

The National Egyptian E-learning University
The Faculty of Educational Studies
Education Technology Department



The impact of using an e-content based on gamification technology to develop English communication skills in the secondary school stage

**A thesis submitted in partial fulfilment of the requirements
for the degree of Master's in E-Learning.**

By

Beshoy Labib Sam Guirgius

Supervisors

**Prof Dr. Nabil Gad
Azmy**

**Professor of Education
Technology**

**Faculty of Education
Helwan University**

**Dr. Mohammed Alsayed
Alnagar**

**Associate Professor
of Education Technology**

**Faculty of Educational Studies
The National Egyptian E-
Learning University**

2020

تشكيل لجنة المناقشة والحكم على رسالة الماجستير في التربية تخصص التعلم الإلكتروني

الاسم: بيشوي لبيب سام جرجس ، للحصول على درجة الماجستير في التربية تخصص التعلم الإلكتروني.

"The Impact of Using an E-content Based on Gamification Technology to Develop English Communication Skills in the Secondary School Stage"

هيئة الأشراف:

د. محمد السيد النجار

أ.د. نبيل جاد عزمي

قد وافق مجلس الكلية على تشكيل لجنة المناقشة والحكم على رسالة الطالب بتاريخ ٢٠٢٠/١٠/٢١ م على النحو التالي:

الاسم	التخصص	الوظيفة	الجامعة	عضوية اللجنة
أ.د. بشري مسعد عوض	الكيمياء	أستاذ الكيمياء ومدير المركز القومي للتعلم الإلكتروني سابقا - كلية البنات	عزيم شمس	رئيسا ومناقشا
أ.د. نبيل جاد عزمي	تكنولوجيا التعليم	أستاذ تكنولوجيا التعليم كلية التربية	حلوان	مشرفا
أ.د. وليد يوسف محمد	تكنولوجيا التعليم	أستاذ تكنولوجيا التعليم كلية التربية	حلوان	مناقشا
د. محمد السيد النجار	تكنولوجيا التعليم	أستاذ تكنولوجيا التعليم المساعد كلية الدراسات التربوية	الجامعة المصرية للتعلم الإلكتروني الأهلية	مشرفا

“Take heed unto thyself, and unto the doctrine; continue in them: for in doing this thou shalt both save thyself, and them that hear thee.”

1 Timothy {4:16}

“Beloved, I wish above all things that thou mayest prosper and be in health, even as thy soul prospereth”

3 John {1:2}

Abstract

The impact of using an e-content based on gamification technology to develop English communication skills in the secondary school stage.

This study investigated the impact of using E-content based on Gamification technology on developing English communication skills in the secondary school stage in Egypt. For data collection, the researcher used a quasi-experimental method by using an experimental group of (25) students and a control group of (25) students. The main tool of the study was a gamified e-content built via www.creat.kahoot.it. The pre-test of English communication skills was applied to examine students' levels of both groups. The experimental group was taught using the gamified e-content while the control group was taught the content traditionally. At the end, the post-test was also applied for both groups to check improvement. The data was collected, and the test scores were computed using SPSS v 22 software to answer the questions of this study. Based on the findings, the researcher found that there was a significant effect using e-content based on gamification on developing English communication skills for the students in favour of the experimental group. The researcher recommended that teachers should give more emphasis to the use of gamification for its positive effects on developing English communication skills.

Keywords: e-content, gamification, English communication skills.

Acknowledgment

First, I would like to thank my Lord for granting me this blessing to complete this thesis and bring me to this day and these very important moments in my life. Second, I would like to thank all my teachers who taught me from the primary school to the secondary school, I owe all of you a lot.

It has been a long way, strikingly beautiful and challenging, and I am extremely grateful to those who have supported me and stayed by my side in the moments of glory and despair. I would like to express my gratitude to the supervisors – Prof. Nabil Gad Azmy, whose help on the initial stages of thesis ideation is invaluable, and Dr. Mohamed Elsayed EL Nagar, whose wise advice, attention, and support let me come to the point where I am now in my study life. Special thanks to my late uncle Michelle Barsoum who departed before seeing that day.

The last, but far from being the least, I would like to thank my beloved family; my father Labib Sam, My mother Mary and my brothers Sameh and Fr/Fam Ava Hormina and my only sister and second mother Ereiny for what they have done and offered to me and my faithful friends who have been supporting me through my life and accepting me in my good and bad. You are my soul, and I appreciate all the words and emotions you share with me.

Also, I would like to thank my all teachers who made and helped me to be the researcher standing in front of you between your hands.

Thanks to my past for the memories, my future – for the opportunities, and special thanks to my present for brining bearable challenges and absolute excitement to my life!

Table of Contents

The verse	II
Abstract III	
Acknowledgment	IV
List of Tables	VIII
List of Figures	IX
List of Appendices	XI
Chapter 1	3
Introduction	3
1.1. Context and statement of the problem	5
1.2. Research Questions	7
1.3. Research Hypotheses	7
1.4. Research Purpose	7
1.5. Research Significance	8
1.6. Research Methodology:	8
1.7. Research Variables	8
1.8. The Experimental Design	9
1.9. Research tools	9
1.10. Delimitations and Limitations of the Research	10
1.11. Definitions of key terms and concepts	10
1.11.1 E-content	10
1.11.2 Gamification	11
1.11.3 English communication skills	11
Chapter 2	15
2.1. The E-content	15
2.1.1. Nature of e-content	17
2.1.2. Objectives of e-content	18
2.1.3. Benefits of e-content:	19
2.1.4. Characteristics of a good e-content	21
2.1.5. Phases of e-content development	22

