *A theory of goal setting and task performance*. Prentice Hall.
- Latham, G. P., & Locke, E. A. (1991). Self-Regulation through Goal Setting. *Organizational Behavior and Human Decision Processes*, 50, 212-247. [https://doi.org/10.1016/0749-5978\(91\)90021-K](https://doi.org/10.1016/0749-5978(91)90021-K)

- Lee, J. J., & Hammer, J. (2011). Gamification in education: What, how, why bother? *Academic Exchange Quarterly*, 15 (2), 1–5.
- Marín, V. (2018). ¿El poder de la gamificación educativa? *EDMETIC, Revista de Educación Mediática y TIC* 7(2), 1-4.
<https://doi.org/10.21071/edmetic.v7i2.11146>
- Mogrovejo, A. B., Mamami, G., & Tipo, M. L. (2019). Juego y simulación de programas concurso de televisión como técnica didáctica para mejorar el aprendizaje de vocabulario inglés en estudiantes de habla hispana. *Información Tecnológica*, 30 (1), 225-236. <https://doi.org/10.4067/s0718-07642019000100225>
- Mora, F. (2013). *Neuroeducación. Solo se puede aprender aquello que se ama*. Alianza Editorial.
- Moreno, J., & Méndez, N. D. (2015). Teaching Sciences in K-12 using 2D Educational massive online games. *Anais Temporários do LACLO*, 10 (1), 394-401.
- Nguyen, T. M. N. (2022). Effects of using computer-based activities in teaching English speaking at a high school in Ho Chi Minh City, Vietnam. *International Journal of TESOL & Education*, 2 (1), 190-212.
<https://doi.org/10.54855/ijte.222112>
- Ortiz-Rojas, M., Chiluita, K., & Valcke, M. (2017). Gamification in computer programming: Effects on learning, engagement, self-efficacy, and intrinsic motivation. In M. Pivec & J. Grundler (Eds.), *Proceedings of the European conference on games-based learning*, (pp. 507–514). Academic Conferences International Limited.
- Papadakis, S., Vaiopoulou, J., Kalogiannakis, M., & Stamovlasis, D. (2020). Developing and Exploring an Evaluation Tool for Educational Apps (ETEA) Targeting Kindergarten Children. *Sustainability*, 12 (10), 4201.
<https://doi.org/10.3390/su12104201>
- Pink, D. H. 2010. *Drive: The Surprising Truth about what Motivates Us*. Canongate.
- Sun, J. C-Y., & Hsieh, P. H. (2018). Application of a Gamified Interactive Response System to Enhance Intrinsic and Extrinsic Motivation, Student Engagement and Attention of English Learners. *Educational Technology and Society*, 21 (3), 104-116. <https://psycnet.apa.org/record/2018-37031-009>
- Suyunov, B., Kobilova, N., & Suyunov, J. (2023). Gamification as a method of increasing motivation of students of Higher Educational Institutions in teaching a foreign Language on the example of English. *Science and innovation*, 2 (B2), 41-45. <https://doi.org/10.5281/zenodo.7603727>

- Vathanalaoka, K. (2022). Effects of gamification in English language learning: The implementation of Winner English in secondary education in Thailand. *LEARN Journal: Language Education and Acquisition Research Network*, 15 (2), 830-857. <https://so04.tci-thaijo.org/index.php/LEARN/index>
- World Medical Association. (2013). Declaration of Helsinki: Ethical principles for medical research involving human subjects. *JAMA*, 310 (20), 2191-2194. <https://doi.org/10.1001/jama.2013.281053>
- Zhang, S., & Hasim, Z. (2023). Gamification in EFL/ESL instruction: A systematic review of empirical research. *Frontiers in Psychology*, 13, 1030790. <https://doi.org/10.3389/fpsyg.2022.1030790>

10. ANNEXES

ANNEX 1. Written rubric.

