

جامعة المنصورة كليسة التربية



A Gamification Program to Enhance Writing Skills of EFL Secondary Stage Students and their Motivation towards Learning these Skills

Вy

Samah Ahmed Maghawry Ahmed EFL Instructor & Teacher Educator

Supervised by

Dr. Aly Abdul-Samea Qoura

Professor of Curriculum & Instruction (EFL), Faculty of Education,

Mansoura University

Dr. Samah Rizk Hassan

Associate Professor of Curriculum & Instruction (EFL), Faculty of Education,

Mansoura University

Journal of The Faculty of Education- Mansoura University No. 116 – Oct . 2021

A Gamification Program to Enhance Writing Skills of EFL Secondary Stage Students and their Motivation towards Learning these Skills

Samah Ahmed Maghawry Ahmed

Abstract

This study investigated the effectiveness of using a gamification program to develop first secondary stage students' EFL writing skills and increase their motivation towards learning writing. Participants of the study were two groups of first year secondary students at Salem Madian Official Language School (one experimental and one control). Instruments of the study were an EFL writing test and a motivation scale towards learning writing skills. Validity and reliability of the instruments were calculated and found to be relatively reasonable, then the pre-test and scale were administered to both groups. Homogeneity was established between the two groups. After that, the experimental group was taught based on the gamification program and the control group received regular instruction. Post-test and scale were administered to both groups after the program has been applied. A t-test was used to compare the mean scores of students on the pre-and the post application of the instruments. Eta Square was also used to determine the effect size of the treatment program. Results showed that experimental group outperformed the control group. This indicated that the treatment program had a good impact on developing EFL writing skills and increased the motivation of the participating students. Therefore, it is concluded that using gamification is effective in developing EFL writing skills for secondary stage students and increase their motivation towards learning writing.

Key words: Gamification- EFL Writing Skills - Motivation

Introduction:

Being aware of a foreign language is essential as it helps in finding various opportunities. This is completely true about English language especially because it is a global language (Crystal, 2012). People all over the world consider learning English is a fundamental necessity nowadays. Thus, educators should attempt new approaches of teaching English language.

Productive skills of English language (Speaking & Writing) are amongst the hardest skills to enhance while learning a foreign language. Writing is one of these productive skills that are necessary for the students. Writing was defined by Graham, Gillespie, and Mckoewn (2013) as a directed, self-sustained goal which includes a cognitive activity requiring skillful management of the environment, the constraints of the topic, the intention of the writer, and the processes, knowledge and skills involved in composing. According to Widodo (2006) as cited in (El-nagar, 2016), students face difficulty in writing due to the need to generate and organize ideas using an appropriate choice of vocabulary, sentence structure, and paragraph organization. Therefore, in order to develop appropriate compositions, students should practice in a motivating environment. A number of studies investigated the improvement of the writing performance (i.e., El-nagar, 2016; Zhang et al., 2017; and Eid, 2020.... etc).

EFL learners face some problems and difficulties while learning writing skills. Many studies have mentioned these difficulties. For instance, cognitive process concerning organizing thoughts, generating new ideas and translating these ideas into meaningful sentences could be a problem for students (Richards & Renandya, 2003). Finding appropriate vocabularies and applying grammar correctly while writing coherently or cohesively is another difficult problem for learners. Additionally, low self-efficacy, lack of trust, anxiety and fear of failure can affect the ability of the students to write well. Having low motivation to write is also a difficulty that faces students in enhancing their EFL writing skills (Allen, Crossley, Snow & McNamara, 2014).

Shcunk, Pintrich, and Meece (2010) considered motivation as a psychological process that initiates and continues the goal directed behaviors. Wery and Thomson (2013) believed that motivation in the classroom is the key to success for students' language development. It is important to motivate students intrinsically and extrinsically for achieving better results. Facilities provided by the information, communication and technology (ICT) have helped educators in their teaching through applying more innovative and enjoyable ways of teaching English language to the learners.

One of these new ways is gamification. Deterding (2011) and Werbach and Hunter (2012) defined gamification as the use of game elements and game-design techniques not only in non-game contexts but also in empowering and engaging learners with motivational skills towards learning approach achieving a relaxing atmosphere. According to Muntean (2011), gamification combines the two types of motivation (intrinsic & extrinsic). For example, using extrinsic rewards like levels, points, and badges to improve engagement while intrinsically motivating students towards the achievement, mastery, autonomy, and sense of belonging.

