



Article

Exploring the Perspectives of Middle School Teachers' Towards Gamification in the EFL Context

Ilhem Khadija Boudour¹

¹University of Mostaganem, Mostaganem, Algeria

SUBMISSION TRACK

Received: December 2, 2023

Final Revision: January 5, 2024

Accepted: January 6, 2024

Available Online: January 8, 2024

KEYWORDS

ICT, Gamification, digital gamification, Algerian EFL teachers, MAXQDA

CORRESPONDENCE

E-mail: khadiboudour@gmail.com

A B S T R A C T

The current paper looks at investigating middle school teachers' perspectives towards gamification in the EFL context in Algeria. To this end, the study explores the potential of incorporating digital gamification in EFL teaching with a focus on teachers' implementation of Gamification in the classroom context. In order to gain a clearer understanding of the phenomenon, the researcher adopted qualitative research using a semi-structured interview. The participants were a total of 11 EFL teachers from various middle schools in Mostaganem – Algeria. The interviewees were selected based on their use of digital technology and game-based teaching methods. The collected data was thematically analyzed using MAXQDA software, employing a descriptive analysis approach. After the analysis, the findings show that teachers frequently incorporate ICT-based and game-based lessons into their teaching practices. Additionally, in accord with their responses, teachers have a clear notion of gamified teaching and learning. However, they lack the necessary expertise to effectively implement gamification. Being a novelty in the arena of language teaching, teachers call for training programs to enable them to effectively incorporate gamification in the EFL classroom. As the study concludes, it provides a clear understanding of the teachers' standpoint regarding gamification, their openness, and readiness to adopt modern teaching methods. It also offers valuable insights into state-of-the-art teaching methods and paves the way for further considerations in gamified lesson design.

I. INTRODUCTION

The education policy in Algeria encourages teachers to be more flexible in their teaching and to adapt methods and techniques that appeal to the 21st-century learner. EFL teachers have different perspectives on gamification in general and mobile learning in particular. Their perspectives depend on their awareness of these new concepts, as well as their mastery and experience. Additionally, there is a considerable gap in the literature tackling gamification in the Algerian classroom. Gamification techniques are still considered a novelty, but some of their elements, such as rewards, competition, and points, are already being used as extrinsic motivational factors to enhance learners' engagement and motivation. As Prensky (2002) stated, one of the main challenges in formal

education is maintaining students' motivation to stay engaged in the learning process. The 21st century learner is demanding. Hence, why not keep up with the digital generation? Youngsters belonging to this generation consider computers as a second language, one that the older generation does not speak or master (Prensky, 2001). In the sphere of CALL (Computer-Assisted Language Learning), technology is used as a tool to facilitate learning compared to traditional teaching methods (Zou, 2022; Mirani, 2019; Derakhshan, 2015;). Gamification, however, is much more than just a tool for fun; it adds value to the teaching process that teachers are often unaware of. Teachers still confound the implementation of digital technology, games or gamification. Therefore, it is important to refer to playfulness, game-based learning, and

game mechanics.

Playfulness has long been introduced into the learning environment to enhance learners' cognitive, behavioral, affective, and sociocultural engagement (Plass, Homer, & Kinzer, 2015). Play is the primary factor in both gamification and game-based learning. But, is gamification a new concept? Gamification has roots that predate its actual application in education (Xezonaki, 2022; Detering, et al 2011) define gamification as the utilization of game elements in contexts that are not related to games. This is to boost users' performance, behavior, and engagement. Gamification, as a term, first appeared in the 2000s and was initially used in industry (Groh, 2012). Unlike GBL, which is a playful activity with an educational purpose, gamification is characterized by the use of incentive systems. Scholars did not settle on one definition of GBL. According to Salen and Zimmerman (2003), a game is "a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome." Added to that is the notion of feedback, interaction, and emotion as mentioned by Kapp (2012). In other words, games elicit strong emotions and provide immediate, direct, and clear feedback. In addition, "a rule-based play with determined goals" (Groh, 2012, p. 39).

In order to distinguish game-based learning from gamification, it is important to highlight their similarities and the common components they share. In her report Kronisch (2016) elaborates on a definition: 'a game is any interactive activity that the persons engaging in it are experiencing as playful'. Both GBL and gamification share the criteria of fun and enjoyment. Both gamification and GBL are distinguishable in educational settings, yet they overlap and share game elements

that create playfulness in a serious context, which is the classroom. However, serious games are fully-fledged and made for non-entertainment purposes. Playfulness characterizes a learning atmosphere in which learners acquire knowledge through entertainment, giving rise to the term "edutainment."

