

## Glob. J.Arts.Humanit.Soc.Sci

ISSN: 2583-2034 Vol-3 Iss-7, page 841-853



# The Impact of Gamified Blended Learning on Student's Motivation

# BY

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# **Article History**

Received: 16/07/2023 Accepted: 28/07/2023 Published: 31/07/2023

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# **Abstract**

Motivation is a force that help students to move and enhance learning. This study aims to investigate the impact of using Gamified Blended Learning on students' motivation internal and external). The result of this study show that using GBL enhances students' motivation. The researcher used two tools to investigate the impact of using GBL. She used face to face interview and motivation questionnaire. This study recommended that the Ministry of Education should train teachers to use GBL in their teaching English Literature.

**Keywords:** Gamified blended learning, English literature, Motivation

# **INTRODUCTION**

Motivation is a force that derives students towards a good achievement. In some studies, it has been shown that a high motivation helps students to focus in the learning process. Learning English Literature is considered a challenge for most students. They suffer from the lack of enjoyment in learning. Using Gamification in education mediates students' motivation and engagement so that they enjoy the learning. Gamification in education include Gamified the material, the task, and the activities (Cuervo, 2022). It is the use of game elements such as chat and badges in non-gaming context. Gamification as a process deserve studying because it considered as a future of motivation. Students learn through competing themselves. Their attitude towards learning will enhance towards the content of any subject. Gamification pay attention to the two kinds of motivation intrinsic and extrinsic. Intrinsic is the basic because it leads students towards good achievement, not for waiting rewards. Rewards don't harm Intrinsic motivation. Games can be motivation and benefit for both students and learner (Cespon et al., 2022). Gamification depends on the idea of intrinsic motivation; students work to get rewards. It fosters the autonomous motivation. This methodology is used to motivate students in an interactive system in the process of given activity and in the learning process. According to literature, there are several fields that this approach can be used is online learning. The result of (Chans et al., 2021) study showed that 90% of the participants agreed that they motivated during learning more than the traditional method. Thus, this approach can improve students' motivation and participation in an online learning.

# **Problem of the study**

Many students lack of motivation and interest to learn. Most of them prefer to play video games instead of reading or doing their task. One of the possible reasons to make learning more fun and enjoyable is to use Gamification. There is no magic recipe for students to love learning but instead, teachers can design mix of learning and fun depends on their students' need. Game elements can engage learners. Using game elements can engage students in the learning process. There is limited implementation of Gamification in the learning environments. Little research has been written about the effect of Gamification in education (Alsawaier,2018). So that this study came to shed light on the Impact of Gamified Blended Learning of English Literature on Student Motivation.

# **Questions of the study:**

- 1. What is the impact of Gamified blended learning of English literature on students' motivation?
- 2. What is the impact of gender (male and female), study hours, and the place of residence on 11<sup>th</sup>-grade students' motivation and game elements of English literature as a foreign language?

#### Literature Review:

#### 4.2. Motivation

Learning is an active process. It requires motivation to complete this process. Therefore, Gamification is used in e-learning to motivate learners. Motivation is the force or desire given to someone to do something. In psychology, there are two kinds of motivation. Intrinsic motivations are those that are derived from our core self, while the world around us derives extrinsic motivation. Gamification uses competition intrinsic possessed by most people to encourage productive behavior. It has been used in teaching for many years, as some teachers used gold stars on posters next to students' names. Besides competing, Gamification encourages a sense of achievement in learners. Gamification can improve several positive steps in modern elearning systems, but some individuals do not like to play games. They do not need additional motivation. They consider it a waste of time. All types of learners should be considered when designing a modern e-learning system with Gamified elements (Lavoue et al., 2021).

#### 1.4.2. Definition of motivation:

Powering people to achieve a high-performance level and overcoming challenges to change. It is the driver of control in human behavior. It enhances behavior. It forces people to behave according to the management's point of view. In fact, any agent that causes (internal and external activity) in humans is considered motivation (Springer and Cham, 2017). According to Becirovic (2017), motivation consists of three components: effort, desire, and favorable attitude. Learning motivation refers to a student's needs and desires. Learning motivation is a mediator between the English learning environment and English learning environment, and English learning strategies. Motivation is the drive to someone to his goals. This drive is known as motivation. The drive comes from an internal or external source. Motivation comes from the Latin wordmaker," which means "to move. "Motivation is an internal desire that drives a person to achieve goals. It is one of the most important areas in human behavior.

## 2.4.2. Intrinsic and Extrinsic motivation

Particular theories can explain types of motivation. The most popular theoretical concept of motivation is divided into intrinsic and extrinsic. This idea appeared after the integrative and instrumental theory and has been widely accepted among educators.

Motivation is further classified into two main categories: Extrinsic motivation refers to the desire to get a reward and avoid punishment. It needs to persuade the learner to participate in activities such as homework. Both integrative and instrumental are also grouped under the branch of extrinsic motivation. It depends on the external outcomes because the interest in the reward or the punishment pushes the learners. When learners in learning are promised rewards, they will be highly motivated to come to class, study, and achieve goals, but when these rewards are taken away, students will not be interested in coming to class and learning English. It refers to a motivation to do work or an activity to achieve a task. Thus,

extrinsically learners do the task to be proud of others, such as parents or teachers. An interest in the task itself drives intrinsic motivation.

Educators have found that it is associated with high educational achievement. Students are likely intrinsically motivated if they get a result of a fact under their control. They are interested in mastering a topic and not getting good grades (Lam et al., 2018). Extrinsic motivation is associated with B.F Skinner's behavioral theories of human learning, focusing on rewards to direct and control learning behavior. Extrinsic motivation comes from outside of the individual. Extrinsic motivation comes from rewards like money and grades for the activity.

While intrinsic motivation refers to learning having its reward, students learn what they think is important to learn without compulsorily learning. Students have an internal desire to learn. The desire to learn is innate and comes from inside without rewards. It is an innate psychological need for competence and self-determination. The teacher must create a supportive learning environment (Malone,2021). It refers to the motivation to engage in any activity for its desire. Thus, intrinsically do the target because they think the target is enjoyable. Learners think that learning in itself is the aim of studying. Extrinsic motivation comes from outside of the individual. It rewards money and grades. Competition is generally extrinsic because it encourages the performer to win and not to enjoy the intrinsic rewards of the activity.