Using Gamification in education has many fruitful sides as the gamification environment provides rich contextual cues to reinforce learners' perceptions of language input and lessens the cost of making errors for the learners (Sombrio et al., 2014). Furthermore, it emphasizes the concept of 'freedom to fail' and encourages learners to feel comfortable to take risks.

It is clear now that gamification is regarded as an innovative strategy that currently gains enormous attention. Based on the previous discussion, students should be motivated inside the classroom to support their writing skills through more innovative ways. Therefore, the researcher used gamification as an innovative and attractive way that can increase the level of the students' in EFL writing skills as well as their motivation towards learning these skills.

Review of Literature and Related Studies:

- Writing Skill:

Nature and importance of writing skill:

Writing is very essential for all EFL learners. Many scholars have defined writing. For instance, writing tasks are the critical tools for intellectual and social development. It is also the process of documenting experiences and thoughts and a means to further learning, thinking and discovery (Burnning and Horn ,2000). Writing is additionally considered as one's ability to produce written language and translating ideas into written texts. It is a mental work that combines process and product involving synthesizing ideas, thinking about how to express them freely, and organizing them into sentences or paragraphs that will be clear to readers (Graham, 2003).

Moreover, Boscolo and Hidi (2006) regarded writing as a complex activity involving cognitive, metacognitive and affective processes and demanding the mastery of different types of knowledge. Polkinghorne (2013) described writing as a major cognitive competence for communicating, organizing, and developing thoughts and ideas. With writing, students can express, impress, influence, describe, create, report, illustrate thoughts, put emotion into words, express attitudes and find answers. Writing takes time, patience, and love of the written word.

Importance of writing skills is greatly pointed out through literature. For example, writing is a linguistic mean of communication between students, a source of enjoyment and fun, a powerful communication tool and a medium for expression. Additionally, writing improves language acquisition, develops critical thinking and helps learners to express themselves freely. Writing also stimulates learners' attention on accurate language use and reinforces language. It also makes language learning more active, authentic and adequate (Leki, 2003; Harmer ,2004; Shanahan, 2004).

Similarly, Graham and Perin (2007) added that writing can enhance the structure, idioms, and grammar which help learners to be more effective writers. Writing skills is also a way for people to communicate, socialize and share information all over the world. Isleem (2012) indicated that writing helps students express their creativity, develops their concepts, helps them to take risks, to explore their ideas and to express themselves well.

Difficulties of Teaching Writing inside the Classrooms:

Some challenges face students while writing in English. These challenges are like failing to write a comprehensible piece of writing. Also, anxiety, low motivation, lack of self-esteem, self-confidence, and self-efficacy affect the students' ability to write well. Additionally, including a cognitive process such as organizing thoughts, generating new ideas and translating these ideas into meaningful sentences or texts can be hard for students (Maltin, 2005). In a similar way, Bruyse (2006) asserted that lacking the appropriate vocabulary, the right coherent and cohesive style and the correct grammar can be a difficulty for the writers.

Lacking motivation towards writing is another challenge for students. Motivating students and avoiding boredom inside classrooms is necessary (Hanus & Fox, 2015). Additionally, writing is ignored in the educational system. In traditional writing classrooms, teachers sometimes spend time on explaining writing skills in class and limit the class time spent on the actual writing (Cockrum, 2014; Bergmann et al., 2015). In our Egyptian context, students face these problems while writing like lacking motivation, lacking self-confidence and little vocabulary.

- Motivation:

Nature and Importance of Motivation:

Motivating students towards learning is so essential in our classrooms. Without motivation, students will not be able to achieve goals in the desired way. Through literature, motivation is seen as the process of acquiring a need, a want, an emotion, or an impulse that encourages individuals to take actions. It is the key that actively engage students in their learning process (Prensky, 2003). According to Shcunk, Pintrich, and Meece (2010), motivation is the psychological process responsible for initiating and continuing goal directed behaviors. It is an essential factor of acquiring a successful language and a concept that explains continuity in behavior, situations and efforts to achieve a specific goal. In education, motivation is considered a key determinant of learning. It is used to explain the attention and effort students dedicate to particular learning activities (Brophy, 2013).

Motivation in EFL classes is indispensable for successful learning. It has a great importance. For example, motivation helps students to learn effectively, retain information, and participate. Moreover, motivation helps in understanding why and how individuals learn something. Realizing the relationship between motivation and its effect on language acquisition helps teachers do their best to develop learning. Because successful learning is linked to the learner's passion, teachers have to find ways to connect their teaching to this passion (Anwaruddin,2013; Loima, & Vibulphol, ,2016).