Learning in a gamified environment has undeniable advantages. This includes overcoming shyness, increasing self-confidence, involving all students in the class, and encouraging learners to engage in learning, discovery, critical thinking, and problem-solving. As a result, it enhances self-esteem and promotes self-improvement (Cojocariua & Boghian, 2014). These are qualities most associated with gamification, and it is often criticized for some shortcomings, such as noise, content adaptation, and teacher control, among others. In the same vein, Gamified platforms not only improve users' experience in terms of engagement, motivation, and enjoyment but also teach facts and content in an environment characterized by teamwork and peer interaction (Owen & Licorish, 2020).

A game is characterized by a goal to be achieved, limiting rules to reach the predefined goal, and feedback on the progress toward the goal. (Sailer, et al, 2013) provide the components of a game: points, badges, leaderboards, performance graphs, meaningful stories, avatars, and teammates. These components are integral parts of gamification and are referred to as game design elements, as explained by Detering et al. (2011) in Table 1.

Since games can be played either individually or collectively, game mechanics can be classified into self-elements and social elements (Seaborn & Fels, 2015). The former encompasses points, badges, trophies, storylines, time restrictions,

Table 1. Taxonomy of game design elements by (Detering, et al, 2011)

| Level | Description | Example |
|---------------------------------------|--|--|
| Game interface design patterns | Common, successful interaction design components and design solutions for a known problem in a context, including prototypical implementations | Badge, leaderboard, level |
| Game design patterns and mechanics | Commonly reoccurring parts of the design of a game that concern gameplay | Time constraints, limited resources, turns |
| Game design principles and heuristics | Evaluative guidelines to approach a design problem or analyze a given design solution | Enduring play, clear goals, variety of game styles |
| Game models | Conceptual models of the components of games or game experience | MDA; challenge, fantasy, curiosity; game design atoms; CEGE |
| Game design methods | Game design-specific practices and processes | Playtesting, playcentric design, value conscious game design |

aesthetics, and virtual goods. Whereas the latter include leaderboards, interactive cooperation, storyline, and virtual goods. (Huang & Soman, 2013) provide an explanation of the fundamental concepts of gamification such as tracking mechanism, currency, level, rules as well as feedback. Game mechanics can be applied in a variety of ways depending on the context. A teacher may favour one mechanism or element over another taking into consideration the learner's learning style, needs conditions and the objective to be reached. Moreover, a combination of these elements adds to the classroom environment and creates a culture typical to each class or lesson.

While previous research in the field of educational gamification put more emphasis on learners, little has been said about teachers' attempts to gamify their classrooms and the challenges faced (Kabilan, Annamalai, & Chuah, 2023) particularly in the Algerian middle school. After all, all stakeholders should be given equal consideration in order to achieve quality results. Hence, the present study is a breakthrough in educational technology since teachers are a focal participant in the process of knowledge transmission and teacher/ learner interaction. A good understanding of teachers aspirations along with suitable artifacts will efficiently meet learners' needs.

The primary objective of this exploratory paper is to shed light on how Algerian middle school teachers perceive gamification as a new strategy in education and to evaluate their actual use of gamification and game mechanics in the teaching process. This will take into account their awareness, competence, and experience. Eventually, we will be able to identify the challenges and concerns that teachers face when implementing gamification-based lessons at the Algerian middle school level. In this study, the main research question is: What are the perspectives of Algerian EFL teachers towards the implementation of gamification as a certified teaching/learning strategy? In this context, the aim of the study is to gather and analyse the EFL teachers regarding gamification. While tackling their perspectives, the study offers more insights on their awareness, competence and experience vis-à-vis gamification. The conceptual framework underpinning this study draws from the theoretical foundation of the TPACK model or the theory of Technological, Pedagogical Content Knowledge framework (Koehler, et al, 2014).

II. METHODS

Data Collection

The present qualitative research is exploratory in nature. It utilizes a structured interview for data collection because this method is well-suited for exploring participants' opinions. It also allows researchers to delve deeper into the information provided and seek clarification on answers. The interview addresses three aspects: teachers' awareness and competence in relation to new teaching methods, as well as their experience in implementing gamification, games, and game mechanics. Eleven middle school EFL teachers participated in the interview to share their attitudes towards the use of gamification in education. The interview was conducted either over the phone or through audio messages via messenger. Two female participants chose the latter option because they felt more comfortable.

Participants

Eleven middle school EFL teachers have agreed to participate in the interview. Some of them participated on the phone because they were not in the city on the day of the interview. Some were interviewed face to face. The participants were randomly selected after completing a survey on Facebook to identify teachers who utilize ICTs in their teaching. The survey was posted on three EFL teaching groups, where teachers were asked to choose the ICT tool that they mostly use in their teaching: either laptop/computer, data projector, or mobile applications. The teachers' ages range from 25 to 50 years old, and their years of teaching experience range from 5 to 25 years.

