## Enhancing Reading Skill via ReadTheory.org: Students' Attitudes, Motivation, Autonomy and Perceptions

**Fatmah Sewelem Alalwany**
Remedial Program Coordinator
Yanbu English Language Institutes & Preparatory Year Program
Yanbu University College - Women's Campus, Saudi Arabia

Abstract.
Studies into the use of gamification, "the use of game design elements in non-game contexts*"* (Deterding et al, 2011, p9) for language learning, has found positive results on language development and enhancing learner engagement toward the learning process, but they have mostly focused on the effectiveness of gamification rather on learner's attitudes, motivation, and autonomy toward the gamified language learning experience. This research presents the results for a study into the use of a gamified reading website, Readtheory.org, that incorporates the use of gamification elements of badges, knowledge points (KPs), levels, and feedback to enhance reading comprehension. Thus, this study examines 50 undergraduate university students' attitudes, motivation, autonomy and perceptions toward enhancing their reading skills. The data were collected from students' interviews and questionnaires at YELI in KSA. The findings showed that students' attitudes are high toward the gamified platform and that the utilization of Readtheory motivates students to read independently using the website inside and outside the classroom. The main advantage of Read theory is it can be easily used anywhere-anytime, a better alternative to traditional reading methods and it can be adopted to enhance student's reading comprehension.

School of Education
University of Leeds, Leeds, UK

**UNIVERSITY OF LEEDS**

# Enhancing Reading Skill via ReadTheory.org: Students'

# Attitudes, Motivation, Autonomy and Perceptions

**By**

**Fatmah Sewelem Alalwany**

**M.A. DISSERTATION**

# Table of Contents

**LIST OF TABLES**

**LIST OF FIGURES**

**LIST OF ABBREVIATIONS**

| | |
|---|---|
| **EFL** | English as a Foreign Language |
| **ELT** | English Language Teaching |
| **ERP** | Extensive Reading Program |
| **IMI** | Intrinsic Motivation Inventory |
| **KP** | Knowledge Points |
| **KSA** | Kingdom of Saudi Arabia |
| **L1** | First Language |
| **L2** | Target Language |
| **OCT** | Operant Conditioning Theory |
| **SL** | Second Language |
| **SDT** | Self-Determination Theory |
| **SPSS** | Statistical Software for Social Sciences |
| **YELI** | Yanbu English Language Institute |
| **ZPD** | Zone of Proximal Development |

**Abstract**

Studies into the use of gamification, *"the use of game design elements in non-game contexts"* (Deterding et al, 2011, p9) for language learning has found positive results on language development and enhancing learner engagement toward the learning process but they have mostly focused on the effectiveness of gamification rather on learner's attitudes, motivation, and autonomy toward the gamified language learning experience. This research presents the results for a study into the use of a gamified reading website, Readtheory.org, that incorporates the use of gamification elements of badges, knowledge points (KPs), levels, and feedback to enhance reading comprehension. Thus, this study examines 50 undergraduate university students' attitudes, motivation, autonomy and perceptions toward enhancing their reading skills. The data were collected from students' interviews and questionnaires at YELI in KSA. The findings showed that students' attitudes are high toward the gamified platform and that the utilization of Readtheory motivates students to read independently using the website inside and outside the classroom. The main advantage of Readtheory is it can be easily used anywhere-anytime; a better alternative to traditional reading methods and it can be adopted to enhance student's reading comprehension.

**Keywords**: attitudes, autonomy, EFL, English language teaching, gamification, learners, motivation, reading skill, Readtheory.com, Saudi context, second language

**Chapter One: Introduction to the Study**

Although gamification is not a new term as it has its roots from Piaget's work (1962, Bentham,2002) that indicates the importance of games in enhancing learning, it has not been widely known until 2010 (Deterding et al, 2011; Brigham, 2015; Werbach and Hunter, 2012). Gamification is defined as "using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems" (Kapp,2012, p10). Since gamification is not only limited to one setting and can be implemented to other contexts, Deterding et al (2011, p9) and his colleagues provide a broader definition which defines gamification as "the use *of game design elements in non-game contexts*" which can simply put as the process of incorporating game elements into non-game settings such as education, marketing and business. One of the most well-known examples of gamification in language learning is "Duolingo" as a free language learning platform. It provides learners with lessons that are characterized by a rewarding system of experience points, badges, and leaderboard along with allowing learners to get instant feedback while learning.

Gamification has been just recently given great attention by scholars and educators as a useful tool to enhance the learning experience. It is seen as "innovative and engaging methodology" that engages learners and promotes learning experience ((Martí-Parreño et al., 2016). It is also described as a valuable, meaningful learning experience within a non-threatening safe and fun environment that supports student engagement and experiential learning (Kapp, 2013; Whitton and Moseley, 2012). Previous studies have reported the importance of gamification in enhancing the learning process and increasing learner's engagement (DomíNguez et al, 2013; Lee & Hammer, 2011). If well-designed, gamification can help learners to create a sense of achievement and progress in the learning experience (Brigham, 2015).

Gamification in language learning fits today's students "Digital Natives" described by Prensky (2001, p1) **"Today's students are no longer the people our educational system was designed to teach."** In other words, there is a need for effective and engaging methods beyond the traditional methods of language teaching that rely on a teacher-centered approach where students are seen as passive learners.