Many studies, such as (Hussain,2018), show that any student who gains a grade or a star spends less time doing the task than those who have an unexpected reward condition and those who do not receive reward. Self-determination theory proposes that individuals can internalize extrinsic motivation if that task fits their beliefs and fulfill their psychological needs. It is closely associated with cognitive behavioral theories. Piaget posits that when individuals experience a discrepancy between their experienced knowledge of the world and their private, Smiderle et al. (2020) defined intrinsic motivation as an internal need to do something because of the task without any outside reward. It is an essential part of self-determination theory. An interest or enjoyment drives it in the task existing within the individual.

According to Malone(2021), there are two kinds of motivation in learning English: integrative and instrumental. Desirability characterizes the first to integrate and follow the culture through the language. He pointed out that it is a part of a community or society that speaks the second language. It is based on the interest to learn a foreign language because of their need to learn about and associate with the people who use it or because of the purpose of participating in the second language using the same language in that community. Meanwhile, the second one indicates the operational cause of studying English. It indicates the practical value of learning a second language to increase the learners' knowledge and business opportunities in the future.

# **3.4.2.** The Importance of motivation in second language learning:

Motivation is important in success and failure in learning a foreign language. The motivated student learns higher and better than the less motivated student. Less motivated students are likely to lose their attention and misbehave. On the contrary, more highly motivated students will participate actively and pay more attention to certain learning tasks (Malone,2021). Many scholars acknowledge the importance of motivation in learning "it can influence what, when, and how we learn. "Motivated students engage in learning activities that help them to learn.

On the contrary, unmotivated students cannot do their efforts in learning as motivated students. According to Takahashi (2018), three main factors affect the speed of learners in learning English: age, personality, and motivation. He stated that motivation is the most important among them.99% of language learners who show strong motivation could achieve a reasonable working knowledge regardless of their language aptitude.

#### 4.4.2. Academic Motivation

Academic motivation is a major field in psychology. It predicts the connection between students' motivation and academic success. Many researchers have discovered the connection between integrating different kinds of motivation, such as intrinsic and extrinsic motivation. Motivation is required to enhance academic achievement and performance. The self-determination theory introduces the two categories of motivation; intrinsic and extrinsic. Extrinsic motivation is behavior forced by external sources that vary from materialistic objects to achievements such as academic grades. It encourages students to do the task by focusing on the outcomes rather than the process. However, intrinsic motivation develops an internal drive to engage in activities based on an individual motive, goals, values, and personal attention. It helps students to develop a passion for doing the task (Al-Fraihat, 2020).

Gamification theory is defined as the employment of video game elements in a non-gaming situation to improve students' engagement educational field. Gamification increases positive attitudes toward learning by increasing the students' motivation to

take advantage of educational material. Becirovic (2017) pointed out that motivation has been defined as the learner's desire to learn a foreign language. Some researchers, such as (Lin et al.,2017) that the school environment is very important during learning. It influences the motivation for learning the English language. Classroom management and teaching methodology influence the student's motivation.

Thus, the teacher is the principal because he is the one who creates the classroom climate to motivate students. Learning motivation can vary during the learning process and English language learning. Interstice motivation sometimes controls intrinsic motivation on the one hand, and motivation sometimes can also be changed based on the influence of peers and the environment in general. Peers have a big influence on the attitudes and values of students. Relying on Deci's &Ryan's Self-Determination theory with the aim of a better understanding of special orientation. Intrinsic orientation refers to the reason behind learning a new language that comes from an internal desire to learn, sometimes including curiosity and enjoyment. Intrinsic orientation refers to students who like melody and poetry. Gamification is a successful approach to engaging learners in the educational environment.

# **Study Methodology:**

#### **Study context:**

Many studies in the literature discuss the importance of Gamification in education. It is the use of game elements in non-gaming context.. There are several frameworks to Gamify the learning environment. This study focuses on self-determination theory. It is one of the most important theories relates to Gamified research (Denden et al.,2021). In this research, the researcher adopted two learning environments to teach English literature in face to face once and via online on the other. She decided to Gamify blended learning because many studies talked about the benefits of Gamified blended learning on English literature learning.

Table (1) Description of the used game elements a	and their honefits (Dondon et al. 2021)

Game elements	Online mode	Offline mode	
Points	Feedback to show students' perception of online learning.	Feedback to show students' perception of offline learning.	
leader board	Feedback to show students' performance in online learning.	Feedback to show students' performance in offline learning.	
badges	Feedback to show students' achievement in online learning.	Feedback to show students' achievement in offline learning.	
feedback	Feedback to show students' performance in online learning.	Feedback to show students' performance in offline learning.	
Progress bar	Feedback to show students' progression in online learning.	Feedback to show students' progression in offline learning.	
Avatar	Student can freely choose their visual representation within the Gamified course in online learning.	Student can freely choose their visual representation within the Gamified course in offline learning.	

Levels Feedback to show students' expertise in online learning. Feedback to show students' expertise in offline learning.

Chat Students can interact and collaborate to complete a given Students can interact and collaborate to complete a given goal in offline learning.

goal in online learning.

# -Learning process:

This study started in the second semester of the academic year 2021-2022 and continued to the first semester from the next year 2022-2023 at Al-Ezaia Girl's Secondary school and Anata Boy's Secondary school, Jerusalem suburbs directorate, Palestine. The study conducted in two learning environments; online and offline. There were four groups, two were experimental and two are controlled. All the four groups studied via Moodle but the experimental have been studies via game elements while the controlled group studied via Moodle but without game elements. The study occurred within 2 periods(4 months) (16 weeks) (96 classes) (6 classes a week). There were 96 sesstion.4 introducation,4 pretest, and posttest.64 classes for treatment,4 for the quiz, and 16 classes to collect the data. Treatments steps happened as follow:

# **Introduction:**

The teacher gave a brief introduction to students to tell them that they will study English literature in two different learning environments. First, she distributed the motivations' questionnaire for the whole groups. She used 8 game elements in blended learning. The researcher trained the other teachers who helped her to teach students. In addition, she has sent a consent letter for parents to agree or disagree on their children's participation in the study. After that, the researcher opened two classes on Moodle; one with game elements and the other is without game element. She provided Moodle with additional material and different activities for students to learn. Second, the teacher explained how students will learn in the two learning environments. Students will learn and interact with Moodle and the material on Moodle and in face to face. Third, the researcher trained both teachers who will help her to teach. She used Team application to train them and show them Moodle. The teacher designed poster with 8 game elements to use it in her teaching in face-to-face environment.