	Exemplary 0.21 – 0.33 points	Partially Proficient 0.11 – 0.20 points	Deficient 0 – 0.10 points	POINTS
Coherent content	The message is clear, precise and coherent, with interesting ideas that deal with the proposed topic. Extension is correct.	The message sometimes is not clear and ideas are not original.	The message is too confusing, misleading or incoherent, with irrelevant or reiterative ideas. The extension is not correct.	
Originality	Ideas, for one's point of view, can be developed and original opinions are provided. Ideas are properly illustrated and supported.	Ideas are not always properly illustrated and supported and the author's point of view is blurred.	It is difficult to distinguish the author's personal point of view. Generalities are included without foundation because no data or examples are provided to illustrate the ideas put forward.	
Discourse markers	Discourse markers are used in a varied and effective way	Some discourse markers are used but not all of them are used properly	Suitable discourse markers are missing and there is not a correct and logical thematic shift	
Grammar	There are no important grammatical mistakes	There are one important grammatical mistake	There are important grammatical mistakes	
Vocabulary	The author makes a good use of varied and extensive vocabulary	The vocabulary is limited	There are serious vocabulary mistakes	
Spelling and punctuation	There are no important punctuation and/or spelling mistakes	There are some punctuation and/or spelling mistakes	There are frequent punctuation and/or spelling mistakes	

Source: Own elaboration based on the written rubric used in EvAU English University entrance test, exercise 5, in Madrid Community

ANNEX 2. Oral presentation rubric

Activity	Exemplary 0.25-0.33 points	Proficient 0.16-0.24 points	Partially Proficient 0.07-0.15 points	Incomplete 0-0.07 points	Points
Concept	Has a clear picture of what they are trying to achieve. Adequate description of what they are trying to do and generally how his/her work will contribute to the final project.	Has a fairly clear picture of what they are trying to achieve. Can describe what they are trying to do overall but has trouble describing how his/her work will contribute to the final project.	Has brainstormed their concept, but no clear focus has emerged. Goals/final product not clearly defined.	Little effort has been spent on brainstorming and refining a concept. Unclear on the goals and how the project objectives will be met.	
Script/ Storyboard	The storyboard illustrates the video presentation structure with thumbnail sketches of each scene. Notes of proposed transition, special effects, sound and title tracks incl: text, color, placement, graphics, etc. Notes about proposed dialogue/ narration text are included.	The storyboard includes thumbnail sketches of each video scene and includes text for each segment of the presentation, descriptions of background audio for each scene, and notes about proposed shots and dialogue.	The thumbnail sketches on the storyboard are not in logical sequence and do not provide complete descriptions of the video scenes, audio background, or notes about the dialogue.	There is no evidence of a storyboard or script.	
Content/ Organization	The content includes a clear statement of purpose or theme and is creative, compelling and clearly written. A rich variety of supporting information in the video contributes to the understanding of the project's main idea. Events and messages are presented in a logical order. Includes properly cited sources.	Information is presented as a connected theme with accurate, current supporting information that contributes to understanding the project's main idea. Details are logical and persuasive information is effectively used. The content includes a clear point of view with a progression of ideas and supporting information. Includes properly cited sources.	The content does not present a clearly stated theme, is vague, and some of the supporting information does not seem to fit the main idea or appears as a disconnected series of scenes with no unifying main idea. Includes few citations and few facts.	Content lacks a central theme, clear point of view and logical sequence of information. Much of the supporting information is irrelevant to the overall message. The viewer is unsure what the message is because there is little persuasive information and only one or two facts about the topic are articulated. Information is incorrect, out of date, or incomplete. No citations included.	

Quality	Movie was completed and had all required elements. The video was well edited and moves smoothly from scene to scene with proper use of transitions. Audio and other enhancements were well used.	Movie was completed and contained all required items. Editing was not done as well as it should have been. Some poor shots remain. Movie is still somewhat choppy. Audio and other enhancements were utilized, but not for maximum effect.	Movie was made but had very little if any editing. Many poor shots remain. Video was very fragmented and choppy with little to no audio reinforcement.	There was no movie, or tape was totally unedited with no transitions or audio support of any kind.	
Teamwork	Student met and had discussions regularly. All students on the team contributed to the discussion and were part of the final project. Team members showed respect with each other.	Students met and had discussions regularly. Most of the students on the team contributed to the discussion and were part of the final project. Team members mostly showed respect with each other.	Only a couple of team meetings were held. Most of the students on the team contributed at some level, but a majority of the work was done by one or two.	Meetings were not held and/or some of the team members did not contribute at all to the project. Low levels of respect were evident within the team.	
Timeliness	All project deadlines were met.	Most project deadlines were met. Those that were late did not have significant impact on the finished project.	Many project deadlines were not met, resulting in some impact on the finished project.	Deadlines were regularly missed, having a significant impact on the final project.	
Final Score					

Source: Own elaboration