Different studies unveiled many potential advantages of gamification in language learning like, providing more opportunities to practice what they have learned allowing them to make mistakes that lead to increased learning. Additionally, learners are provided with instant feedback that allows for more guidance (Hammer and Lee, 2011; Whitton and Moseley, 2012). Another key advantage of gamification is that it is correlated with student-centered learning. Learners are allowed to take control of their learning and set objectives for themselves. Additionally, it helps students with low engagement to participate using gamification techniques (Da Rocha Seixas et al., 2016). Gamification-based teaching practices can positively enhance students' attitudes towards the learning process as well (Yildirim, 2017). Another central reason supports the effectiveness of gamification is its association with learning theories (as discussed in chapter two) that attempt to develop problem-solving, higher-order thinking skills allowing for active learning (Kapp, 2012; Whitton and Moseley, 2012).

Because of the prominent role of gamification and the gamified reading experience, it would be interesting to examine Saudi learners' attitude toward gamification in language learning particularly at reading comprehension using the gamified program, Readtheory. Thus, the study takes the form of five chapters, including this introductory chapter with more focus on

Saudi learners' background of reading and my motivation to conduct this research. Chapter two deals with the literature review which gives a brief overview of the theoretical dimensions of the research with special reference to motivation, autonomy in gamification. The third chapter is concerned with the methodology used for this study. The fourth chapter presents the findings of the research. Finally, the conclusion gives a summary of the findings and includes a discussion of the implication of the findings to future research into this area.

## 1.3 Background of The Study

Since 1984 when English was first introduced in KSA, students have been exposed to English as the only taught foreign language at intermediate and secondary schools. English curriculum at schools includes all the four skills of listening, speaking, reading and writing. Although Saudi students are exposed to language learning for at least 4 hours a week from intermediate to high school, they seem to have real issues with English reading comprehension, and they struggle with a limited vocabulary. They seem reluctant to read outside language classroom which is regarded as a fundamental requirement to make academic success (Grabe,2013).

Several researchers have reported some problems related to reading into EFL Saudi context. According to Nezami (2012), Saudi EFL learners face challenges related to vocabulary, scanning and skimming of the text, lack of self-study activities, prediction of the meaning of the text, summarizing and comprehension of the full text.

Al-Qahtani (2016, p3) explores the reasons behind Saudi learners' poor reading skills and he finds that most EFL Saudi learners are faced with the following problems:

1. Lack the necessary reading habits in L1 and L2

2. Lack of exposure to L2

3. Less motivation to improve reading

4. Limited vocabulary

Moreover, the average score on IELTS Tests for English for Saudi students for the reading band is 3.90 which is the lowest mean band score in the world. This low score shows Saudi student's poor reading competence in EFL (IELTS,2017).

Overall, most of these problems are attributed to different reasons. First, Saudi learners lack real opportunities to be exposed to L2 and practice English-skills. They have poor access to L2 which is described as "comprehensible input" in Krashen words (1989). Second, it has been noticed that Saudi society pay little attention to reading for pleasure especially that English is considered as a foreign language (Alsubaie, 2014) which supports the fact that reading abilities for EFL learners can be affected by the social context of literacy in L1 (Grabe,1991, p388). Other reasons can be related to how reading is taught in language classroom such as "little attention to comprehension and more attention to reading aloud", and "little emphasis on reading skills in textbooks" (Al-Qahtani, 2016, p2).

Several studies have been conducted to provide solutions on how to overcome these reading problems. For example, some researchers have shed light on the positive effect of an extensive reading program ERP as an effective strategy to enhance reading comprehension for Saudi learners (Al-Nafisah,2015; Al-Homoud and Schmitt, 2009). However, ERP has been called into question by other researchers as environment, student's interest in reading, and availability of resources must be taken into consideration when incorporating ERPs in Saudi schools.

Other studies have highlighted the significance of reading strategies in reading comprehension. For example, Meniado (2016) analyzed the relationship between metacognitive reading strategies, reading motivation, and reading comprehension performance for college students in The Industrial college in KSA. The study revealed that there is a positive correlation between reading strategies and reading motivation.

In parallel to enhancing learner's motivation in reading comprehension, few studies have emerged on using technology in developing reading skills. One study that was carried out by Taj et al (2017) indicated the effectiveness of incorporating technology to language learning as an effective tool to enhance reading comprehension and instruction. Similarly, Hazaea and Alzubi (2016) surveyed 30 Saudi students at Najran University to explore the effectiveness of using mobile technology (WhatsApp, online and offline dictionaries, online resources, and camera, note-making, and website) in developing EFL learners' reading practices. The results showed a remarkable improvement in students' reading performance and reading practices in general.

However, the above studies call out for a critical need for new techniques to develop reading comprehension rather than the traditional methods for how reading is taught in KSA (Hazaea and Alzubi, 2016; Taj et al., 2017; Alshumaimeri, 2017). Few studies have dealt with using technology and gamification to improve language learning with more specific focus on reading comprehension, and even fewer with learner's motivation and autonomy in developing reading practices especially that the recent developments of game-based learning and gamification represent new opportunities for Saudi learners to learn language in general and to practice reading skills in more meaningful ways. Therefore, the current research attempts to investigate how the integration of gamification (using Readtheory) can assist

language educators in Saudi context in developing and making reading instruction more effective by exploring student's perceptions and attitudes toward using the gamified platform of reading.

## 1.4 An Overview to ReadTheory.org

The Readtheory is a game-based learning platform accessible as a reading website to develop students' reading comprehension by providing them with reading passages graded from grade 1 through grade 12. It is designed to provide students with a wide range of interesting and authentic passages followed up by reading comprehension questions. These questions are accompanied by immediate, detailed feedback that allows students to analyze and understand their mistakes. It is significant for "its responsive leveling algorithm, which allows students to be presented with best-fit material based on prior performance" (Romeo,2016, p1). That is, students are presented with a placement test that assesses their language reading ability and accordingly they will be placed to their appropriate level. With every practice on a reading quiz, the website will automatically present them with another reading from the next level to challenge them.

