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The Usage of Virtual Learning Environments and Gamification to Keep the Engagement of  
EFL Students during Class and off Class Time in Virtual Classes

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## **The Usage of Virtual Learning Environments and Gamification to Keep the Engagement of EFL Students during Class and off Class Time in Virtual Classes**

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### **Abstract**

Since the usage of technology in the classrooms is increasing rapidly, the purpose of this paper is to present different advantages and disadvantages of using virtual Learning Environments (VLEs) and gamification to keep the engagement of EFL students, during class time and off class time in virtual classrooms by analyzing and collecting information from different authors that show the teachers and students' opinion on the topics. The findings demonstrated that even though VLEs and Gamification have both advantages and disadvantages, there are more positive aspects, such as online communication, instant feedback, promotion of independent thinking, improving psychological-related aspects in students, increasing motivation and engagement, and more, while a few of the disadvantages found were the cost of having a VLE, the difficulty for students to use the tools provided, the students' opinion on the games and competitiveness. With this information, an educator can analyze whether or not to use these elements in his or her classes.

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**Keywords:** EFL students, engagement, gamification, virtual classes, virtual learning environments.

## Resumen

Dado que el uso de la tecnología en las aulas está aumentando rápidamente, el propósito de este documento es presentar diferentes ventajas y desventajas del uso de entornos virtuales aprendizaje (AVAs) y gamificación para mantener la participación de los estudiantes de inglés como lengua extranjera, durante el tiempo de clase y fuera de clase en las aulas virtuales. Se analizó y recopiló información de diferentes autores que muestran la opinión de docentes y estudiantes sobre los temas. Los hallazgos demostraron que, aunque los AVAs y la gamificación tienen ventajas y desventajas, hay más aspectos positivos, como la comunicación en línea, la retroalimentación instantánea, la promoción del pensamiento independiente, la mejora de los aspectos psicológicos de los estudiantes, el aumento de la motivación y el compromiso, y más; por otro lado, algunas de las desventajas encontradas fueron el costo de tener un AVA, la dificultad para los estudiantes en el uso de las herramientas brindadas, la opinión de los estudiantes sobre los juegos y la competitividad. Con esta información, un educador puede analizar si utiliza estos elementos en sus clases.

**Palabras clave:** clases virtuales, estudiantes de lengua extranjera, entorno virtual de aprendizaje, gamificación, participación.

## Introduction

While the world changes every day, teachers also seek more ways to teach and provide a meaningful learning experience for the students; for this reason, it is the teacher's responsibility to constantly do research to identify innovative methodologies and approaches

to apply them in his or her classes. In this regard, technology has been advancing exponentially with each passing day, and consequently, its use in both physical and virtual classrooms has been inevitable to adapt to current events and new generations. In this way, educators always seek to find new ways to maintain the attention and interest of students in the language and the classes, which is why it is proposed to find a way to include technology in the classrooms without it being seen as a distraction, but rather as a tool for better education.

In Costa Rica, there is a remarkable difference in the availability of technology in learning institutes. Public institutions lack technology in their classrooms, while private ones have access to good internet and technology. Universidad de Costa Rica (UCR) (Carmona, 2024) along with the *Fundación Paniamor* (2023) surveyed the access and use of the internet, applications, and digital platforms with minors. The study pointed out that only 21.6% of kids and teenagers use the Internet daily in their schools or high schools, on the other hand, the study also revealed that 22% stated that they had never used this service in their educational centers. Meanwhile, Paniagua (2023) mentioned that in the first National Census of Digital Technologies by the Education Research Institute at UCR and the Ministry of Public Education, 99.60% of the institutes have good internet connection, with good speed, private institutions also reported that 91.38% have a video beam, and 70.56% have desktop computers available.

For this reason, this paper explores the advantages and disadvantages of using Virtual Learning Environments (VLEs) and gamification to keep students engaged and motivated to learn the language in a virtual classroom to avoid students getting bored or distracted easily during class time and keep their attention and interest during off-class time. Most of these institutes have been providing services for many years, yet they limit themselves to using textbooks and the knowledge of the teachers along with their respective methodologies; however, they leave aside all the benefits that technology can provide by

following a more traditional methodology. For this reason, this paper will address the pros and cons of using VLEs and gamification for English teachers to engage their students during and off-class time in virtual classes.