Data Analysis

For the purpose of selecting participants, a survey was posted on Facebook in two educational groups for EFL middle school teachers in the city of Mostaganem-Algeria. The survey was about whether teachers use data projectors, cell phones, and/or iPads or the traditional method of teaching. A total of 53 teachers answered the Facebook post, amongst which 29 used digital technology like cellphones and iPads as well as games. The latter were contacted for the purpose of the interview. Eventually, 18 teachers agreed to participate in the interview via messenger and phone, but only 11 participants actually completed the interview.

Teachers who did not complete the interview on Messenger were excluded from the coding process of data analysis. The interviews were conducted on the phone and were transcribed using MAXQDA.

The data obtained from the interviews was analyzed using a thematic approach. It is well-suited for the themes discussed in the interview, which include awareness, competence, and experience. MAXQDA 2022 software was used to code the data based on the aforementioned categories.

III. RESULTS

The continuous development of a teacher is supported by their ability to innovate and implement new teaching strategies to transmit knowledge. Some teachers strive to employ innovative methods in an attempt to capture the attention and interest of learners as much as possible. From game-based learning to gamification, the pendulum swings back and forth to achieve the desired goals. Little doubt exists about the utility of gamification and game-based learning (GBL); however, teachers often show reluctance to apply them. This could be due to familiarity, time constraints, or anxiety towards class management and teacher-learner interaction. Moreover, age difference also plays a role. Young teachers are more or less open to applying gamification compared to adult teachers (Cojocariua & Boghian, 2014).

Awareness

Research question 1: Are EFL teachers familiar with new teaching methods, including gamification?

Most teachers use the terms gamification and game-based learning interchangeably. However, when defining gamification, they add the notion of fun and interest to differentiate it from GBL. Gamification is described as a strategy used by teachers in the classroom to facilitate the learning of new language skills in a funny and interesting way. Another criterion for gamification is performance. “I believe that gamification is the utilization of games in the learning process to enhance learners’ performance, whether it be in written or oral form.” Overall, teachers associate the use of games, whether they are classical or ICT-based, with facilitating learning and improving performance. Amel, one of the interviewed teachers, referred to GBL as: “a technique or a method used in learning.” It involves playing games to understand

the concept, such as crosswords, pickup games, the hangman game, and keyboarding games.

Teachers express their bewilderment in front of the constant emerging technologies and often say that they cannot keep up with these changes. Some teachers who are not well acquainted with newer technologies, refer to the younger generation to get informed about use and usage. Other teachers rely on ratings and popularity of certain apps or software before choosing to adopt them. One of the teachers reported: “I heard of e-learning websites for language learning. I created an account, but I didn’t use it in teaching”.

Competence

Research Question 2: How competent are they in implementing gamification techniques?

In this section, participants were interviewed or assessed on their proficiency in gamification and game elements, as well as their actual utilization of ICT tools, as these are fundamental to the gamification process. All interviewed teachers agreed on the use of ICTs, yet it is limited to a data projector, speaker, iPad, and laptop, since “it is an obligation to use the computer and the data show....” A few cohorts used cell phones along with a data projector to display content.

Teachers are trying to adapt to modern means of communication, such as Facebook and Telegram, by using interactive groups. Social media platforms help parents stay informed about the educational field, and the same goes for learners who can collaborate with their peers and teachers beyond the traditional classroom setting. The latter often posts additional educational curricular resources for learners to benefit from. However, access to the internet is limited to only some learners. Some teachers said that they include social media to maintain contact with learners. “I do interact with my dear learners through a Facebook group messenger.” I rarely use the Viber app. Others don’t use it because some learners don’t even have access to the internet. When asked about applying gamification, teachers didn’t differentiate between games and gamification. However, after explaining the concept of gamified apps or computer games used in teaching, they rejected the idea of using such methods, citing a variety of reasons such as outnumbered classes and lack of time. On the other hand, they are satisfied with the use of educational

games such as puzzles, board games, spelling games, and jigsaw puzzles because they experience learners' excitement.

Among the interviewed teachers, only one used gamification in teaching. She attributed this to the training she received at the beginning of her career. She stated, "Well since I learned about gamification in my training and applied it in my class, I can confidently say that it is extremely important." The teacher has given examples of Duolingo and other language learning apps, such as Cake, FluentU, and HelloTalk. "In the Duolingo game, there are many stages. For example, when you choose the beginner level." You can find plenty of subjects to learn, for example. Fruits. House Parts. In the sea... etc.