Moreover, every individual student is provided with a detailed explanation for her progress. Graphs are used to explain how many KPs were collected, the number of quizzes done, and badges awarded. Likewise, tables are used to show when each reading activity was done along with the scores in percentage for every single reading task. These features enable teachers to keep track of students' reading and monitor students' progress for every task done to practice reading via the website. (See Appendix A)

One of the most remarkable features of the Readtheory is its design that is based on the concept of gamification in which it incorporates game mechanics of points and badges. When students complete a reading quiz, they are rewarded with a digital reading badge and each badge is equivalent to a number of KPs.

Several studies have been carried out to investigate the effectiveness of Readtheory.org as a gamified platform. For example, a study was conducted on Readtheory.org by Tempest (2018) in which Readtheory was used as an ERP at a Japanese university. The program was used as part of the English course for fifteen weeks. The study found out that the three features of the website; ease of access, progress tracking and level adjustments had a positive impact on student's reading.

Piedra Carrión (2018) conducted a quasi-experimental study on the effectiveness of the Readtheory. Two groups of 25 students at Politécnica Salesiana University participated. The experimental group was asked to complete at least 40 readings for 4 hours per week. This study was focused on developing students' critical thinking through the use of Readtheory. It was found that there was a positive change in students' reading which can be concluded that the program developed students' reading comprehension. Furthermore, it was recommended to adopt this program as a complementary tool to develop reading comprehension.

Another study was conducted by Mork (2017) in which Readtheory was provided to freshmen students to familiarize them with the exam format, improve their reading skills. Besides, it aimed to provide students with a tool for self-directed learning. The results showed positive levels of satisfaction among 36 participants since the reading content is extensive and continually expanded.

However, the above studies have not treated learner's attitudes, motivation, and autonomy toward the program in much detail and it was not clear whether the program helped students with self-directed learning. Additionally, little attention has been paid to the gamification elements of the readtheory.org. Thus, due to the few numbers of researches that focus on gamification on language learning in the Saudi context, the current research attempts to investigate how the integration of gamification (using Readtheory.org) can affect student's motivation, autonomy and attitudes toward using the gamified platform of reading.

**1.5 Motivation for Undertaking the Current Research**

With the beginning of the academic year 2016-2017, I had the honor to be the coordinator of the ERP established in YELI. I started working at the English Department with 13 teachers and 200 students from the intermediate level (001). YELI teachers had to discuss ERP issues and report their students' progress weekly to the ERP coordinator. However, it was realized that the majority of teachers and students had some problems with the ERP. Students found difficulties related to time constraints; spending more time to find reading materials which had to be culturally and academically appropriate. In addition to the lack of resources, some students reported that the reading materials were not easy to read and for others, it was hard to find available reading materials at the university library. Teachers did not only face issues dealing with students who were reluctant to practice reading but also, they were challenged to monitor students' progress to make sure that their students were doing their reading task outside language classroom effectively. The main concern was whether students were motivated to read using this program and how efficiently it develops their reading skills. As a reaction to those problems and following Krashen ideas (1989) about improving reading as he states that the best way to help learners to develop reading skill is by starting reading, I

started to incorporate a reading strategy to my everyday classroom. I thought it would be better to find a replacement for the ERP, a program that could be more motivating and accessible for both teachers and students. I started to use Readtheory as an alternative to traditional ERP. Readtheory is designed to provide language teachers with practical reading passages for different language levels. The Readtheory was used as part of language class experience and students were asked to spend 15 min inside the classroom every day to practice their reading skills and were encouraged to use it outside classroom as well. The rationale for the initiation of the site is to help students find an accessible resource for authentic reading materials that can help them to have a better understanding of other cultures. Moreover, I wanted to help YELI learners to build a reading habit that can effectively support their language learning experience. The most underlying reason that motivated me to introduce Readtheory to my students was the idea that "the best way to motivate readers, especially reluctant readers—is to blur lines between books and games."(Martens,2014, p20) by using the gamified reading website and providing students with game elements of points and badges that may increase their motivation and enhance their learning experience.

**1.6 Significance of the Study**

In most EFL Saudi traditional classes, students are less motivated to read and reading skill is considered as the most difficult skill to develop among other language skills. They perceive reading as a boring activity; therefore, they struggle with reading comprehension. This study of a potential to achieve the goal of enhancing students' attitudes toward reading through the use of the gamified platform Readtheory. Additionally, it is of particular importance to policymakers, curriculum designers and teachers wanting to improve students' reading comprehension and increase their motivation toward reading skill. Moreover, it highlights the

need for change in teaching practices to English reading through the use of gamification. Last but not least, it aims to bring new insights on how to improve the way reading skills are taught in EFL contexts, particularly those relating to the Saudi context.

## 1.7 Research Questions

This study aimed to address the following research questions:

1. What are EFL learners' attitudes towards the use of Readtheory website as a game-based learning platform?

2. To what extent do EFL learners think that Readtheory.org helps them to improve their reading skills?

3. To what extent do game elements of Readtheory (badges and KPs) motivate students to use the platform?

4. Does Readtheory.org motivate EFL learners to be independent learners? If yes, how does it motivate them to be independent?