2.1.6. Pedagogical issues in e-content Development	24
2.1.7. E-content Tools	25
2.2. Gamification	26
2.2.1. What is gamification?	27
2.2.2. The historical background of gamification	29
2.2.3. The evolution of gamification	32
2.2.4. The benefits of gamification in online teaching and E-Learning:	33
2.2.5. Gamification against game-based learning	34
2.2.6. Serious games and gamification:	34
2.2.7. Theories around gamification Design:	35
2.2.8. Extrinsic and Intrinsic motivation:	40
2.2.9. Types of players:	41
2.2.10. Classification of gamification:	44
2.2.11. Gamify an E-learning application:	45
2.2.12. Gamification Application:	45
2.2.13. A Meaningful gamification:	48
2.2.14. Fun and emotions in gamification	49
2.2.15. Gaming elements which can facilitate learning	50
2.2.16. Gamification Features	51
2.2.17. Game Dynamics	57
2.2.18. The English communication skills	58
2.2.19. The importance of English communication skills	59
2.3.1. The definition of English communication skills	60
2.3.2. Types of communication skills	62
Chapter 3	64
3.1. Research Design	64
3.2. Research Variables	65
3.3. Research participants	65
3.4. Research Tools	66
3.5. Design e- content based on gamification technology	66

3.6. Applying Kemp's model	67
3.7. The implementation:	81
3.8. Summary of Research Procedures:	86
Chapter 4	90
4.1. Results:	90
4.2. Hypothesis (A):	91
4.3. Hypothesis (B):	92
4.4. Discussion	94
4.5. Recommendations	96
4.6. Further Research	97
Appendices	115
The English Summary	162

List of Tables

Table 1 The Experimental Design of the research	9
Table 2 Shows sample Distribution According to Group	66
Table 3 A list of English communication skill for the first-year secondary schools	71
Table 4 Shows the test specifications	77
Table 5 An example for the modifications made by the juries	78
Table 6 Measuring the equivalence of the two groups	80
Table 7 Total results (Mean values $\pm$ SDs) for both control and experimental groups post-test	92
Table 8 Total results (Mean values $\pm$ SDs) for experimental groups pre - post test	93

List of Figures

Figure 1 Basic desire theory	37
Figure 2 Bartle's Types of players	42
Figure 3 Verbs for casual, social, and serious games and gaming systems.	43
Figure 4 the main page of https://kahoot.com/.	48
Figure 5 Badges on Kahoot.	53
Figure 6 Points on Kahoot.	55
Figure 7 Leaderboard on Kahoot	56
Figure 8 A quasi experimental pre-test/post-test) design.	65
Figure 9 The elements of kemp's model.	68
Figure 10 The first screen of an empty question.	73
Figure 11 Writing the question and putting a related image.	74
Figure 12 Putting the probable answers and ticking the correct one.	74
Figure 13 Testing the kahoot or the final product.	75
Figure 14 The URL sent to the players (students).	75
Figure 15 Column chart of total mean values for both control and experimental groups	80
Figure 17 Step 1 The players press Next.	82
Figure 16 The first screen the players see.	82
Figure 18 Step 2 The players press start playing.	83
Figure 19 Step 3 The players write his/her name then press the green button Ok, go!	83
Figure 20 Step 4 The players will see this screen.	84
Figure 21 Step 5 The players will read the question. At the bottom, the time counter decreases.	84
Figure 22 Step 6 The players choose the correct answer, and it turns to green.	85
Figure 23 Step 7 If the answer is correct, the player will have points.	85

Figure 24 Step 8 After each question the players know their points on leaderboard.	86
Figure 25 Column chart of total mean values for both Control and experimental groups pos- test.	92
Figure 26 Column chart of total mean values for experimental groups	93

List of Appendices

Appendix	page
Appendix 1: list of juries	95
Appendix 2: Specification of gamified website check list	96
Appendix 3: List of juries of the gamified website “Kahoot”	98
Appendix 4: Building the gamified website “Kahoot	99
Appendix 5: The final test	126
Appendix 6: Key answer	129
Appendix 7: The Electronic Pre-test	130
Appendix 8: The Electronic Post-test	134
The English summary	A
Research summary in Arabic	أ - و

Chapter One

Background and problem

- **Introduction**
- **Context and statement of the problem**
- **Research questions and hypothesis**
- **Research purpose**
- **Research significance**
- **Research method**
- **Research design**
- **Research Tools**
- **Delimitations and limitations of the research**
- **Definitions of key terms and concepts**

Chapter 1

Background and problem

Introduction

Education is not an easy process. When a teacher tries to deliver an educational message-whatever it is-he or she faces a lot of difficulties. In the past curriculum was a little bit easier than today's so the difficulties faced at that time could be managed simply by technology and the teacher. Through the time the curricula changed and became harder and more complicated and needed a lot of work to coop with the rapid technology development. Technology itself cannot be easy to be defined meanwhile we use it not every day but every minute. The use of technology in education gives the learner the joy of learning so we can use this joy to encourage the learner to learn more and achieve more.

Today, like never before, the function of educational technology in education is critical as a result of the use of data and communication advancements. With the assistance of different applications for distance education, the Internet, instructors, and students themselves, they see the upside of educational technologies. With the improvement of data and communication technology, particularly PCs, various scientists were attempting to see the advantages and the impact of their use contrasted with more established conventional learning. For a long time, the analysts attempted to offer responses to the topic of points of interest and weaknesses among customary and current showing where the predominant technology of education.

The gamification of learning is a methodology which has as of late advanced, as a team with innovative turns of events, to incorporate a lot bigger scopes for interactivity, new devices, and better approaches to interface individuals. There is no uncertainty today that PC games are of ideal learning conditions (cf. Gee 2003; Mitchell/ Savill-Smith 2004, Van Eck 2006) Games can give more successful learning by bringing more fun, engaging, and student learning environments (Ebner & Holzinger, 2007; Prensky, 2001).