- Gamification:

Nature and Importance of Gamification:

Gamification has recently generated an increased attention due to its ability to influence behavior. Many scholars through literature have defined gamification. For example, Deterding (2011) defined gamification broadly as the use of game elements, game design techniques and mechanics in nongame contexts to engage people and solve problems. Also, Lee & Hammer (2011) stated that gamification is a strategy to infuse ordinary activities or processes with principles of motivation and engagement based on the gaming concept, game mechanics, dynamics, and frameworks to promote desired behaviors. In a similar way, gamification is using game design elements and game mechanics in non-game contexts in order to engage people, solve problems and increase students' motivation and engagement (Marczewski, 2013). Gamification does not mean turning learning into a playful joke, instead it is challenging and focused on learning through taking motivational mechanics from games such as badges, leaderboards, levels and points. Besides, it is using some gaming principles like feedback and interactivity and applying them in nongame contexts (Stott & Neustaedter, 2013). Moreover, gamification is seen as the practice of making activities more interesting and enjoyable through making these activities like games to motivate students while learning a new subject. Gamification has one defining quality which involves the use of game elements, such as incentive systems, to motivate players to engage in a task they would not find attractive (Plass, 2015).

Using gamification in education is very important and has many fruitful sides. For example, it offers rich contextual cues to reinforce learners' perceptions of language input and lessens the cost of making errors for the learners. Gamification helps students to feel comfortable, take risks and fosters the concept of "Freedom to fail" (Muntean, 2011). Gamification provides ongoing assessment and feedback. Learning by doing, being autonomous, learning on their own and following progress are among the benefits of gamification. Also, it is suitable for all types of learning styles. Students feel motivated to attend and participate in gamified classes (Barata et al., 2013; Goehle, 2013).

More pros of gamification lie in the clear and well-defined actions and goals. It also increases fun, enjoyment and can create more relaxed atmosphere, a more visible learning progress and a greater ownership of learning. Gamification also improves students' language proficiency and increases language development (Kiryakova et al, 2014). Gamification can enhance the motivation of the students that positively influence students' beliefs and attitudes towards learning and support learning process (Dicheva et al,2015). Increased fun, more relaxed atmosphere, more visible learning progress, greater ownership of learning and discovering extrinsic and intrinsic motivators that can make learning more engaging occur through applying gamification in education. (Leaning, 2015).

Studies Related to Using Gamification in Enhancing Writing Skills and Increasing Motivation:

Many studies have investigated the impact of gamification on the level of the students in their EFL skills especially writing and their motivation towards learning writing skills. For example, Bustard et al. (2011) used the system of awarding points to students for activities such as: class attendance, contribution to tutorial questions, work of high standards, completion of quizzes, group assignment, answering of exam revision questions, and group presentations. This gamified e-learning system aimed at achieving some engagement factors like fun, social, identity, structure and feedback. The gamified system was found to improve students' learning outcomes in terms of pass rates achieved and their motivation towards learning.

In addition, Majdoub (2016) used an online gamified program called classcraft in order to promote high school ESL learners' motivation and engagement. Participants of the study were eight students at grade 10. Students experienced gamification elements such as rewards, challenges, points and the sharing of their progress online. A mixed method approach was used where quantitative and qualitative data were collected, analyzed and interpreted. Results showed that gamification elements design had a very positive impact on the participants leading to a potential increase of their motivation and engagement.

Machajewski (2017) conducted a case study to investigate the impact of gamification on EFL performance and motivation among STEM students. Participants of the study were 501 students enrolled in 4 semesters and 15 courses. Students used their personal devices in active learning with the gamification application "Kahoot" peer-response system. Results indicated that students had developed their EFL skills in general, had a greater level of motivation towards learning and increased their learning autonomy.

Furthermore, Mercedes, (2017) studied gamification as a tool to enhance motivation and participation towards writing skills. Participants of the study were 42 first secondary stage students in a high school in Madrid, Spain. Information was collected through observations, diaries and questionnaires. After being trained through the gamification program, students were asked to write two different writings or compositions. One of them was a travel diary and the other one was a story. Students used the application of Kahoot to develop vocabulary and grammar structure besides using story cubes to conduct the pre-writing tasks. Results of the study showed that students had developed their writing skills and increased their motivation towards writing after being trained through the gamification program.

Previously mentioned studies highlighted the effectiveness of gamification in improving EFL writing skills and increasing their

motivation towards learning these skills. This reflects that using technology helps students' progress positively.