**Chapter Two: Literature Review**

**2.1 Second Language Reading**

Among the three skills of language, reading is seen as the most important skill for second language learners in academic contexts (Grabe,1991; Hudson, 2007). According to Bamford (2004) learners who read more will not only become better and more confident readers, but they will also develop other language skills of writing, listening and speaking. Additionally, this will affect other language areas of vocabulary and grammar positively as learners will be more familiar with language structure and their vocabulary will increase as well. Grabe (2013, p129) states that reading can provide a rich resource for input in second language learning for both language and content information.

However, due to the nature of reading skill as a complex process that involves different purposes and multiple properties for why people read, it is difficult to agree upon a single definition which can provide a clear picture for the complexity of reading (Grabe, 2009; Hudson, 2007; Juan, 2008). As a result, researchers have shifted their attention from examining what is reading to understanding how fluent readers perform the complex processes of reading placing more emphasis on component skills of reading (Grabe, 2009, p21).

Second language reading has been evolved over the reading process and the development of reading abilities. Additionally, reading and readers' role are seen as an active process rather than a passive process. This idea was first introduced by Chomsky who argued that learning is a cognitive process, and by doing so, he opened the door for other scholars to change the dominating idea about reading as a passive process that existed between the 1980s and 1990s (Grabe,1991, Wallace,2001; Goodman, 1967; Smith, 1971; Krashen,1989). However, more recently, the reading process is described as an interactive process. Accordingly, research on

reading a second language has highlighted different principles regarding how we read and how reading should be taught. Recent research pays relatively great attention to **Interactive reading models** which are considered to be "the best approaches that explain the reading process" (Juan, 2008, p239). Interactive reading models involve both bottom-up and top-down processing and both processes provide a clear picture of how we read. In bottom-up processing, language is processed through building up meaning from the lower information of language in which learners need to recognize linguistic signals (letters, morphemes, syllables, words...etc.) to understand the meaning of the text. Whereas in Top-down, learners understand the text depending on their experience and knowledge about the topic of the text (Brown,2001) Interactive models rely heavily on the Schema Theory, a theory of knowledge that refers to the importance of background knowledge in language comprehension (Juan, 2008). Reading in this model is viewed as a cognitive process (Wallace,2001; Juan, 2008).

Furthermore, current research on reading emphasized reading fluency with automaticity development, extensive reading development, background knowledge, reading strategies and metacognitive skills as important aspects of reading that have started to grab the attention of scholars and educators in second language reading development (Grabe and Stoller 2002; Grabe,2009; Hudson,2007; Juan, 2008). It must be mentioned that reading fluency with automaticity development and extensive reading development are considered the most important aspects of developing reading through the use of technology (Grabe,2009).

Field (2006, p332) describes fluent L2 reading as "a rapid, efficient, interactive, flexible linguistic process that incorporates purposeful, strategic, evaluating elements.". According to Ur (2012), language level, speed, unknown vocabulary, motivation, and purpose are significant characteristics that can increase fluent reading in which students can read texts proficiently and understand meaning more rapidly.

Automaticity in decoding graphic forms and word recognition is seen as a prerequisite to fluent reading. According to Eskey (as cited in Juan, 2008, p241), automaticity in word recognition is defined as "the ability to convert most written language into meaningful information so automatically that the reader does not have to think about the language and can concentrate on combining the information obtained with background knowledge to construct a meaning for the text."

EFL Saudi learners are faced by two major problems with reading; being reluctant to read due to lack of motivation and the limited exposure to L2 due to lack of resources.

Based on this knowledge, efficient reading instruction in the Saudi context need to focus on these two areas (reading Fluency with automaticity development and Extensive reading development) to promote reading comprehension skills for EFL students to become more fluent readers in L2 and to develop their reading abilities. Accordingly, the primary objective of using Readtheory as a game-based learning platform is to get students reading in English. A remarkable increase in reading fluency by creating more opportunities for comprehension should be another objective.

## 2.2 Reading Comprehension and Extensive Reading Programs ERP

In the last fifteen years, researchers have become more concerned with how to develop reading skills outside of the classroom which is relatively connected to learners' motivation, autonomy, and confidence (Grabe and Stoller, 2002). Thus, ERP was emphasized as one of the most highlighted reading programs that involve encouraging students to read texts of their interest and it is often done outside language class. ERP is inspired by Krashen's theory of the comprehensible input i+1. He considered reading as "a source of comprehensible input in a second language" (Krashen and Terrell,1983, p131) in which language should be comprehensible and appropriate to student's level (Ur, 2012). There is a general agreement

that reading, or what Krashen refers to as voluntary reading is correlated with overall language development (Day and Bamford, 1998; Krashen, 2004). This has been discussed by a great number of authors in literature. According to Nuttall (2005), reading easy and enjoyable texts is essential to create a reading habit that in turn can promote reading comprehension. Furthermore, reading extensively can effectively enhance the reading fluency in which students can read texts skillfully and understand meaning quickly (Harmer,2015; Ur,2012). The main advantage of introducing students to ERPs is that they expand their reading experience through being exposed to a wide range of texts (Ur,2012). However, despite its effectiveness, ERPs have not been practically implemented as expected due to some limitations. A lot of time will be spent to convince institutions about its benefits as it needs financial cost to build libraries (Renandya and Jacobs, 2002; Ur, 2012). Also, there are some practical issues of limited or unavailable resources that are related to appropriate materials to engage students in the ERPs. Furthermore, the lack of awareness of the importance of reading for language development is one of the serious issues that need to be considered when thinking about introducing ER (Renandya and Jacobs, 2002).