## -Implementation:

Students downloaded Moodle. They learn and do the task in face to face and on Moodle. They interacted in the two different learning environments. There were two classes on Moodle; one of them is English Literature with game elements while the other was English Literature 2 without game elements. In both environments, the teacher responded on students' answers and give feedback and suitable evaluation. Then, the researcher prepared the study instruments by sending them to teachers from schools and universities to modify them. She adopted motivation questionnaire from the previous literature and found the factor analysis for it to check the reliability of the questionnaire and the suitability of it for this study. She also put down a suitable interview protocol to dig deep information from the participants according to the study questions. conducted the pre-questionnaire for the first time. The teacher continues teaching by two learning environments. The

researcher divided the stories into four types. She continues teaching. After that, the teacher gave students the questionnaire for the second time. The teacher continues teaching and students continue learning through the two learning environments. The teacher conducted and distributed the questionnaire for the third

# -Comparison groups:

The teacher collects the data from the two instruments. She used the SPSS program of analysis to analyze and compare the results of the three instruments with each other.

#### -Evaluation:

The researcher completed teaching English literature through the two learning environments. She keeps giving anyone who answer correctly and interacted effectively rewards such as game elements they like.

# -Methodology design:

Mixed-method design was adopted in this study. It uses both qualitative and quantitative methods. Ismail (2020) pointed out that Mixed-method is the engine behind evidence-based outcomes. In addition, open-ended interview questions were used, too.

# -Participants

Participants in this study consisted of all students in the 11<sup>th</sup> grade in the literary stream in two secondary schools. Al-Ezaria Girl's secondary school and Anata Boy's secondary school. The number of females were (56) while the number of males were (53). They have been chosen according to purposeful sample. Both the two schools are equal in achievement and student's number.

Table (2.3) shows the number of students who will participate in the study and the different sections:

Class Section		The studen	number ts	of
Section female(experimental)	A,	28		
Section B, female(controlle	ed)	28		
Section male(experimental)	C,	27		
Section D, male(controlled	)	26		
Total		109		

Table (3.3) shows the number of study samples according to the demographic variables (gender, place of residence, and study hours)

		reside			
gender	status	City	Village	Camp	Total
	con	18	39	24	81
male	exp	24	42	12	78
	Total	42	81	36	159
female	con	12	54	15	81
	exp	9	63	15	87
	Total	21	117	30	168
	con	30	93	39	162
Total	exp	33	105	27	165
	Total	63	198	66	327

The above table shows the distribution of the participants according to the demographic variables as controlled and experimental groups.

# -Instruments:

Two instruments have been used in this study. A Motivation questionnaire and semi-structured interview with open-ended questions. Braun (2006) pointed out that using more instrument in the study achieve great validity of the study by comparing data with each other. And it provides with more deep information about the data.

## 1. Motivation:

The researcher revised the literature and adopted a suitable Motivation scale to suit the study purpose. Takahashi (2018) &Carreira(2011)said that Motivation is very important for learning. This questionnaire includes (internal External). It consisted of (30) paragraphs but after factor analysis, they became (28) the researcher deleted (29,30) because they don't saturate enough. The first part of the questionnaire is the demographic information (study hours, the place of residence). The second part of the questionnaire is paragraphs about internal and external motivation. Each statement was presented with five points Likert scale and participants asked to choose one of the given points (1=strongly agree,2=disagree,3 neither agree nor disagree,4agree,5 strongly disagree).

Table (2) the indicators of items as shown by Sari (2019)

variable	Dimensions	indicators	Items' number
	Achievement	Understanding	1-6
	Intrinsic	Assignment Good job	7-12
Motivation	Extrinsic	Join a group	13-19
	communicative	Communicating	20-22
	Instrumental	Skills	23-25
	Knowledge	education	26-28

As shown in Sari's (2019) study, indicators of motivation are achievement, intrinsic, extrinsic, communicative, instrumental, and knowledge. The above six dimensions are assured by the factorial analysis calculated by the researcher.

**-Factor Analysis:** The researcher conducted Cronbach's Alpha for the questionnaire to study the validity of it. The results came as follow: Cronbach's alpha for the motivation was (0.875). It shows that the stability coefficient of the questionnaire items is large and positive, indicating the stability of the questionnaire items.

## 3. Interview:

The researcher conducted pilot study for the interview to modify and avoid using unclear items. In addition, it saves time and money (In,2017). The researcher conducted this pre-interview with 20 students from both schools to check the suitability of the interview questions to this research. After pilot study, some questions have been modified.

**-Questionnaires' pilot study:** The researcher distributed the questionnaire to five schools from Jerusalem Suburbs directorates. The aim was to modify the unclear paragraphs of the questionnaire. Besides, to assure the suitability of the questionnaire to this study. The researcher used (234) questionnaires to conduct the factor analysis of each questionnaire.

#### 4. Interview:

An interview with (20) students, (15) females and (5) males were chosen after answering a random question put by the teacher to determine who would like to participate in the interview. It took (45) minutes. A semi-structured interview based on open-ended questions has chosen to ask the students their opinion about Gamified Blended Learning. Face-to-face interview is the best way to collect data to notice the non-verbal behavior. Participants were from different academic levels. The researcher developed a suitable interview protocol that derived from the study questions to obtain more data about students' learning outcomes, motivation, and perception. The researcher used an audio recorder and note-taking to record the interview. After collecting the data from the participants, it has been analyzed according to thematic analysis (Cooper et al., 2012). Interview questions were derived from the study questions. There were 4 main questions and 17 minor questions.

# **-Participants:**

Participants were 109 students from the 11<sup>th</sup> grade. The researcher has chosen two different schools; Al-Ezaria Girls' Secondary School and Anata Boys' Secondary School. She has chosen these schools because they are from the same suburbs and near to each other. The male teacher is ready to help the female teachers in teaching. The study sample is the same study population. The school administration follow the Ministry of Education's instruction in adopting blended learning after COVID-19.So that the teachers in this schools wanted to enhance their students' learning of English Literature. The researcher is the teacher. She is considered as one of the best English teachers. She uses blended learning and Google application in her teaching. She always encourages her students to use technology in teaching and learning.

#### -Data Collection:

A semi-structured interview was conducted with 20 students of the 11<sup>th</sup> grade. Data were recorded. Copies of consent letters were sent to parents of the participants to agree or disagree of participation in the interview. The interview was conducted within 45 minutes. The researcher developed a protocol for the interview from the study questions. Interview questions cover many aspects such as: learning outcomes, knowledge, skills. motivation, instruments, communicative, and background. Questions were checked by the University professors to check the stability of the questions.