### **Virtual Learning Environments and Gamification**

Before addressing the advantages and disadvantages of Gamification and VLEs, it is imperative to describe what they are. Since the definitions may vary slightly from author to author, various points of view will be compared and contrasted. Furdu et al. (2017) stated that "gamification is used to transform the learning experience into an educational game by using game elements to motivate and keep the students active (usually by a system of rewards or by indicating their level of performance" (p. 2). On the other hand, Zichermann and Cunningham (2011) said that gamification can be defined as "the thought process and game mechanics to engage users and solve problems" (p. 14). Finally, a third interpretation comes from Kapp (2012), who mentioned that "gamification consists of using game-based game mechanics, aesthetics, and thinking to engage people, motivate action, promote learning, and solve problems" (p. 21).

To sum up, it can be inferred that gamification can be defined as the usage of games, with a series of rules, such as a scoring system and competition that can lead students to a better understanding of the language through having fun while learning. Guastalegnanne (2019) shared the idea that games can be enjoyable, and it is not a coincidence that playing is associated with happiness since games can capture people's attention while completing a task or reaching a goal. For this reason, when games are applied to a classroom, students can associate learning with having fun (Guastalegnanne, 2019). Additionally, he mentioned that it is important to clarify that even though games are usually associated with children, there are ways in which teachers can include games in a

classroom for adult students (Guastalegnanne, 2019). Some of these methods mentioned by the author are board games and roleplays.

Some of the points of view on how the games can be used are as follows. Role-playing games allow educators to teach different behaviors and their consequences, while, for example, strategy games help players learn to solve problems (Guastalegnanne 2019). In addition, there are even different types of games that provide benefits, such as group games, which can teach people how to cooperate and know each other. All in all, games are not exclusive to children and recreational activities; games have different hidden purposes of using the mind to complete them. For example, Bakhsh (2016) stated that “because the language used in any activity is unpredictable, teachers have to encourage them to actively construct language for themselves” (p. 3). In this case, using games has a hidden intention of providing more mediums of communication and learning while the students might think they are only having fun and not learning. Nonetheless, it is also important to remember that gamification is much more than just playing a game in class. It includes a series of method-solving strategies, rules, mechanics, and justification for each activity.

On the other hand, Dillenbourg et al. (2024) commented that VLEs have some characteristics to identify them such as the following:

- A virtual learning environment is a designed information space.
- A virtual learning environment is a social space: educational interactions occur in the environment, turning spaces into places.
- Students are not only active but also actors: they co-construct the virtual space. Virtual learning environments are not restricted to distance education: they also enrich classroom activities.

- Virtual learning environments integrate heterogeneous technologies and multiple pedagogical approaches. (p. 2)

With this information, it can be concluded that VLEs are digital spaces in which students can develop their education process for a certain class while taking advantage of the benefits that technology provides. Manegre and Sabiri (2020) elaborated on how some VLE could work:

The student would access the company website, create an account, and register for a class that accommodates their personal needs and timetable. At the time of the class, the student would access the classroom using their home computer or mobile device. (p. 4)

Every learning environment can be different depending on the applications, the teacher's decision, and the student's needs. Not every single learning environment will ask students to create an account; it could be an open space for everyone with a link. All in all, even though these two concepts are very different from one another, they can provide a good and better understanding of the classes and provide many benefits to the students.

### **Advantages of VLEs and Gamification**

Due to the rapid growth and use of technology, educational centers, and teachers have been looking for ways to catch up with the innovations that technology offers to apply it in classes. A way in which institutions can do this is by using VLEs and gamification in the classroom to get the student's attention for the majority of the class time. Furdu et al. (2017) commented that teachers can know if gamification is effective in their classes when the idea and implementation of it capture and retain the students' attention while also providing a challenge to them so they can learn as a result.

Some of the uses of these concepts can be summarized in the use of technology to connect students and teachers from different parts of the country, to save and maximize time, and of course to maintain the attention of students throughout the entire lesson. However, the advantages will be explained point by point in more detail in the next section.

## **VLEs**

### **Online Communication**

Nowadays having immediate and online connections with others and the world seems like a necessity; for this reason, for students, to be able to contact their teachers via VLEs quickly is important. Some of the platforms used for VLE already have a variety of options for communications, such as in-app chats, but students can also communicate and transmit information via forums, emails, or shared boards. Additionally, teachers can post assignments or important information for everyone to see in real-time. One of the ways to communicate is by video platforms such as Zoom or Google Meet. Menegre and Sabiri (2020) stated that “virtual classrooms have video conferencing technology that allows for face-to-face communication” (p. 6). In addition, Barker and Gossman (2013) commented that according to their research, communication in class and collaborative learning are factors to motivate students.