Pilot Study:

In order to determine the students' competence in writing skills, the researcher administered an EFL pilot writing test and an EFL pilot writing test to (30) first-year secondary stage students. A motivation pilot study was also conducted to find the motivation level of the students towards learning these skills. The following tables show the results.

Writing sub-skills	Questions No.	Mean	%
Structure	4	1.8	45.5%
Cohesion	4	1.6	40%
Coherence	4	2.0	50%
Vocabulary	4	1.5	55%
Mechanics	4	2.2	37.5%
Total	20	9.1	45.5%

Table (1): Pilot Study Writing Skills' Test Results

Results in table (1) showed that the students' mean score in each writing sub-skill is not at the desired level and needs to be enhanced as the total mean score of the skills is 9.1 and the total percentage of the skills is 45.5%.

Table (2): Pilot Study Motivation Scale Results

Responses of Scale Items	Number of Students	%
Strongly Disagree	6	20%
Disagree	10	33.4%
Neutral	9	30%
Agree	5	16.6%
Strongly Agree	0	0%

Results shown in table (2) asserted that EFL secondary stage students were not highly motivated in learning EFL writing skills.

Statement of the Problem:

Based on the researcher's observation, review of literature and the results of the pilot study, the research problem was stated as follows " EFL first year secondary stage students have weaknesses in their writing skills and lack motivation towards learning writing skills". Consequently, it became essential to find a solution for this problem, so a proposed

gamification program was designed to enhance first year secondary stage students' writing skills and their motivation towards learning these skills

Research Questions:

This research attempted to answer the following questions:

To what extent can the gamification program contribute to enhancing EFL writing skills of first year secondary stage students and their motivation towards learning writing skills?

This main question led to the following sub- questions:

- 1- What are the features of the gamification program for enhancing first year secondary stage students' EFL writing skills and their motivation towards learning these skills?
- 2- What is the effectiveness of the gamification program in enhancing first year secondary stage students' EFL writing skills?
- 3- What is the effectiveness of the gamification program in enhancing first year secondary stage students' motivation towards learning EFL writing skills?

Hypotheses:

This research attempted to verify the following hypotheses:

- 1- There is a statistically significant difference at (0.05) level between the mean scores of the control group and that of the experimental one on the post writing skills test favoring the experimental group.
- 2- There is a statistically significant difference at (0.05) level between the mean scores of the experimental group pre-writing skills test and that of the post writing skills test favoring the post-test.
- 3- There is a statistically significant difference at (0.05) level between the mean scores of the control group and that of the experimental one on motivation scale towards learning writing skills favoring the experimental one.
- 4- There is a statistically significant difference at (0.05) level between the mean scores of the experimental group pre administration of the motivation scale towards learning writing skills and that of the post administration of it favoring the post one.

Purpose:

The present research aimed at enhancing EFL writing skills of first year secondary stage students and their motivation towards learning writing skills using a gamification program.

Significance:

The present research was hoped to be significant for students, teachers, curriculum designers and researchers for the following reasons:

For Students:

- Providing EFL students with activities and opportunities to enhance their writing skills inside the classroom.
- Enabling students to use more communicative, cooperative, collaborative and competitive active learning strategies.
- Creating a motivating environment for students towards learning EFL writing skills through using gamification.
- Encouraging learner- centric, dynamic and sustainable learning.
- Introducing a mixture between education and entertainment which added fun to learning and made learning enjoyable for students.

For Teachers:

- Providing a gamification program that can be utilized in teaching English as a foreign language and as a guide for teaching other subjects.
- Directing the attention of teachers and supervisors to integrate gamification into classroom activities.
- Changing teachers' role to a guider and a facilitator in the educational process.
- Raising the importance of activating students' motivation by teachers to achieve better results.

For EFL Curriculum Designers:

- Raising the importance of EFL writing skills. Thus, curriculum designers should rethink and modify the teaching methods and activities to enhance EFL productive skills more.
- Stressing the importance of integrating technology while designing activities.
- Incorporating numerous activities based on gamification that course designers can adapt while designing courses for all educational stages especially in the era of online learning.

For EFL Researchers:

- Providing researchers with some insights into improving EFL writing skills through an innovative way of teaching (gamification).
- Attracting the researchers' attention to dig deep into the problems facing

students while writing in English using other strategies and more technology.

- Stressing the necessity of finding more motivating and encouraging methods for developing EFL writing skills.

Delimitations:

This research was delimited to:

Participants: 50 Male and female first year secondary stage students.

Place: Salem Madian Official Language School, Dekerness, Dakahlia.