# -Data Analysis:

The researcher read the transcript and split it into small units based on the ideas and concepts related to the research questions, numbers and labels were added for each text idea. The idea of each unit was identified: Themes were developed based on the common characteristics among the units. Related theme was categorized and organized in clusters. The researcher organized the themes and sub-themes from the study (Tarteer et al., 2022). The independent variables are (students' gender) paired sample T-test was used to compare between the dependent, before, during, after the Gamified Blended Learning. GBL A Multivariate Analysis of variance (MANOVA) factorial analysis to compare the dependent variable which are (students' achievement, preposition, motivation, study hours, place of residence). Kolmogrove-Smirnov) and (Shapiro-Wilk) to check the suitability of the statistical tests before the analysis. SPSS program used to obtain the data and reveal it. The researcher calculated Cronbach Alpha for the independent variables to check the reliability of the study instruments.

# -Validity and Reliability:

**-Validity:** The researcher checked the content validity by showing the tests to other teachers from the same school. She showed the questionnaire to some University professors from different Universities. While she conducted the pilot study with some participants to check if there are any repeated questions.

**-Reliability:** To calculate the test reliability Cronbach's Alpha was calculated. It is high and positive for the two instruments. To check the interview reliability the researcher recorded the interview then she showed the answers to the participants again.

**-Ethical Consideration:** The participants' responded will keep confidential. The researcher took the permission from the school administration. In the same time, she has sent a consent letter to the student's parents to ask their permission about conducting the interview with their children. Finally, a suitable methodology for the research has been designed.

# -Results of the Study:

# -Result of Question One:

# 2.2.4. Results of questions One:

-What is the impact of GBL of English literature on students' motivations (intrinsic and extrinsic)?

-To check the reliability of the two questionnaires, the researcher conducted Cronbach Alpha It is clear from the table that Cronbach's Alpha is high (0.84). The motivation questionnaire is (0.85) &the perception questionnaire is (0.84). This means the reliability of the data.

-There are significant differences in the questionnaires' distribution time (before and during distribution) due to (during)means for during is(3.95) and SD is(0.49). Means for before is (3.45) &SD is (0.36) except (negative statements dimensions). The result shows that before is higher, means for before (3.94) &SD (0.68) means during is (3.12) &SD= (0.73).

--There are significant differences in the questionnaires' distribution time(after and during distribution)due to (after)(in Intrinsic, Education, Pleasure, self-awareness, Joy, motivation, improvement, negative statements, self-control, usefulness, enhancement, Total motivation, Total perception, Total)dimensions. Means for during is (3.95) &SD is (0.49), while means for after is (4.18) &SD is (0.34).

-There are significant differences in the questionnaires' distribution time in all dimensions and the total marks due to (post-distribution) except (the negative statements) dimension. It shows differences due to (post-distribution). After means is (4.18) &SD is (0,34), but during means (0.45) &SD is (0.36). While the negative statement's means are (3.12 during), SD is(0.73), but the after means(3.45) SD is(1.35).

## 3.2.4. Result of Question Two:

-What is the impact of gender (male and female), study hours, and the place of residence on 11<sup>th</sup>-grade students' motivation and game elements of English literature as a foreign language?

## -The connection between results and researchers' gender:

The researcher conducted Multivariate Tests to study the connection between the students 'resultsand gender.

Table (1) shows the results of the result of the Multivariate test

Multivariate Tests					
Effect	Test Type	F	Sig.		
	Pillai's Trace	2171.14	0.00		
Intercept	Wilks' Lambda	2171.14	0.00		
	Hoteling's Trace	2171.14	0.00		
	Roy's Largest Root	2171.14	0.00		
gender	Pillai's Trace	4.24	0.00		
	Wilks' Lambda	4.24	0.00		
	Hoteling's Trace	4.24	0.00		
	Roy's Largest Root	4.24	0.00		
questionaries type	Pillai's Trace	9.69	0.00		
	Wilks' Lambda	10.42	0.00		
	Hoteling's Trace	11.17	0.00		
	Roy's Largest Root	17.65	0.00		
1	Pillai's Trace	3.16	0.00		
gender * questionaries	Wilks' Lambda	3.32	0.00		
type	Hoteling's Trace	3.48	0.00		
<b>31</b>	Roy's Largest Root	6.05	0.00		

It is clear from the table that there are significant differences in the students' responses during the questionnaire time distributions(before, during, and after). There is no connection between the results of the students and the gender. Means for before is (3.45) &SD is (0.36). Means for during is (3.95) &SD is (0.49). Means for after is(4.18), and SD is(0.34).

# The connection between the students' responses and the place of residence:-

The researcher conducted Multivariate Tests to study the connection between the student's results and the place of residence.

- -There are significant differences in the students' responses during the questionnaire time distributions (before, during, and after). There is no connection between the student's results and the place of residence. Means for before is (3.45) &SD is (0.36). Means for during is (3.95) &SD is (0.49). Means for after is (4.18) &SD is (0.34).
- -The differences between the controlled and the experimental groups and the connection between the time of distribution (pre, during, past), the gender, and the place of residence.
- -The researcher conducted Multivariate tests for the time of distribution(before,during,after),gender,and place of residence. The results showed significant differences between the study instruments' results and their dimensions (before, during, after), i.e., applying GBL. The differences do not depend on the demographic data.

# -The results of the questionnaires with the time of distribution There are significant differences between the groups' results (before, during, and after). The results do not depend on the time of the questionnaires' distribution. The means for before is (3.45)

&SD is (0.36). Means for during is (3.95) &SD is (0.49). Means for after is (4.28) &SD is (0.34).

- -The connection between the questionnaires' results and time of conducting the achievement test, and the researchers' gender.
- -The researcher conducted the multivariate test to study the connection between the time of conducting the achievement test and the researchers' gender.
- -There are differences between the study groups (before, during, and after). It shows significant differences between the results of the three groups. The results do not depend on the time of conducting the achievement test and the student's gender. The means for the male is (3.89) &SD is (0.52), while the means for a female is (3.83) &SD is (0.49).

# -The connection between the results, the time of conducting the achievement tests, and the student's gender.

There are significant differences between the groups' results groups (before, during, and after). The results do not depend on the time of conducting the achievement tests and the student's gender. The means for the city is (3.92) &SD is (0.51). The means for camp is (3.89) &SD is (0.47). The means for the village is (3.83) &SD is (0.51).

# 4.2.4. RESULTS OF THE INTERVIEW 5.2.4. FINDINGS

Semi-structured interviews were categorized based on the research questions to cover the topic of the impact of GBL English literature. The researcher read the themes carefully and read them again to confirm coding. The next step was to identify themes.