Therefore, teachers need more flexible and practical programs to develop students' reading skills taking into consideration the advantages of the extensive reading principles which were highlighted by Bamford and Day (2002) for a successful reading program:

1. Reading material is easy;

2. A variety of reading material on a wide range of topics

3. Learners read as much as possible

4. Reading is fast (learners should be discouraged from using dictionaries)

5. The purpose of reading is usually for pleasure, information or general understanding

6. Reading is individual and silent

7. Reading is its own reward

8.	The teacher orients and guides the students; and the teacher is a role model of a reader.

The principles mentioned above motivated me to look for a new methodology to enhance the reading comprehension for my students. Thus, in this research, the gamified platform, Readtheory that incorporates gamification elements was used as a practical alternative for ERPs. Gamification elements will be taken up in the next section.

**2.3 Elements of Gamification**

According to Deterding et al., (2011, p10) gamification elements are defined as "elements that are characteristic to games". Although gamification is deeply connected to "games" as in games, different elements are involved, the adaptation of these elements in gamification is not an easy task because it is seen as a complex process as pointed out by researchers who are involved in the concept of designing successful gamification (Kapp, 2012, Zichermann and Cunningham 2011, Deterding, et al., 2011, Werbach and Hunter 2012). These elements are nicely described by Kapp (2012, p9) to provide a clear picture of the concept of gamification "Gamification is using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems."

1.	**The use of games - based mechanics of game elements**: badges, levels, earning badges, point systems, scores, and time constraints.

2.	**Aesthetics**; The importance of engaging graphics and a well-designed experienced, for successful gamification.

3.	 **Game Thinking**; This is considered as the most fundamental element of gamification and it is related to thinking about the simple activity as an activity that has elements of competition, cooperation, exploration.

Likewise, Werbach and Hunter (2012) classified game elements according to three categories; dynamics, mechanics, and components.

Table 1: Game elements; dynamics, mechanics, and components.

| Category | Description | Example |
|----------|-------------|---------|
| Dynamics | High-level aspects of game that have to be considered and managed, but not directly implemented into games. | Constraints, emotions, narrative, progression, relationships |
| Mechanics | Processes that engage players by moving actions forward. | Challenges, competition, cooperation, feedback, rewards |
| Components | Specific forms of mechanics or dynamics. | Achievements, avatars, badges, levels, points, teams |

Elements of gamification like badges, points, and scores can create a sense of engagement and competition in the learning process and accordingly learners will be more excited and encouraged to learn. To consider an example, in a study conducted by Denny (2013), an online learning tool was used with badges to gamify the learning experience. The results showed a partially positive increase in the level and the quality of participation.

In a similar experience to gamify e-learning course, (Gåsland, 2011 as cited in DomíNguez et al., 2013) a web platform was designed to be used as a collaborative database to help students review and study topics by creating questions or answering questions. Although it was

developed by gaining experience points as the only mechanism of gamification, it was motivating and engaging.

Brewer et al. (2013) carried out research to investigate the impact of gamification on children through introducing design elements of points and prizes into the course. The researcher found that the gamified system increased the rate of task completion from 73% to 97% which in turn increased children's motivation. Similar results were found by Gibson et al. (2013) and Santos et.al (2013) that game elements of badges can increase learner's motivation, engagement and create a sense of achievement.

## 2.4 Elements of Gamification in Readtheory.org

As mentioned previously Game-based techniques of gamification can encourage learners to achieve tasks that are usually considered boring such as practicing reading comprehension. In gamification, game elements are used as "a trigger for learning" (Whitton and Moseley, 2012). The following elements are incorporated into the website of Readtheory.org

**Badges and Points**: These two elements are mainly used as a rewarding structure of the website. KPs and badges represent instant reward. Students are rewarded with digital badges when a specific number of KPs is earned. According to Santos et.al (2013) badges are seen as "symbols of recognition" that increase learners' engagement in learning activities.

**Levels**: Readtheory is characterized by a number of levels that are designed with a certain degree of difficulty.

**Feedback**: learners are provided with informational feedback. The main objective of this informational feedback is to indicate the degree of "rightness" or "wrongness" of the reading activity with an explanation for the right answer. There is a correlation between learner's

engagement and the immediate feedback; the more immediate the feedback is, the greater the learner engagement (Nah et al,2014)

However, we cannot assume that using game elements in themselves can provide the whole story: we need to think about how they contribute to the learning experience in Readtheory. In the following section, I will present a range of learning theories that I believe are associated with gamification and rationale behind using digital gamification in Readtheory as a gamified reading platform.

## 2.5 Learning Theories Behind using Readtheory.org as a gamified Reading Platform

### 2.5.1 Behaviourism Perspective

Behaviourism is one of the early theories that have great contributions to explain how the second language is acquired. It is based on the idea that learning is reinforced through rewards and punishments. "Reinforcement encourages the continuation of the response behavior" (VanPatten and Williams, 2014, p19). This theory fits well with the activities that are provided by the Readtheory as these activities include patterns of actions that are reinforced through rewards. If these (reading activities) responses received positive feedback (badges and KPs) they will be repeated. In this theory, learners are exposed to L2 and receive instant feedback (positive feedback through badges and points and correction for wrong answers). In other words, learning to read is done by encouraging learners through positive feedback. It must be noted that an important part of the behaviorism is that this process must be repetitive to help learners to create automatic and error-free reading skill.

### 2.5.2 Cognitive Perspective

As it was mentioned earlier, reading is a cognitive, mental process. Bearing in mind that automatic recognition skill is a central component for fluent reading, it has been widely given

much attention by cognitive psychologists (Grabe,1991). As a result, different processing models of cognitive psychology have been suggested to explore how learning takes place as a mental process.