### **Instant Feedback**

One of the most beneficial aspects of VLE is the possibility of students getting instant or rapid access to feedback from their peers and teachers; this is connected to the fast communication that they provide. Students can learn better and faster if they can recognize their mistakes and analyze their weaknesses and strengths for every activity, while in a

traditional classroom, the teacher usually only gives the group general feedback; in a VLE, an educator can provide personalized feedback, which leads to the next point.

### **Monitoring Students' Progress**

One of the benefits of using virtual classrooms is that teachers can monitor the students' progress and assignments more realistically, but teachers cannot do that in a normal virtual video class. When using a VLE, teachers can be sure that students are performing according to the standards or what is desired for the course (Manegre & Sabiri, 2020).

### **Independent Thinking**

Barker and Gossman (2013) stated that "VLEs maximize student reflection and encourage progressive thought, and independent thinking" (p. 20). Using a VLE for classes can generate a space for students to be independent in a way that they can work alone and at their own pace, but still, they can contact the teacher if they need assistance. The idea of the VLE is for students to find their way of working while they learn.

### **Accommodations**

VLE can accommodate all students with different disabilities or special needs. This is possible since the teacher can, for example, enlarge the letters of the text, provide audio versions of the texts, and more to allow all students to receive and enjoy the class and material. Smith and Basham (2014) stated that combining text, audio, and other means can provide students with disabilities good access to different learning opportunities that

technology brings. Greer et al. (2014) stated that part of accessibility has to do with teachers being aware of individualized learning and provided some examples:

For example, if the online lesson offers a limited foundation to the critical concept, struggling students may not be able to connect the dots. Instead, they may require further context or an anchor to the new concept. Likewise, other students may require extended practice, multiple means to demonstrate knowledge/ competency, and explicit instruction that can be reviewed multiple times to gain an understanding and thus mastery. (p. 6)

### **Behavior**

Every person has a different way of learning and also a different personality; for this reason, online classes, specifically hosted on VLE's can be ideal for introverted people since students do not have to interact directly with their peers and teachers. Barker and Gossman (2013) commented that in these cases, introverted people can act more freely, such as extroverts because they do not have the pressure of their peers.

### **Time**

Some students might need extra or more time than others to comprehend a certain topic; however, in a normal classroom (face-to-face), students might not want to ask or have the necessary time to ask questions, while with the use of VLEs, teachers can ensure that all the class contents are in the virtual classroom and students can access it any time and whatever times they want to, to review it.

## **Gamification**

### **Better Environment**

Since gamification has increased in popularity within the last years, it is used more and more because it can contribute to a better environment among the students and also the teacher; this is because the experiences in the classroom can become more personalized, and students can experience more in real-life situations since teachers can tailor the games and activities to the students and class's goals and needs. Real context can help students face reality from a comfort zone, so later they can apply it in a real situation; nonetheless, as Gee (2008) stated:

For experiences to be useful for future problem-solving, they have to be interpreted. Interpreting experience means thinking—in action and after action—about how our goals relate to our reasoning in the situation. It means, as well, extracting lessons learned and anticipating when and where those lessons might be useful. (p. 1)

For this reason, gamification focuses on not only the games themselves, but also on the dynamics, mechanics, and frameworks of the class.

### **Tailored games**

Since the games are quite versatile and the rules do not have to be followed to the letter, this gives teachers the freedom to modify or invent games that better suit the needs of the students; this can be beneficial since the material that would be used in classes could be completely adapted to what students need and want to do during class. Oliveira et al. (2022) commented that some studies have shown that depending on the characteristics of the students in the different educational settings, it might be necessary to change or personalize the educational model because this can lead to a possible improvement of gamification on

students. To customize games for the students, there are many aspects teachers must consider. According to Oliveira et al. (2022), these are some of them: age, gender, place of living, learning style, goals, personalities, motivation, and instructor's preferences.

### **Psychology-Related Aspects**

Different types of games have different purposes. Games alone have benefits in a person's mental situation. For teachers, their students must be in good condition; for this reason, including games not only benefits their education but also their mental health and more. For example, Noda et al. (2019) stated that from a medical judgment, board games have positive results related to anxiety, ADHD symptoms, and cognitive functions. Additionally, Burgoyne et al. (2016) showed that games such as chess (a strategy game) are related to short-term memory and processing speed. This can be translated into the classroom since short-term memory and processing speed can be beneficial for students in their classes.

Yolageldili and Arikan (2024) also stated that "another advantage associated with games is that students' anxiety towards language learning decreases as games are employed. In language classes, learners feel stressed because they think that they have to master the target language that is unknown to them" (p. 2). Including games in the classroom can help students to relax and not think only about the contents but about the games and learn while playing.