Based on thematic analysis of data from the focused group interview, participants reported that GBL enhanced their English literature learning by using two different learning environments; online and offline. The researcher identified 12 themes that facilitated participants' learning English learning through Gamified Blended Learning: it helped to enhance their learning outcomes, motivation (intrinsic and extrinsic), communicative ability, learning skills, perceptions, attitudes, and suggestions.

# 1 Research question 1-What is the effect of GBL on students' motivation (intrinsic and extrinsic)?

#### -Internal and External Motivation

Using games in teaching and learning enhances students' internal motivation, as learning is an active process. It requires motivation to both begin and continue. Thus, Gamification is used in elearning systems to motivate and engage learners (Strmecki, 2015). However, using GBL in teaching and learning English enhanced the ability to be interested in English learning. Student challenged. R said that: "GBL enhanced my internal motivation. I feel I want to learn more, gain more game elements, want to read more stories, and want to compete with others. A said: "I feel entertained while learning English Literature. It increased my internal motivation and caused a long-term effect on learning said: "it was an interesting experiment. It created competition between participants. It affected us positively said: "it enjoyed me.

I spent my time learning through Moodle instead of wasting time. English became an interesting subject. It leads to curiosity in mind". Sh added: "We patiently waited for English class to learn, enjoy, and have fun." R added: "I became an active learner, I felt pleasure, I became an independent learner, too." T&R: "Hours of study English have increased." R pointed out: "I study English in less time than before because it became easier and more fun. I can correct my mistakes by myself. I became independent".

On the other hand, using game elements in teaching and learning enhances students' external motivation. They liked to gain more game elements to learn and be the first. H said:" teacher encouraged us to gain more elements through playing and studying at the same time." R said: "I like preparation and participation in English Literature class. I collect more stars and game elements to be the winner". D&Sh said:"We challenged ourselves to answer more questions and compete with others." H added: "We have been encouraged to get more elements and more praising. I worked hard to get more badges and awards". T said: "I encouraged to read more and discover the story events to connect events. This will help me to solve my daily problems". R added: "Before using Moodle, English was complex. I spent less time studying it, but after using Moodle, I spent more time studying and reading English Literature." S said: "I study English every day than before, it was difficult and needed more time and efforts to understand.

Clearly, employing game elements in two different environments increases and enhances student motivation. This leads most of the students to increase their English study hours. She said: "I study English more than before. In the past, I did not spend much time studying English, but after using game elements, English became fun". D said: "I prepared for English class more than before, and I waited for English literature class to participate and work with my classmates." H added: "my study hours increased than before, and I comprehended more English texts." R added, "I broke the boarders between English and me, I prepare more and read more stories, I try to speak English in classroom more than before." In short, using game elements help students to challenge themselves to enhance learning outcomes.

# 2 Research question 2-What is the impact of gender (male and female) on 11<sup>th</sup>.grade student's motivation and game elements of English Literature as a foreign language?

## -Student's gender and Gamified blended learning

Some of the previous studies say that gender can affect students' perception of specific game elements. They like elements more than others. For example, females are more likely to find feedback useful than males. Males like competition said: "I like points. I felt that I challenge other classmates". The researcher asks both male and female participants about their favorite game elements. Their answers were similar to each other. Some female students like badges as well as male students; they like students; they are male students; R is a female student and both like the same game elements. They liked to chat and get badges, elevators, feedback, and points. In addition, students from the low academic level interact more with game elements than those at the high level. H said: "I liked avatar because I was competing with my classmate

Dunia." D liked avatar, and she said: "I liked avatar because I feel it increases my motivation. I liked to play more games. She said: "I like badges because I keep working with my friend Ru'a, so we challenge our ability to learn and become faster and better at learning English literature." In brief, most of the students liked the same game elements as well as their classmate (avatar, chat, badges), this means that game elements develop their ability to learn, compete, and be different. They challenged themselves to win and be the first through competition and communication with others.

Participants started to think differently. They began to appreciate English Literature. She said: "I like chat because while using it, I read, write and speak, so three of my skills enhanced" She added: "I feel confident and happy in learning English literature." D&M liked to chat, too. They said: "We liked chat because we were searching for the meaning of new words and trying to rely on what the teacher supplied us for. We felt fun and enjoyed"In fact, students liked and interacted with chat, levels, and badges because it creates competition.

# 3 Question tree: What game elements do they use in an elearning environment?

Leaderboards come first because students keep looking at the board to see who comes. Leaderboards" said: "We keep opening Moodle and check who came first. We do more and more tasks to be the winner". Leaderboard increases student's winners". Leaderboard determines to finish all the tasks to complete the levels". Then points, They determine to gain more and more points' "H," said," I was able to see my progress and others in the course. This increased my engagement". Next, indirect feedback, students keep asking their teachers to give them suitable feedback during the learning process to follow their progress while learning. "surpassed by saying: "We asked our teacher to evaluate our work."M"added:"I keep sending messages through Moodle to my teacher to remind her to give me feedback to check my answers." Students like colored-in levels; they liked the yellow feedback but not the blue or green." Levels; they challenge themselves to complete a level to give rewards from the green." Levels challenge me and do different tasks. Although I had some difficulties understanding some questions, I challenged myself to continue the levels". Progress bar comes next. They will be aware to see their progress from time to next. They were waiting to win a suitable progress bar after doing some progress in our learning". " M " added:" my purpose was to win the avatar that symbolizes victory. Thus, I tried more and more to achieve my purposes". Game elements helped students to beindependent and self-confident learners.

# 4 Question four: What game elements do they use in face to the face learning environment?

Points come first.Students challenge themselves and compete to take more points."R&M&S,"said:"We participated to gain more points to be the firstso that sometimes we work as a team."Points help students feel at home." M"said: "I feel at home when using game elements, especially points. "They asked for direct feedback to see their progress and their friends'progress face to point. "They"added:"I sometimes asked the teacher about my progress

when I saw students work hard. "After each feedback, they do more efforts to be the winners to gain points and rewards. The progress bar comes after feedback. They keep working face to face to be the first."M&R" said:"We keep working face to face more than on e-learning because we gained points and progressbar directly from the teacher. We saw all students participate and complete eachother". They work as a team to benefit from eachother. Then levels and badges; after finishing each task, they keep looking at their new level to see if they were the first or not"D&R"added:"We like gifted or badges, if we complete the level, we wait for the gift from the teacher." They interested in their learning, too. "M"said:"I like to use both of progressbar and levels to understand the task easily and do it more quickly than others."