Despite teachers not applying gamification or using educational digital apps in their classrooms, they unconsciously apply elements of it. The game elements of gamification explained above are often present in EFL classrooms. Teachers were given a number of game elements such as levels, rewards, badges, rules, challenges, competition, timers, and goals. Competition and challenge are recurring game elements. According to the interviewed teachers, learners are more active when they are placed in competitive teams. This helps to maximize their attention.

Experience

Research Question 3: *To what extent do learners accept the idea of learning through gamification?*

Teachers show positive attitudes towards games: "I really enjoy playing games with my learners (BREAK ROUTINE)." They believe that being comfortable with games is essential for effective teaching and learning. In order to maximize the benefits for their students, teachers should thoroughly prepare their gamified lessons and utilize the available resources. Varying teaching strategies keep learners attentive and prevent them from falling into a routine. Some teachers think that if the entire EFL program is gamified, boredom may occur and learners may lose engagement and motivation. Thus, teachers would be better off being flexible in their choice of techniques according to the needs and learning styles of their students. "Gamification is just one method among many teaching strategies; it is not mandatory to apply it. It is up to the teacher to

choose what suits their learners."

The next element is the reward system. Whether it is a point, a star, a round of applause, or even a candy, it has an undeniable effect on learners' behavioral performance. "I often use all these game elements, but I find that rewards - competitions, and challenges - are efficient, and learners like rewards a lot, even if it is a simple gift." Other elements, such as levels and timers, occur less frequently. Teachers could observe the usefulness of applying gamification and its elements to learners' behavior and performance. "I strongly believe that gaming is crucial in an EFL program as it offers numerous advantages, such as increasing learners' motivation." 2/ Improving knowledge retention. "3/ better learner engagement."

IV. DISCUSSION

In an attempt to renovate their teaching methods, teachers are considered as gatekeepers to the integration of technology in the classroom (Wu, Zhou, & Li, 2023). They often encounter difficulties that disrupt the flow of the class. Teachers face various issues, primarily technical when delivering gamified content. Despite the usefulness of gamifying the learning process, participants find it difficult to apply in an overcrowded class of more than 30 learners. Along with crowded classes, which is agreed upon as the first barrier by all participants, chaos and noise occur as a result. This fact prevents teachers from effectively managing the energy of the learners and fulfilling their need to play and learn simultaneously. "Teaching students to understand and respect the rules of the games can be demotivating, as it requires time, especially if they are not accustomed to it. Time constraints and a lack of suitable logistics are also significant factors." When asked whether they would recommend gamifying instruction to their peers, one of the participants mentioned, "Sometimes I do, but it's a bit hard to convince them. They know that they can face problems with class management."

As a matter of fact, shifting to a newer method of instruction is a lengthy process that requires resources. "Our institutions still lack the necessary resources, and even the number of students in a class precludes the use of such teaching and learning methods." Policymakers should provide logistical support in terms of internet access, smaller class sizes, and training to ensure the successful

implementation of gamified teaching. "It is tiring for the teacher to play the same game with more than eight or nine groups, especially considering the large number of pupils in some classes." Preparation and training enable the successful implementation of gamification. However, some teachers may lack proficiency in using ICTs, while others may be hesitant to adopt new teaching techniques due to concerns about functionality or losing control over the classroom. Eventually, being well prepared makes it easier for the teacher to implement gamification, as some teachers find it challenging to apply games on the screen. Moreover, there is a significant need for ongoing professional development focused on designing and implementing gamified lessons effectively. Educators must be equipped with the necessary skills and knowledge to integrate gamification into various pedagogical approaches and technological platforms. Additionally, continuous research and development are essential to evaluate the impact of gamification on learning outcomes and to evolve these strategies based on empirical evidence.

V. CONCLUSIONS

In conclusion, the enthusiasm of teachers toward incorporating gamification in educational settings is a promising sign for the future of learning. However, realizing the full potential of gamified learning systems necessitates a collaborative and well-coordinated effort from all stakeholders involved. This includes not only teachers but also learners, parents, syllabus designers, and policymakers. Each group plays a vital role in overcoming the barriers to successful gamification implementation, from technical challenges to resistance to change in conventional teaching methodologies. It is also critical to approach gamification with ethical and inclusive considerations, ensuring that it benefits a diverse range of learners and fosters a positive, collaborative educational environment. By addressing these aspects, we can steer the educational system towards a more engaging, interactive, and effective paradigm, leveraging the power of gamification to enhance the learning experience for students of all ages.