### **Active Students**

Depending on the methodology or methodologies, students can be mostly listeners in class; however, with games, students can have a more active role in their learning. Students

must follow the rules of the games, but they are the ones who need to figure out any obstacle or challenge the games present. “As a result, games provide learners with a chance to direct their learning “(Yolageldili & Arda, 2011, p. 2).

### **Motivation and Engagement**

A good environment in class can have a direct impact on the motivation and engagement students have and the language they are learning. Hanus and Fox (2015) stated that “by applying gamification to the classroom, students could be motivated to learn in new ways or enjoy otherwise tedious tasks” (p. 1). However, it is crucial to note that every student has their unique reasons and motivations to study a language, and it is important to keep that motivation active, so students do not get discouraged when receiving classes. Kapp (2012) indicated that “gamification facilitates learning and encourages motivation using game elements, mechanics, and game-based thinking” (p. 1).

### **Disadvantages of Gamification and VLEs**

#### **VLEs**

##### **Asynchronous Classes**

This point has both benefits and disadvantages. As Dung (2020) mentioned, asynchronous classes are online courses that do not take place in real-time. Students must do their assignments in a time frame. They have more freedom and there are teacher-student interactions via discussion boards, email, and blogs. Even though asynchronous classes can present a benefit for students with complicated work schedules, it can become extremely impersonal. There is no direct face-to-face or even video contact with the

instructor and the peers. Students will lack speaking practice from their courses because of the lack of conversation. For example, Dung (2020) conducted a study in which 66.8% of the students interviewed experienced this during Asynchronous classes. Another 56.7% related to the lack of interaction with instructors, and lack of peer interaction in virtual classrooms 75,6%.

### **The Usage of the Tools**

Not all learning environments are the same; some include difficult tasks and components to use, and some do not. This can be a disadvantage or a challenge for students who are not so familiar with technology and the internet. Including VLEs in a classroom is a process that students and teachers should go into together; for this reason, it would involve a lot of time and explaining from the teacher's side to ensure that all students are aware and understand how to navigate the VLE to complete all the tasks and assignments provided for the course, Additionally, Qvist et al. (2015) mentioned that some students might have different attitudes toward the virtual environment and additionally students and institutions views on the VLEs seriousness and credibility.

### **The Cost**

Many institutions already have virtual spaces that students and teachers can use freely, nonetheless, not every institution has that. For instance, if it is not beneficial, economically speaking, it might not be a suitable option. McNelis (2014) mentioned that the cost of a VLE should be considered if the profit does not match the investment.

## **Lack of time**

VLEs are connected to the Internet, which can cause unexpected problems, from connectivity issues to glitches and errors on the web. Posey et al. (2010) stated that “professors have expressed their disgust about not having too much demand on their time.” (p. 5). In the case that the website does not work during class or off-class time, the teacher can waste time trying to solve the problem. It works the same for students; if they are working on a task and the internet disconnects they will probably lose their progress and cannot work anymore. The use of VLE is directly related to certain conditions such as Internet connectivity, electricity service, and even the capacity of each electronic device.

## **Gamification**

### **Usage of Rules**

Since gamification includes games in class, teachers must create and present a set of rules that students must follow to provide a good environment for everyone; Furdu et al. (2017) said that “by making play mandatory, gamification might create rule-based experiences that feel just like school” (p. 3). For this reason, even though it can be helpful, the overuse of games can create a feeling of obligation that can be reflected in a negative way for students.

### **Competition**

In all games there must be a winner; nonetheless, the main idea of using games in a classroom is not to insensitive competition among students and create rivalry; the idea is to help students in their learning process. These scenarios create an opening for teachers to

tell their students that failure can be viewed as an opportunity for learning, so they do not become unmotivated (Furdu et al., 2017). Of course, teachers will still need to state rules to win, but always pointing out that winning is not the goal; learning and the process of learning are.

### **Overworking**

Jiang (2016) suggested that there is a possibility that gamification might be effective at the beginning, but not over time. The author stated that “the decrease might be due to the lack of time, as other courses usually handed out assignments around that time” (p.7). This is because he believes that participation decreases noticeably over time, and it could be because students might have other assignments to complete with other courses.

### **Students' Opinion**

Learning is a process and is not supposed to be rushed; nonetheless, when a student resorts to studying a language in a private institution, they probably set their expectations high and assume they will learn the language in a short period. This mindset might have different origins; for example, students could need the language for vacation or for a new job position, and since they are against time they expect to learn fast. For instance, some students might think that anything outside of traditional learning is a waste of time; Toda et al. (2018) stated that in the research they found that some students thought other gamification projects were a waste of time and not enjoyable.