Time: First Term of the academic year 2020/2021

Instructional Context: A number of writing skills namely; (structurecohesion- coherence- vocabulary – mechanics of writing) suitable for the participants of the study and as prescribed in the official ministry teacher's guide of the textbook (New Hello; Secondary 1).

Methodology:

Participants:

Fifty students at first secondary stage participated in this research. Two classes were randomly selected from Salem Madian Official Language Schools, Dekerness City, Dakahlia governorate in the academic year (2020-2021) at the first semester. The participants were divided into two groups: one is experimental which was taught via the gamification program and the other one is control which was taught via the regular method. Each group consisted of 25 students aged at 16-17 years old. All students have started learning English since KG level. Therefore, the participants of the study were homogenous to a great extent as they come from almost the same socio-economic background. Follow up observation was conducted during the study for recording students' several trails in answering the exercises and their changing degrees to the best.

Design:

This research adopted the quasi- experimental design. Participants were divided into two groups: experimental group that was taught through the gamification program to improve writing skills and their motivation towards learning these writing skills and a control one that studied according to the regular method based on the teacher's guide. The pre-post EFL writing tests and the motivation scale towards learning writing skills were administered to both groups before and after the program. The results of the pre-post EFL writing tests and the motivation scale were analyzed by using a t- test for independent samples.

Instruments:

The present research used the following instruments:

- 1- A pre- post EFL writing skills test with an accompanying rubric for scoring it designed by the researcher.
- 2- A pre-post motivation scale towards learning EFL writing skills adapted from Keller (1987).

Operational Definitions of Terms:

Gamification:

For the purpose of the current research, gamification was operationally defined as follows: using game design elements and mechanisms within non-game-related learning contexts in general and in the field of English language teaching in particular to maximize pleasure and participation and to enhance the desired use of gamification to enhance secondary school students' level in English writing skills and their motivation towards learning these skills.

Motivation:

Motivation was operationally defined as: the internal ability of learners to motivate themselves as well as external motivations for students using the gamification program to overcome the obstacles and difficulties faced in learning English skills, especially writing skills.

Writing skills:

In this research: Writing is operationally defined as the ability of learners to think and translate these ideas in the form of writings in an easy, simple and enjoyable way for the students.

Results and Discussion:

The results of the research are statistically analyzed in terms of its hypotheses and they are discussed in the light of the theoretical background and related studies. Research results were reported as follows:

Testing the first hypothesis:

The first hypothesis stated that "There is a statistically significant difference at (0.05) level between the mean scores of the control group and that of the experimental one on the post writing skills test favoring the experimental group".

In order to test this hypothesis, a t-test was used. Results are presented in table (3):

Table	(3):	Comparing	the	control	and	the	experimental	group
	perfo	ormance on th	e pos	st adminis	stratio	on of	the writing skil	ls test

VARIABLE S	The group	N.of cases	Means	S.D	Df	T.Val ue	Sig.
Structure	Control	25	7.32	1.376	48	-3.106	0.01
	Experimental	25	8.56	1.446			Sig.
Cohesion	Control	25	6.76	0.879	48	-3.761	0.01
	Experimental	25	7.88	1.201			Sig.
Coherence	Control	25	7.08	1.038	48	-2.938	0.01
	Experimental	25	7.88	0.881			Sig.
Vocabulary	Control	25	7.96	1.136	48	-3.569	0.01
	Experimental	25	9.00	0.913			Sig.
Mechanics of	Control	25	8.32	1.282	48	-3.075	0.01
writing	Experimental	25	9.28	0.891			Sig.
All Test	Control	25	37.44	4.501	48	-4.083	0.01
	Experimental	25	42.60	4.435			Sig.

Table (3) reveals that all t-values were statistically significant at the 0.01 level. This means that there were significant differences between the experimental and the control groups in the post- administration of the EFL writing skills test. These differences could be attributed to the implementation of the gamification program. Therefore, the first hypothesis of the research was verified and accepted.

Testing the Second hypothesis:

The second hypothesis stated that "There is a statistically significant difference at (0.05) level between the mean scores of the experimental group pre-writing skills test and that of the post writing skills test favoring the post-test".