According to Schneider and Shiffrin (1977) learning is a skill acquisition that is acquired through two stages:

**Controlled process**: learners need a great deal of meaningful repetition along with extended practice to shift to the next stage **(automatic process)** in which the skill is used automatically and without being controlled. As opposed to the automatic stage, the controlled stage is more time-consuming. This model is strongly compatible with Readtheory as a game-based website.

From cognitivist' point of view, practice and meaningful repetition play an important role in processing language. Similarly, learning to read requires more extended practice which takes considerable time on the reading task (DeKeyser, 2007; Grabe, 2009). This was clearly stated by (Grabe, 2009, p36): "learners need continual practice at word recognition... Such practice comes through reading as well as activities that highlight the attention to letter-sound correspondence, words and word parts, rapid identification of words, and a range of fluency activities "

However, it is important to keep in mind that not all kinds of practice and repetition make perfect. Successful language acquisition needs a meaningful practice that can effectively lead to developing the reading skill. This kind of practice is referred to as "deliberate practice "and it is considered as one of the underlying concepts behind the design of the Readtheory activities. As it was mentioned before, Readtheory provides students with a diagnostic test that can determine the actual level of language proficiency. By doing so, it places more emphasis on improving the current level of performance which is considered as one of the

most underlying principles of the deliberate practice theory that was suggested by Ericsson et al. and his colleagues (1993, p.367). It is defined as "activities that have been specially designed to improve the current level of performance". It is a process of continued practice to eventually master a skill with automaticity. According to Ericsson (1993), deliberate practice to master a skill is done by helping learners to be motivated by providing them with a meaningful task. This task is characterized by meaningful repetition with focus and appropriate degree of challenge. Instant feedback is considered as an integral part of the activities when they are practiced repeatedly. The instructional design of the Readtheory system is in line with this concept.

### 2.5.3 Input Perspective

Input is defined as "language that a learner is exposed to in a communicative context" (Gass and Mackey, p181). The role of input in language acquisition has been continually highlighted among learning theories as a driven force behind the acquisition. For behaviorists, the role of the input is highly important for the process of learning. Learners should be exposed to L2 (stimulus) modeled by their teachers to respond to language by repetition and imitation. On the other hand, for mentalists, the input is viewed as important to trigger the formation of an internal grammar or mental representation of linguistic competence that controls language production and performance (Blake, 2008, p.15). Perhaps the most influential theory among practitioners is the input hypothesis coined by Krashen who was influenced by the Chomskyan ideas about how language is acquired in the second language. Building on the fact that "humans acquire language in only one way by understanding L2 input", which he referred to as comprehensible input. He, Krashen further defined the comprehensible input with (1+i) which represents an input that is just slightly above the current level of language proficiency of a learner. In terms of reading

comprehension, the reading task should be designed to be appropriate and comprehensible to the level of the learner to be acquired. This hypothesis is very related to this current research with Readtheory website, especially that the website provides learners with a diagnostic test to check language level of learners before being involved with reading activities that are chosen according to their performance.

### 2.5.4 Sociocultural Perspective

The work of Vygotsky has greatly contributed to shaping an understanding of how language is learned in SL. From sociocultural perspective, language learning is facilitated by social interaction developed through to concepts; scaffolding and ZPD.

The idea of moving from one level to another with some kind of difficulty in the Readtheory platform in which students are required to apply more skills to master a new level is similar to the concept of scaffolding (Kapp,2012). Scaffolding refers to the assistance that is provided by the more knowledgeable other (expert to novice) to support the learning process. ZPD, on the other hand, represents the distance between what can a learner do individually and what he can do with the help of the more expert. A fundamental principle of this theory is that learners use mediatory symbolic tools such as language and materials artifacts such as technology to facilitate the learning process and develop the cognitive process. By using Readtheory, learners use the website as a tool to improve their reading comprehension and gradually they are scaffolded to read automatically.

### 2.6 Motivation and Autonomy in Gamification

A considerable amount of literature has been published on motivation concerning language learning. The concept of motivation in ELT is not straightforward as multiple perspectives need to be taken into consideration to define motivation. From a behavioristic perspective,

motivation is seen as rewards that reinforce behaviors while from a constructive view, the focus is on social context (interactions) and personal choices based on the fact that each individual is different with a different level of motivation to make learners act differently. For cognitivists, motivation is defined according to two theories: drive theory: motivation stems from basic innate drives (exploration, manipulation, activity, stimulation, knowledge and ego enhancement) and Self-control theory which emphasizes the importance of making decisions. To consider an example, learners tend to be more motivated when they are given more opportunities to make their own choices (Brown,2001). Simply put by Dornye (2001, p8) that motivation is "responsible for why people decide to do something, how long they are willing to sustain the activity, how hard they are going to pursue it"

Data from previous research on motivation mostly focused on external and internal motivation (Kapp et al., 2012). Intrinsic motivation stems from the activity itself for it is own sake when a learner experience pleasure and satisfaction while extrinsic motivation is derived from external factors such as money, prizes, and grades (Saville-Troike, 2016). Although most practitioners agree on the benefits of both extrinsic and intrinsic motivation on language learning, it is still a debatable concept in motivation. It seems that intrinsic motivation is more powerful and effective than extrinsic motivation since it leads to increased learning (Brown,2001, Deci and Ryan, 2011). According to Deci and Ryan (2011, p173), extrinsic motivation can have negative effects on intrinsic motivation. Kapp et al. (2012) indicate that a major concern about extrinsic motivation is when learners focus on extrinsic rewards, they are likely to pay less attention to the activities and the underlying concepts of learning and in turn, these extrinsic rewards reduce intrinsic motivation. Another problem is related to the associated behavior. When there is no reward, the behavior stops. However, extrinsic rewards

like badges and points can be effective to foster intrinsic motivation. These points and badges can provide learners with immediate feedback (Kapp et al., 2012).