REFERENCES

Koehler, M., Mishra, P., Kereluik, K., Shin, T., & Graham, C. (2014). The Technological Pedagogical Content Knowledge Framework. In J. S. al., *Handbook of Research on Educational Communications and Technology* (pp. 101-111). Springer.

Wu, M., Zhou, Y., & Li, L. (2023). The effects of a gamified online course on pre-service teachers' confidence, intention, and motivation in integrating technology into teaching. *Education and Information Technologies. Springer*. doi:<https://doi.org/10.1007/s10639-023-11727-3>

Cojocariua V. M. & I. Boghian. (2014). Teaching the Relevance of Game-Based Learning to Preschool and Primary Teachers. *Procedia. Social and Behavioral Sciences*, 2.

Connolly, T. M., Boyle, E. A., MacArthur, E., Hainey, T., & Boyle, J. M. (2012). A systematic literature review of empirical evidence on computer games and serious games. *ELSEVIER Education& Computers*.

Detering, S. D. Dixon, R. Khaled, L. Nacke. (September 2011). From Game Design Elements to Gamefulness: Defining Gamification. *MindTrek'11*, (pp. 9-15). Tampere, Finland.

Derakhshan, A., Salehi, D., & Rahimzadeh, M. (2015). Computer-Assisted Language Learning (Call): Pedagogical Pros and Cons. *International Journal of English Language and Literature Studies*, 4, 111-120.

Dicheva, D., Dichev, C., Agre, G., & Angelova, G. (July 2015). Gamification in Education: A Systematic Mapping Study. *Educational Technology & Society*.

Groh, F. (2012). Gamification: State of the Art Definition and Utilization. *Ulm University. Institute of Media Informatics*, 39.

Huang, W.Y., & Soman, D. (2013). *Practitioner's Guide to Gamification in Education*. Toronto: Rotman School of Management. University of Toronto.

Kabilan, M. K., Annamalai, N., & Chuah, K.M. (2023). Practices, purposes and challenges in integrating gamification using technology: A mixed-methods study on university academics. *Springer*. Retrieved

from <https://link.springer.com/article/10.1007/s10639-023-11723-7>

Kapp, K. (2012). *Gamification of Learning and Instruction*. Pfeiffer.

Kim, S, K. Song, B. Lockee, J. Burton. (2018). *Gamification in Learning and Education*. Switzerland: Springer.

Koehler, M. J. , P. Mishra, K. Kereluik, T. S. Shin, C. R. Graham. The technological pedagogical content knowledge framework, in *Handbook of Research on Educational Communications and Technology*. Springer: New York

Kim, B. (2015). *Understanding Gamification*. Library Technology.

Kronisch, C. (2016). *Gamification, Concepts and theories*. https://www.academia.edu/es/24042745/Gamification_Concepts_and_Theories

Mirani, J.I., Lohar, S.A., Jat, A.R., & Faheem, M. (2019). A Review of Computer-Assisted Language Learning (CALL): Development, Challenges, and Future Impact. *Education and Linguistics Research*, Vol 5. No.1

Owen, H., & Licorish, S. (2020). Game-Based Student Response System: The Effectiveness of Kahoot! on Junior and Senior Information Science Students' Learning. *Journal of Information Technology Education*, 19, 511-553. doi:<https://www.informingscience.org/Publications/4608>

Plass, J., Homer, B., & Kinzer, C. (2015). Foundations of Game-Based Learning. *Routledge*. Taylor & FrancisGroup.

Prensky. (2001). The Games Generation:How Learners Have Changed. In M. Prensky, *Digital Game-Based Learning* (p. 10). McGraw-Hill.

Prensky, M. (2002), “Not only the lonely: implications of “social” online activities for higher education”, *On the Horizon*, Vol. 10 No. 4.

Sailer , M., Hense, J. U., Mayr, S. K., & Mandl, H. (2013). How gamification motivates: An experimental study of the effects of specific game design elements on psychological need satisfaction. *ELSEVIER*, 373.

Salen , K., & Zimmerman, E. (2003). *Rules of Play: Game Design Fundamentals*. The MIT Press.

Seaborn, K., & Fels, D. (2015). Gamification in theory and action: A survey. *ELSEVIER. International Journal of Human-Computer Studies*.

Xezonaki, A. (2022). Gamification in preschool science education. *Advances in Mobile Learning Educational Research*, Vol. 2 No. 2

Zou, B., Chen, X. & Sun, W. (2022). K-12 teachers' perceptions of the effectiveness of online EFL teaching and learning during the COVID-19 pandemic. *Journal of China Computer-Assisted Language Learning*, 2(1), 45-68.