The t-test for dependent samples was used to compare the difference between the mean score of the experimental group students in the EFL writing skills test before and after implementing the gamification program. Table (4) shows the results.

the pre and post administrations of writing skills test									
VARIABLES	The group	N.of cases	Means	S.D	Df	T.Value	Sig.		
Structure	pre – test	25	5.40	2.041	24	-11.248	0.01		
	post – test	25	8.56	1.446			Sig.		
Cohesion	pre – test	25	4.80	1.581	24	-15.452	0.01		
	post – test	25	7.88	1.201			Sig.		
Coherence	pre – test	25	5.04	1.567	24	-12.422	0.01		
	post – test	25	7.88	0.881			Sig.		
Vocabulary	pre – test	25	5.96	1.241	24	-14.905	0.01		
	post – test	25	9.00	0.913			Sig.		
Mechanics of	pre – test	25	6.16	1.650	24	-12.626	0.01		
writing	post – test	25	9.28	0.891			Sig.		
All Test	pre – test	25	27.36	7.094	24	-20.348	0.01		
	post – test	25	42.60	4.435			Sig.		

 Table (4): Comparing the performance of the experimental group on the pre and post administrations of writing skills test

Results in table (4) reveal that the mean score in the post administration of the writing skills test was greater than that of the pre administration in all EFL writing skills. The t-test value was significant at the 0.01 level for all the writing skills and the total use of all writing skills. Thus, the second hypothesis is accepted and verified.

Testing the third hypothesis:

The third hypothesis stated that "There is a statistically significant difference at (0.05) level between the mean scores of the control group and that of the experimental one on motivation scale towards learning writing skills favoring the experimental one".

In order to test this hypothesis, a t-test was used. Table (5) indicates the results.

Table (5): Comparing the control and the experimental groups on the
post administrations of the motivation scale towards learning
writing skills

VARIABLES	The group	N.of cases	Means	S.D	df	T.Value	Sig.
Attention	Control	25	20.20	2.121	48	-6.495	0.01
	Experimental	25	24.32	2.358			Sig.
Relevance	Control	25	21.52	2.663	48	-5.038	0.01
	Experimental	25	25.00	2.198			Sig.
Confidence	Control	25	20.24	2.697	48	-7.519	0.01
	Experimental	25	24.48	0.823			Sig.
Satisfaction	Control	25	25.88	2.505	48	-8.104	0.01
	Experimental	25	30.40	1.225			Sig.
All Scale	Control	25	87.84	7.128	48	-9.447	0.01
	Experimental	25	104.20	4.916			Sig.

Results in table (5) indicated significant differences between the experimental group and the control group's mean scores in all the sub skills and the total score on the post administration of the motivation scale towards learning writing in favor of the experimental group. These results confirm the third hypothesis and can be attributed to the gamification program.

Testing the fourth hypothesis:

The fourth hypothesis stated that "There is a statistically significant difference at (0.05) level between the mean scores of the experimental group pre administration of the motivation scale towards learning writing skills and that of the post administration of it favoring the post one".

A T-test was utilized to test it addressing the differences between the mean scores of the experimental group pre administration of the motivation scale towards learning writing skills and that of the post administration of it. Table (6) indicates the results.

Table (6)	: C	omp	aring	the p	performance of	f the e	exper	imental grou	ip on
t	he	pre	and	post	administration	ns of	the	motivation	scale
t	ow	ards	learni	ing wi	riting skills				

VARIABLES	The group	N.of cases	Means	S.D	Df	T.Value	Sig.
Attention	pre – test	25	18.36	1.221	24	-11.728	0.01
	post – test	25	24.32	2.358			Sig.
Relevance	pre – test	25	21.00	2.799	24	-6.325	0.01
	post – test	25	25.00	2.198			Sig.
Confidence	pre – test	25	20.08	1.498	24	-14.152	0.01
	post – test	25	24.48	0.823			Sig.
Satisfaction	pre – test	25	25.04	1.859	24	-12.310	0.01
	post – test	25	30.40	1.225			Sig.
All Scale	pre – test	25	84.48	4.254	24	-18.845	0.01
	post – test	25	104.20	4.916			Sig.

Results in table (6) showed that there are statistically significant differences between the mean scores of the experimental group in the prepost administration of the motivation scale towards learning writing in all its sub-skills and the total score of the scale favoring the post administration (the highest average). These results are compatible with the fourth hypothesis and confirm its validity.

Conclusion:

Based on data analysis, discussion and results, it could be concluded that using gamification program resulted in enhancing English writing skills of first year secondary stage students and improved their motivation towards learning these writing skills. These results are clear as T- values were highly significant at 0.01 level. Also, results of the experimental group in the post tests and scales were better than those of the pre-tests and better than the results of the control group

These encouraging results were attributed to the designed gamification program and also to the positive impact of the learning environment, the autonomous learning strategy and most importantly; the learning-centered approach. Moreover, the varieties of exercises, games and quizzes included in the program were so helpful and provided learners with enough practice to improve their writing significantly. Additionally, collaborative activities and communicative pair and group work were so effective in the students' success and raised their motivational level towards learning writing skills. In brief, gamification offered a better learning environment for the students, activated shy students, developed their writing skills, increased students' motivation towards learning and increased interaction.