### **Focus Only on the Games and Activities**

Since the main intention of gamification is for students to play and learn, some students might forget the learning aspect of it and only focus on the game and not the contents. If the games played during class overshadow the educational content, then students forget about the main objectives of the games and do not learn the proposed topic. Even though preventing this can be easy (by balancing the game and learning in a well-planned proposal), this can also apply to VLEs since they are provided so students can have more freedom in their learning process.

### **Declining Effect**

Declining effects are related to the gradual loss of motivation and engagement due to the gamification that was deployed; e.g., the students start the activity motivated due to the novelty of gamification however they lose this motivation over time (Toda et al., 2018, p. 9). This could happen due to bad management of the methods and ideas provided with the games and the VLEs; nonetheless, it could be merely that students lose interest in these new activities offered at the beginning.

### **Conclusion**

By and large, there are different ways of teaching and learning, and educators are constantly looking for ways to help students in their learning process. For this reason, this paper aimed to find the advantages and disadvantages of using VLEs and Gamification to keep students engaged during class time and off class in virtual classes. Both VLEs and gamification have their positive and negative aspects, the first one presents good online communication between students and peers, instant feedback from the educator to the students; it allows the teachers to monitor the students' progress and for students to develop

more independent thinking. Lastly, some more advantages of VLEs are that they make it easier to accommodate the students' special necessities in a virtual environment; also, using VLEs allows students to manage their time better during assignments. Furthermore, some of the advantages of using gamification include a better environment in class due to the usage of games, the option to tailor games according to the students' needs and goals, and games can have a positive impact on students concerning psychological aspects such as reducing stress and improving processing speed. In addition, utilizing games in class can help students actively participate in the class, and that also helps them stay motivated and engaged during classes.

On the other hand, the disadvantages of using VLEs are described in turn.

Asynchronous classes can become very impersonal for students since they do not have contact with the facilitator. The usage of the different tools in the VLEs can be tricky for some students to use correctly. The cost of having a VLE can negatively impact the institutions, and finally, students can think that VLEs are a waste of time since they rely on an Internet connection, and if the connection fails, they cannot work. At last, the negative sides of gamification are that because games include rules, students can feel they are not playing and only following instructions as in any other class; also, competition can be negative if it is not managed properly, so the teacher must explain the importance of knowing the benefits of both winning and losing. In addition, students' opinions are important, and some students might think that playing is not educational and does not provide insights to the class; as well, students can get into the games without paying attention to the learning aspects. As stated before, teachers look for new activities and methods to apply in their classrooms, this paper focused on displaying the advantages and disadvantages of using VLEs and Gamification. Considering these findings, teachers can consider more clearly the different potential implications of applying them in a classroom and getting the most out of these methodologies to benefit their students.

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**DECLARACIÓN JURADA**

Yo, Josseline Morales Hernández cédula de identidad 1-1808-0911, estudiante de la Universidad Nacional, declaro bajo fe de juramento y consciente de la responsabilidades penales de este acto, que soy autor intelectual del Trabajo Final de Graduación Titulado "The Usage of Virtual Learning Environments and Gamification to Keep the Engagement of EFL Students during Class and off Class Time in Virtual Classes" , para optar por el grado de Maestría en Educación con énfasis en Pedagogía Universitaria.

Heredia, a los 21 días del mes de agosto del año 2024.

A handwritten signature in blue ink, consisting of several overlapping loops and lines, positioned below the date.

Refrendo

Los abajo firmantes avalamos el Trabajo de Graduación de la estudiante Josseline Morales Hernández, cédula 118090911, que lleva como título **The Usage of Virtual Learning Environments and Gamification to Keep the Engagement of EFL Students during Class and off Class Time in Virtual Classes**, dado que cumple con las disposiciones vigentes y la calidad académica requerida por el posgrado.

JUAN PABLO ZÚÑIGA VARGAS (FIRMA)  
PERSONA FÍSICA, CPF-04-0182-0569  
Fecha declarada: 01/10/2024 07:08:33 p. m.  
Esta es una representación gráfica únicamente,  
verifique la validez de la firma.

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Juan Pablo Zúñiga Vargas  
Profesor Tutor  
Maestría en Educación

Firmado por RITA MARIA ARGUEDAS VÍQUEZ (FIRMA)  
PERSONA FÍSICA, CPF-01-0734-0085  
Fecha declarada: 06/10/2024 05:38 PM  
Razón: Josseline Morales  
Lugar: Maestría Contacto: Dayana

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M. Ed Rita Arguedas Víquez  
Coordinadora  
Maestría en Educación