#### -DISCUSSION

This study explores the impact of using GBL on the 11<sup>th</sup> students English Literature learning in high schools in Palestine. The findings of the interview revealed that game elements are effective methods to enhance students' learning of English literature outcomes. This result agrees with Zainuddin (2020) that Gamification is a tool to enhance the learning process. Ismail and & Sharan (2020) believe that Gamification helps to enhance students' performance and outcomes. It can be used in teaching students English Literature in blended learning. In addition, it can help students to interact with their teachers and classmates. These findings agreed with Valtonen et al. (2021) noted the potential of using Gamification in enhancing language learning.

Many experimental studies ensured that using Gamification application tools in learning English has similar findings, such as improving motivation and engagement and fostering learning (Alsadoon, 2022). The researcher taught students English Literature through two different learning atmospheres. Some of them liked the offline environment because they participated and collaborated with their classmates to interact effectively. In contrast, others liked online environments, as students pointed out, because using Moodle has many benefits, they can open Moodle at any time and place, and they can rely on their friend's opinions. Students like to learn through Moodle and face-to-face by using game elements because they think game elements enhance their learning, motivation, and perception. Park et al.(2019)stated that blended learning supported by gamification is more effective in terms of academic achievement when compared with traditional teaching, while Miller (2021) pointed out that Gamification draws users' attention concerning academic development, increasing engagement between them and motivating them. It is clear from participants' responses that they felt they need to work with others to help each other and learn values.GBL enhanced students' achievement, skills, motivation, and communication. Students use game elements in the two learning environments. They use the leaderboard in e-learning more than face-to-face because they can see their progress and friends. At the same time, they used to point more face-to-face because they wanted to gain more points to be the first or even the winners. This result agrees with Richman (2020) that using badges, a progress bar, and feedback can interest

the learning system and cooperative learning. It creates a depth of learning and makes the course more fun and understandable.

## 4.4.CONCLUSION

Using Gamification in education increases students' motivation and achievement.GBL is considered a suitable tool to enhance students' English language learning, especially Literature. GBL enhanced students' learning. They started to think better; creatively, they studied English and became independent learners. They compete themselves. In addition, it enhanced their internal and external motivation. Students started to study English much more than before. They did their best to be the first and win more points and game elements. This leads them to achieve high achievement in their learning. GBL develops their skills; they deal with comprehension and find the meaning of new words. Besides, students became interactive; it enhanced their communicative and cooperative ability to learn and communicate with their teacher and classmates. The interview responses showed that students enhance their learning, motivation, and perception after using game elements in their learning. Finally, both male and female students liked the same game elements; they liked elevator, feedback, chat, and points. They like competition and interaction in class. Both of them enhanced their English literature learning.

# - Discussions of the results and recommendations Introduction

In this chapter, the study's results will be summarized and discussed the study questions. The recommendations stemming from the findings of this study will be presented, too.

# 2. Discussion of the result of the second and third questions:

-What is the impact of GBL in English Literature on students' motivations (intrinsic and extrinsic)?

-The results in the questionnaire's distribution time(before, during):

There are significant differences in the questionnaire's time distribution (before, during) due to during. Means for during is (3.95) & SD is (0.49). Means for before is (3.45) & (0.49).

-These results indicate that using Moodle and game elements increases and enhances students' motivation and perceptions. Learning through Moodle has many benefits. To mention some, it helps teachers to change their way of teaching. When students learn in two different learning environments, their learning improves. This result agrees with Vera (2021) that using blended learning support with Gamification is more effective in terms of academic achievement when compared with traditional teaching. Park et al. (2019) that digital games make students more motivated and engaged. Besides, These results indicate that students became to recognize the importance of using GBL in learning English literature; thus, the differences in time distribution of the questionnaire came due to. Students have never been taught game elements before. When they use it in their teaching, they start to change their way of learning. They become used in online and offline environments. This result agrees with Denden et al. (2022) that using GBL creates confidence and independent learning.

- -The results at the time of the questionnaire's distribution (during, after):
- -There are significant differences in the questionnaire's time distribution (during, after) due to after in the dimensions of (intrinsic, education, pleasure, self-awareness, joy, having motivation, improvement, negative statements, self-control, usefulness, enhancement, total motivation, total perception, total). Means for during is (3.95) & SD is (0.34) while Means for after is (4.18) & SD is (0.34).
- -It is clear from the results that using Gamification enhanced students' motivation. Using game elements leads to high motivation. This led to good achievement and developed students' positive attitudes toward learning English literature. GBL enhanced students' motivation. This means that GBL is a good approach that suits teaching and learning English Literature. Both of the two questionnaires are suitable for this studying and there are strong connection between the questionnaires' dimensions and the questionnaires' paragraphs. GBL is a suitable approach for teaching English Literature.

Ahmad (2020) revealed that playing games to learn basic skills made learning English easy via media. This result agrees with Miller (2021) that Gamification improves cognitive students' engagement. Tejada (2019) revealed that academic motivation predicts the connection between student motivation and academic success. Besides, the result indicates that GBL has taught students. This means that they know the importance of game elements in teaching. Students' motivation increased; thus, the results of the time distribution became due to after. Students' perceptions increased to the importance of using GBL in teaching English Literature.

- -The results at the time of the questionnaire's distribution (before, after):
- -There are significant differences in the questionnaire's distribution time in all dimensions and the total marks due to (After) except the (negative statements) dimension. Means for before is (3.45) & SD is (0.36) while means for after is (4.18) & SD is (0.34).

The results indicate the difference in time distribution due to the after. Moodle is a very important and effective way to learn English literature. It seems from the results that students used GBL in their learning, and they liked it. So their achievement, motivation, and perception improved during the questionnaire's time distribution. This study agrees with Kalogiamakis et al. (2021)that using GBL positively affects learners' characteristics and learning outcomes. Game elements can enhance students' demographic information, cognitive information, and social characteristics.