Two theories are related to motivation with special reference to gamification;
Operant conditioning theory: which is more concerned with extrinsically motivated behavior. Skinner introduced OCT as a reaction to Pavlov model of classical conditioning, "the process of creating a conditioned response based on a particular stimulus" (Bentham, 2002, p.59). In OCT, specific consequences are associated with voluntary behavior. These behaviors are either rewarded to increase a behavior or punished to decrease a behavior. Operant conditioning is quite related to this context with the use of gamification. The use of the external rewards of points and badges in Readtheory is used to maintain the learner's interest which follows a fixed ratio of rewards that occurs when reinforcement is provided after a pre-selected number of quizzes and points are exhibited (Kapp et al., 2012).

The second theory is the Self-determination theory (SDT) which is more associated with intrinsic motivation caused by an activity or a task (Deci and Ryan, 2011). This theory looks at three universal psychological needs, placing more emphasis on internal factors that motivate learners to do an activity for its own sake. SDT elements include Autonomy: having the sense that you are responsible for your own actions and decisions and it is self-determined. Competence: positive feedback and communication and other elements that can refer to the desire to control and shape the environment and outcome. Relatedness; the feeling and the need for relatedness and the desire to interact with, 'be connected' to other people (Kapp et al., 2012).

Studies on motivation and reading comprehension emphasized the role of motivation as a significant element that leads to better reading engagement (Guthrie and Wigfield, 2000). Engaged reading is fostered by motivation in which readers are fully involved physically, mentally, and emotionally in the reading activity. Motivation plays an important role in developing reading comprehension. Intrinsically motivated students tend to be curious to read about a topic of particular interest for its own sake. Accordingly, they are more likely to have high degrees of autonomy because they take control of their choices and their desired activities (Wigfield,2004).

Researchers have pointed to the impact of gamified learning on increasing learner's motivation in language learning (Kapp, 2013; Whitton and Moseley, 2012). Alfulaih (2017) investigated the impact of the gamified EFL classes on developing Saudi female students speaking skill and more specifically whether implementing gamification can affect student's motivation and attitude. Participants of this study were 50 students at Saudi Electronic University. The study found that implementing gamification activities positivity improved the level of students' motivation and their attitudes to learning the language. It was strongly recommended to implement gamification into learning contexts to stimulate students' motivation and enrichen their attitude towards English learning.

Additionally, intrinsic motivation has been found to increase in gamified apps. Astarilla (2018) researched student's attitudes toward Duolingo, a gamified app to learn English. He found out that students had a positive attitude toward learning English through the app due to its ease of access and its ease of use. Additionally, it was found that the use of badges and (lingots = points) in Duolingo stimulate students' intrinsic motivation.

As regards motivation within foreign language learning specifically, many studies have found relatively high levels of correlation between intrinsic motivation and autonomy (Deci and Ryan, 2011; Nakata, 2006). Autonomy is defined as "the capacity to take control over one's own learning" (Holec, 1981, p.3). For Holec (1981) the main goal behind autonomy is that learners take the responsibility of their learning rather than be dependent on the teacher. An alternative view of autonomy is termed by Little (1991.p.4) and refers to both willingness to take responsibility for one's own learning and also the ability to reflect critically, make decisions and take independent actions about learning. In literature, the concept of autonomy is related to other terms including self-regulated learning, learner independence, student-centered learning, self-directed learning, and independent learning.

There is a general agreement among practitioners that independent learning, "Self-regulated learning "as defined by Meyer (2010, p1), is the key to learning languages with the long-term aim of increasing learner autonomy (Benson, 2011). SDT as discussed earlier emphasizes the need to be autonomous learners taking into account that autonomy is a key concept to increase learner's motivation. Zimmerman (1989) argues that self-regulated people are seen as being, motivationally and behaviourally active in their own learning processes. Nakata (2006) supports this idea that successful learners are those who take charge of their learning. Similarly, Ushioda (1997) sees autonomous learning as an equivalent to self-motivation in language learning and he further explains that Intrinsic motivation (learning because learning is enjoyable) and self-motivation (regulation) are two important concepts that interface with autonomy. From Benson' point of view (2011), autonomy is the outcome of the practice of independent learning.

The capacity to learn a language with a high level of motivation and autonomously has long been widely acknowledged as one of the main goals in the world of language learning especially with the considerable interest in gamification in language classroom. As mentioned previously, the implementation of gamification can shift the attention from Teacher-centred learning to Student-centred learning allowing learners to take control of their own learning and create their own learning paths. Sykes and Reinhardt (2012) argue that autonomy can be promoted in language class through gamified resources that implement gamification elements to its structure to allow learners to make choices and decisions. Similarly, Goodwin-Jones (2011) mentions that mobile apps that have elements of gamification which aim to improve learner's agency to make decisions on their own can effectively foster learner autonomy in language learning. Rosell-Aguilar's study (2018) looked at Busuu app use with 4095 users who used Busuu to learn languages autonomously. The study found that most users are at the beginner level who learn for personal interest to improve the language they are learning. This study refers to the importance of gamified apps for allowing beginners to take the first steps to be independent learners as well as the fact that these apps can be a good supplement for language learners who are looking for more opportunities to practice.