Suggestions:

This research suggested the following points:

- Conducting a follow-up study on this research in order to see whether gamification has the same influence on other language skills (listening and reading).
- Administering gamification learning programs on different stages (i.e., primary and preparatory).
- Replicating the experimental treatment on larger samples.
- More emphasis on producing materials that suit students' abilities and levels is needed.
- Further research can be conducted on the development of writing skills as an important skill in EFL education.
- Further researches can be conducted to measure the effect of gamification in EFL contexts on self- efficacy, foreign language anxiety, language aptitude and various attitude aspects.

References:

- Allen, L. K., Crossley, S. A., Snow, E. L., & McNamara, D. S. (2014): L2 writing Practice: Game Enjoyment as a Key to Engagement. Language Learning & Technology, 18(2), 124-150.
- Anwaruddin, S. M. (2013). Web 2.0 and Language Learners' Motivation: An Action Research Study. The Canadian Journal of Action Research, 14(1), 5-68.
- Barata, G., Gama, S., Jorge, J., & Gonçalves, D. (2013). Improving Participation and Learning with Gamification. In Proceedings of the First International Conference on Gameful Design, Research and Applications (pp.10-17). New York, NY, USA: ACM.
- Bergmann, J., Sams, A., & Gudenrath, A. (2015). Flipped learning for English instruction. International Society for Technology in Education.
- Boscolo, P., & Hidi, S. (2006). Motivation and Writing. Handbook of Writing Research, 144-157.
- Brophy, J. E. (2013). Motivating students to learn. New York, NY: Routledge.

Brunning, R, & Horn, C. (2000). Developing Motivation to Write. Educational Psychologist, 35(1),25-37.

- Bustard, DW, Black, MM, Charles, T., Moore, AA, McKinney, MET, & Moffett, P. (2011). GEL: A Generic Tool for Game-Enhanced Learning. Paper presented at the Proceedings of International Conference on Engineering Education, Belfast, UK, iNEER.
- Cockrum, T. (2014). Flipping your English Class to Reach All Learners. Strategies and Lesson Plans. Routledge. United States.
- Crystal, D. (2012). English as a global language. Cambridge university press.
- Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From Game Design Elements to Gamefulness: Defining Gamification. In Proceedings of the 15th International Academic MindTrek conference: Envisioning Future Media Environments (pp. 9-15). ACM.
- Dicheva, D., Dichev, C., Agre, G., & Angelova, G. (2015). Gamification in Education: A systematic mapping study. Journal of Educational Technology & Society, 18(3), 75-88.
- Eid, M. (2020). A Program Based on DAISY Technology to Enhance EFL Student Teachers' Speaking and Writing Skills and their Attitude toward them. [Unpublished doctoral dissertation]. Faculty of Education, Mansoura University, Egypt.
- Elmansi, H, Dadour, D., Qoura, A., Hamada, H. (2021). The Impact of Data-driven Learning based Program on Developing Student Teachers' Lexico-grammatical Performance Skills in EFL Writing. Journal of Research in Curriculum Instruction and Educational Technology, 7(3), 37-65 doi: 10.21608/jrciet.2021.181573
- El-Nagar, N. (2016). The Impact of Habits of Mind (HOM)- Based Strategies on Enhancing EFL Writing Skills and Self-Efficacy for Preparatory School Pupils. [Unpublished Master thesis]. Faculty of Education, Mansoura University, Egypt.
- Goehle, G. (2013). Gamification and Web-Based homework. Primus, 23(3), 234-246.
- Graham, S., & Perin, D. (2007). A Meta-analysis of Writing Instruction for Adolescent Students. Journal of Educational Psychology, 99(3), 445– 476.

Graham, S., Gillespie, A., & McKeown, D. (2013). Writing: Importance, development, and instruction. Reading and writing, 26(1), 1-15.