Moreover, it agrees with Nabievan (2021) that using games in teaching help students learn more new vocabulary than the traditional way.GBL suits students' way of learning. They interacted with the two learning environments with game elements. Ultimately, they had the full experience of using Moodle to learn and appreciate English Literature's value. This result agrees with

Rahmani (2020) that teaching Literature using game elements makes the topic understandable. Besides, negative statements are negative so students didn't choose any one of them because they appreciate the value of using GBL in learning

# 3. Discussion of the result of the second question:

- -What is the impact of gender (male and female), study hours, and place of residence on 11<sup>th</sup>-grade students' motivation and game elements of English Literature as a foreign language?
- -The results of the Multivariate test to study the connection between the results and the gender.
- -The result of time questionnaire's distribution (before, during, after) and the gender:
- -There are significant differences in the student's responses during the questionnaire's time distribution. This means that there is no connection between the results of the student's responses and gender. Means for before is (3.45)&SD is (0.36). Means for during is (3.95) & SD is (0.49). Means for after is (4.18) & SD is (0.50).
- -Students have been studied by Gamified blended learning. The results of the time distribution of the questionnaire show that there are differences. GBL is a very effective approach. Students benefit from learning through it. The researcher thinks that this is the reason for the differences. In addition, students interacted with each other and challenged themselves. This is because GBL suits their learning style. This result agrees with Kalogiamakis et al. (2021) that Gamification activities can develop students' skills.

On the other hand, results show that there is no connection between gender and time distribution. Both males and females liked GBL. It is an effective approach, so they did not show any difference between them. Males have their way of learning differently from females. There are game elements that seem to be important for some students and not for others. This result agrees with Lam(2018) and Park et al.(2019)that changing game elements during learning enable students to continue the task with high motivation and a high sense of achievement. Results show that all students interacted regardless of the time distribution. Both male and female like GBL. It suits their learning styles. Both of them like game elements. They like the same game elements. Thus they interacted with each other and with game elements in the two learning environments. They showed differences just in the degree of motivation. Although results shows that GBL enhanced students' motivation, perception and achievement. That's why they didn't show differences

-The results of the Multivariate test to study the connection between the results and the place of residence:

Significant differences exist in the student's responses during the questionnaire's time distribution. This means that there is no connection between the results of the student's responses and the place of residence. Means for before is (3.45) & SD is (0.36). Means for during is (3.95) & SD is (0.49). Means for after is (4.18) & SD is (0.50).

The data showed differences between the questionnaires' time distribution but no connection between time distribution and the place of residence. Participants in this study came from the same environment. All of them suffered from weak internet web and less infrastructure. So that they do not show any difference with the time distribution. Moodle is a platform full of enrichment materials from their textbook. Thus students can open it whenever they want, day or night. It is easy to use, according to 11<sup>th</sup>-grade students. When their teacher decided to teach them and use game elements, they all participated and competed with each other because they came from the same environment and background regardless of their place of residence. They study in the same school and have the same teachers. This result agrees with Zainuddin (2020)that LMS users can gain materials from the platform asynchronously whenever they want. Moreover, it agrees with Nabievan (2021) that teachers and students can work freely in their place on their

- -The differences between the controlled and the experimental groups and the connection between the time of distribution(before, during, after), the gender, and the place of residence:
- -The result of the Multivariate test shows significant differences between the study instruments' results and dimensions. The instruments' time distribution does not depend on the demographic data. Sig value is (0.00) < (0.05).

Time distribution show differences between before, during, and after but without any connection between it and the demographic data. Both males and females liked the new learning approach, GBL, so they interacted and benefited from it. They liked game elements in the two learning environments and competed for the gain more elements. So, at each time of distribution, they achieve a higher level than before. This study agrees with Dester's (2017)study that Gamification can provide a new experience in the learning environment. In addition, students in Palestine generally, and from Jerusalem Suburbs especially, came from the same environment according to their family culture, income, education, or academic level. So they did not show any differences in the place of residences and its connection with time distribution. This study agrees with Ismail & Sharan (2020) that teachers can teach their students many skills simultaneously.GBL enhanced students' ability to learn. They became fast and independent learners. Results show that there are no differences between the time distribution and the place of residence but data shows that there are differences between questionnaires' result and the place of residence. All students came from the same culture and study in the same schools in the same suburbs and the same curriculum. So they are in the same level of knowledge.

- -The results of the multivariate test for studying the connection between the questionnaire's results and the time distribution:
- -The results show significant differences between the time distribution and the results. This means that results do not depend on the time distributions of the questionnaire. Means for before is (3.45) & SD is (0.36). Means for during is (3.95) & SD is (0.49). Means for after is (3.86) & SD is (0.50).

The result of the data indicates that there is no connection between the result of the data analysis and the time distribution. There is no connection between time distribution and the result of the demographic data because students in Palestine generally live in similar places and have similar family incomes. In addition, both males and female have their way of learning. They both adopted Moodle and game elements in their learning. The experimental and controlled groups have been learned via blended learning, once with elements and without in the other. Data shows that there are differences between the experimental and the controlled group in favor of the experimental group and time distribution in favor of during and after. This result is a strong evidence that GBL has changed students' behavior and enhanced their Literature learning. Students benefit from using GBL. This study agrees with Jassim's (2019) study that digital games and game elements were used for entertaining and facilitating the learning process and greatly valued student language. It agrees with Korkmaz (2020) that teachers and students must integrate technology into their learning because students are part of the technological generation.

- -The result of the Multivariate test to study the connection between the questionnaire's results, the time of conducting the achievement test, and the student's gender:
- -There are differences between the study groups(before, during, after). There are differences between the three groups. This means that the results do not depend on the time of conducting the achievement test and the student's gender. Sig value is (0.00)<(0.05). Means for male is (3.89) & SD is (0.52). Means for female is (3.83) & SD is (0.49).

The results indicate differences between the time of conduction of the research instruments and the student's gender. Both of male and female benefit from GBL in their learning literature. In the same time, there are differences between achievement test time distribution and the gender. Both of male and female show differences. The result came in favor of the experimental group. This means that the study achieved their aims. GBL enhanced students' achievement, motivation, and perception. Some students do not have an IT background before conducting the treatment. They also have been taught by the traditional way of teaching. When they try blended learning and GBL, they show good results. Alsadoon (2022) pointed out in his study that using Gamification enhances students' attitudes toward learning. Denden et al. (2022) added that Gamification is the solution to the learning outcomes. Students of this time are called the digital generation, so they like IT and any way of learning that has a connection with it. They achieved well and showed differences in the time of distribution. This means that they like GBL and like to learn English Literature. This result agrees with Ahmad (2020). Using game elements in education has motivated researchers to look at different game elements that can stimulate learning engagement in non-gaming

-The results of the Multivariate test to study the connection between the results, the time of conducting the achievement test, and the student's gender:

-There are significant differences between the results of the three groups (before, during, and after). This means that the results do not depend on the time of conducting the achievement test and the student's gender. Means for the city is (3.92) & SD is (0.51). Means for village is (3.83) & SD is (0.51). Means for camp is (3.89) & SD is (0.47).