- Hanus, M. D., & Fox, J. (2015). Assessing the Effects of Gamification in the Classroom: A Longitudinal Study on Intrinsic Motivation, Social Comparison, Satisfaction, Effort, and Academic Performance. Computers & education, 80, 152-161.
- Harmer, J. (2004). How to teach English writing? Essex: Pearson Education Limited.
- Isleem, H. (2012). A Suggested Program Based on Individualized Activities for Developing Palestinian Sixth Graders' Writing Skills. [A doctoral dissertation]. Islamic University, Gaza.
- Kiryakova, G., Angelova, N., & Yordanova, L. (2014). Gamification in Education. Proceedings of 9th International Balkan Education and Science Conference.
- Leaning, M. (2015). A study of the Use of Games and Gamification to Enhance Student Engagement, Experience and Achievement on a Theory-based Course of an Undergraduate Media Degree. Journal of Media Practice, 16(2), 155-170.
- Leki, I. (2003). A Challenge to Second Language Writing Professionals: Is Writing Overrated. Exploring the Dynamics of Second Language Writing, 315.
- Loima, J., & Vibulphol, J. (2016). Learning and Motivation in Thailand: A Comparative Regional Study on Basic Education Ninth Graders. International Education Studies, 9(1), 31-43.
- Machajewski, S, T. (2017): Application of Gamification in a College STEM Introductory Course: A Case Study. [Doctoral dissertation]. Northcentral University.
- Majdoub, M (2016): Promoting High School ESL Learners' Motivation and Engagement Through the Use of Gamified Instructional Design. [Doctoral dissertation]. Concordia University Montreal, Quebec, Canada.

Maltin, M.W. (2005). Cognition: Johan Wiley & Sons, Inc

Marczewski, A. (2013). What's the Difference between Gamification and Serious Games? Retrieved from Gamasutra: <u>http://www.gamasutra.com/blogs/AndrzejMarczewski/20130311/1882</u> <u>18/Whats_the_difference_between_Gamification_and_Serious_Games.php</u>

- Mercedes, J, M., (2017): Gamification as a Tool to Enhance Motivation and Participation Towards Writing Skills. [Master Thesis]. Jaén University, Spain.
- Muntean, C. I. (2011). Raising Engagement in e-learning through Gamification. In Proc. 6th international conference on virtual learning ICVL (Vol. 1, pp. 323-329), Cluj-Napoca, Romania, Europe.
- Plass, J. L., Homer, B. D., & Kinzer, C. K. (2015). Foundations of gamebased learning. Educational Psychologist, 50(4), 258-283. <u>http://doi:10.1080/00461520.2015.1122533</u>
- Polkinghorne, M. M (2013). Top Research Based Writing Strategies for Motivating Early Elementary Stage. [Master Thesis]. Northern Michigan University.
- Prensky, M. (2003). Digital game-based learning. Computers in Entertainment (CIE), 1(1), 21-21.
- Richards, J. C., & Renandya, W. A. (2003). Methodology in Language Teaching: An Anthology of Current Practice. Cambridge: Cambridge University Press.
- Schunk, D.H., Pintrich, P.R., & Meece, J.L. (2010). Motivation in Education: Theory, Research, and Applications. Pearson: Upper Saddle River.
- Shanahan, T. (2004). Overcoming the dominance of communication: Writing to think and to learn. In Graham, S., & Perin, D. (2007). Writing next: Effective strategies to improve writing of adolescents in middle and high schools – A report to Carnegie Corporation of New York. Washington, DC: Alliance for Excellent Education.
- Sombrio, G. D. S., Ulbricht, V. R., & Haeming, W. K. (2014). Games and Gamification: A Proposal for a Creative Learning Process in Education. Journal of Education and Human Development 3 (4), 117– 129. <u>http://doi:10.15640/jehd</u>
- Stott, A., & Neustaedter, C. (2013). Analysis of Gamification in Education. Surrey, BC, Canada, 8, 36. Retrieved from <u>http://clab.iat.sfu.ca/pubs/Stott-Gamification.pdf.</u>

- Werbach, K., & Hunter, D. (2012). For the win: How game thinking can revolutionize your business. Wharton digital press. Available at: <u>http://www.who.int/mediacentre/factsheets/fs286/en/</u>
- Wery, J., & Thomson, M. M. (2013). Motivational strategies to enhance effective learning in teaching struggling students. Support for learning, 28(3), 103-108. <u>http://doi:10.1111/1467-9604.12027</u>
- Widodo, H. (2006). Approaches and procedures for teaching grammar. English teaching, 5(1), 121. Retrieved from: <u>http://education.waikato.ac.nz/research/files/etpc/2006v5n1nar1.pdf</u>
- Zhang, J., Graves, R., Graves, H., & Rockwell, G. (2017). The Game of Writing: Gamification and Social Commenting in Writing Instruction.