Data show that this study achieved its goal. The researchers aimed to study the impact of GBL on students' English literature learning. The study results show differences in conducting the questionnaire and the achievement test, while students do not depend on that. This means that GBL changed students' behavior toward learning the English language via GBL. In addition, all students came from the same place, culture, and environment. They all show differences in their achievement test in favor of the experimental group. The place of residence doesn't affect their achievement. They have the same culture, level, and income. In addition, they have the same level of living. They also study in the same suburbs and the same curriculum and they suffer from lack of IT infrastructure. This resultagrees with Dichev et al.(2017)that game elements lead to positive attitudes towards the course. It increases creativity and helps achieve course goals. This is a big indicator of the usefulness of using GBL in learning. This result agrees with Korkmaz (2020) & Wright (2017) that game elements are a way to draw people's attention. It developed students' learning skills. It also leads to effective participation.

# 2.5. Cross points between study instruments

GBL increases students' learning outcomes, achievement, motivation, and perception. It enhances students' learning skills in reading, writing, listening, and speaking. In addition, their attitudes, cooperation, motivation, and interaction. In addition, it fosters attitudes toward learning. The results of the study instruments distributions showed that GBL enhanced students' attitudes toward English Literature learning. They became active learners and used two different learning environments in their learning. Using GBL changes students' learning environment into joy and creative environment. Using blended learning in teaching can achieve Gamification goals in learning the English language by gaining and winning more points. This lead to good motivation (external & internal), achievement, and perceptions. Their learning became interactive. Game elements made the learning process interesting and fun. Game elements created depth in the learning of the players. They structured their minds and thought creatively. In addition, both males and females interacted in the two learning environments. Females have an ICT background. They learned ICT before they could walk. At the same time, males did not have any ICT background. However, after GBL, they interacted and participated in their learning. As the result shows, online and offline integration will not make the learning process dismal. Each game element has its benefit in the learning process, even the two learning environments; online and offline. Participants like Moodle. They competed with each other to learn and win. Their learning became fun and beneficial.

# 3.5. Summary of the study

In order to identify the effect of Gamification on education, this study was conducted to investigate the Impact of Gamification

blended learning on Enhancing English literature learning. Five research questions guided the qualitative study and provided the study's framework. The researchers' questions explore the effect of GBL on students' learning outcomes and attitudes. Four research questions guided the qualitative study. The questions explore the impact of GBL on students' learning outcomes, motivation, and perceptions. It also studies the impact of some demographic variables (gender, place of residence) on students' study hours, motivation, and perception. The instrumental design was used to gather data with questionnaires, achievement tests, and interviews with some government school students in the 11th grade. Analysis revealed 12 themes. Participants were chosen purposefully. The researcher is their English teacher. The differences between the experimental and the controlled group came in favor of the experimental in post-test. Then, the differences between the time distribution of the questionnaires came in favor of during and after. Next, the result of the interview showed 12 main themes assured that GBL enhanced many skills according to English language learners. Finally, there are cross points and very big similarities between the result of the study instruments. This means that the study instruments are valid and reliable enough to suites this study. Above all, there is no doubt that using GBL enhanced students' English Literature Learning.

#### 1.5. Study limitations

This study is limited to investigating the impact of GBL on enhancing English language learning as perceived by the students in the eleventh grade.

## 1.5.1. Time

The study was conducted within 2 periods (4 months) (16 weeks), (96 classes), (6 classes a week) from the second semester of the academic year 2021/2022 to the first semester of the school year 2022-2023. The experiment was conducted with the participants in 96 sessions. There were 4 classes introduction., 4 for the pretest, and four for the post-test. There are 64 classes for the treatment and 4 for the quiz (post-test). The researcher took 16 classes to gather the data briefly from the questionnaire spread three times (before, during, and after the treatment) and four classes for obtaining deep information from the interview. In addition, the school has its learning system as implemented in the curriculum or syllabus. Thus, the teacher used her lesson plan to teach the Novels" the call of the Wild"&"The Norwood Builder" using Gamified blended learning.

## 1.5.2. Context of the Study

This study was conducted in the eleventh grade at Ezaria Secondary school and Anata Boys' secondary school in Jerusalem, Palestine. The researcher chose this school as the object of her research for some reasons: First, the researcher is one of its staff; she teaches the English language. Second, the girl's school is located near a boys' school, which enables the teacher to reach the boys' school easily and connect to their teacher because the researcher wants to investigate gender as an independent variable. Third, the teacher of this school cooperates with the researcher. Fourth, there is almost the same number of students and sections as the researcher's school. Fifth,

the researcher got an agreement from the administration to conduct the treatment in the school.

#### 1.5.3. Locative Limitations

This study covers students of the 11<sup>th</sup> grade in two secondary schools from Jerusalem Suburbs Directorates; Al-Ezaria Girl's Secondary School and Anata Boy's Secondary School.

#### 1.5.4 Human limitations

This study consists of males and females from the 11<sup>th</sup> grade in two secondary schools.

#### 1.5.5 Topical Limitations

This study investigates the impact of GBL on Enhancing English Language learning.

#### 1.5.6 Methodological Limitations

The result of this study will apply to a population similar to the population of the 11<sup>th</sup> graders in the West Bank.

#### 4.5. Recommendations

In light of the result of the study, the researcher recommends the following:

#### -Further research

1. Study students' attitudes towards using GBL in education.

#### -Teachers

- 1. Teachers should understand the importance of English Literature, so they should use new teaching ways to teach it to their students.
- 2. Teachers should help students to interact with game elements in online and offline learning environments.

#### -Stakeholders

- 1. It is necessary to encourage and train the teaching staff on using virtual learning environments such as Moodle and game elements in their teaching.
- 2. Encourage teachers to use game elements in their teaching.

#### References

- 1. Alsawaier, R. S. (2018). The effect of gamification on motivation and engagement. The International Journal of Information and Learning Technology, 35(1), 56-79
- Cuervo-Cely, K. D., Restrepo-Calle, F., & Ramírez-Echeverry, J. J. (2022). Effect of gamification on the motivation of computer programming students. Journal of Information Technology Education: Research, 21, 001-023.
- Cespón, M. T., & Lage, J. M. D. (2022). Gamification, Online Learning and Motivation: A Quantitative and Qualitative Analysis in Higher Education. Contemporary Educational Technology, 14(4), ep381.
- 4. Chans, G. M., & Portuguez Castro, M. (2021). Gamification as a strategy to increase motivation and engagement in higher education chemistry students. Computers, 10 (10), 132.