In parallel to autonomy, gamification can be used as a powerful tool to increase self-motivation. On a case study conducted by Ibáñez, Di-Serio, and Delgado-Kloos, students showed a positive attitude toward gamified learning tasks and they were more engaged in the learning concepts. It has been noticed that although students earned high scores, they kept working on their activities as they were cognitively engaged in the gamified experience.

In this study, Readtheory.org. was chosen as an inside and outside of class gamified activity to motivate students to take the responsibility of their own learning, to take the intuitive to develop their reading skills independently everywhere and anytime.

In light of the previous research studies dealing with motivation and autonomy with the background of gamification as a neglected area in the field of EFL language learning, the need for more research in this area in the Saudi context hardly needs to be explored since previous studies of gamification have not dealt with gamified reading in EFL context. The current study, therefore, takes a new look on the gamified reading which may be able to offer useful insights about how the integration of Readtheory.org as a gamified reading platform can be expected to be of practical interest to teaching and learning practitioners working on motivation and autonomy and may be used for improving existing language teaching methods.

**Chapter Three: Research Methodology**

In this chapter, the details of data collection process will be presented including the research questions, how this research was designed, a brief description of the research participants, what tools were used when, where, how the students' questionnaire and interviews were conducted and how data was collected and processed.

**3.1 Research Questions**

This study aimed to address the following questions:

1. What are EFL learners' attitudes towards the use of Readtheory website as a game-based learning platform?

2. To what extent do EFL learners think that Readtheory.org helps them to improve their reading skills?

3. To what extent do game elements of Readtheory (badges and KPs) motivate students to use the platform?

4. Does Readtheory motivate EFL learners to be independent learners? If yes, how does it motivate them to be independent?

**3.2 Research Design**

This research employed a mixed-method approach and the data for the study was collected through a questionnaire and an interview. This study follows four main stages as shown in figure 1. The first stage required participants to work on Readtheory program for two months and the goal was to complete at least 40 reading quizzes as students were encouraged to use the website inside and outside language classroom. Stage two and three consisted of the distribution of a questionnaire and conducting interviews with four YELI female students. Both Stage 2 and 3 were conducted by the end of the semester.

Figure 1: Research Design



**Stage 1**
- Working on Readtheory for two months
- completing at least 40 reading quizzes

**Stage 2**
- The Questionnaire (50 participants)
- Responding to the Questionnaire
- Analysis of the Questionnaire

**Stage 3**
- The Interview (4 Participants)
- conduction interviews
- Analysis of the Interview

**Stage 4**
- Interpretation Based on both questionnaire and interviews
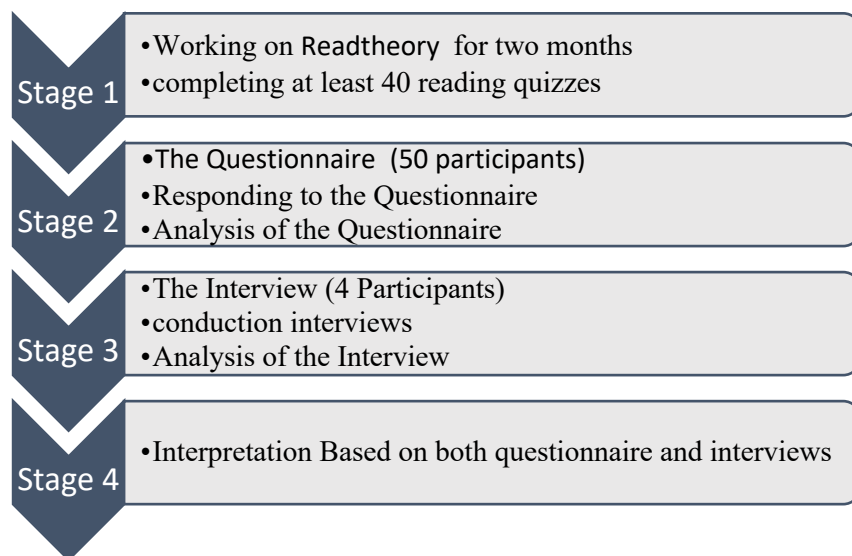
The questionnaire was chosen for this study because it is known as a time-efficient way of collecting data from a large number of participants (O'Leary,2014). Also, questionnaires are easy to analyze. It must be mentioned that the questionnaire in this study consisted of Likert-scale that was mainly used for two reasons, first, it is easy to use and understand by students and it is known for its reliable and effective results (Anderson, 2005). Besides, an interview was used to triangulate the data and was used as a follow up to participants' responses after the questionnaire. According to McNamara (1999), interviews are useful to collect data because they allow the interviewer to collect more information around the topic.

**3.3 Participants**

Students involved in this research study English as a core module for the foundation year to be prepared for the following years of study in which English is used as a medium of instruction. The participants in this study were 50 female students aged 18-23 years old. All of the participants were female who had gone through English for six years of the public-

school system.  They were at the intermediate level of English proficiency (according to the placement test that was conducted by YELI to determine student's level of proficiency) studying English at YELI, KSA in the academic year 2018-2019. All the participants were taking English classes for 4 hours a day; 2 hours in the classroom and the other two hours were in the language lab where students were allowed to use computers and their own devices to practice English. They were familiar with using Readtheory.org which was part of language classroom experience.

Table 2 shows the participants in this study from four sections A, B, C, D. Figure 2 shows the number of the completed reading quizzes and the earned KPs they had completed in Readtheory.

Table 2: Participants of the Study.

| Sections | No. of Students |
|---|---|
| Section A | 18 |
| Section B | 13 |
| Section C | 8 |
| Section D | 11 |
| Total | 50 |

Figure 2: Class Progress Report: Group A, B, C, D
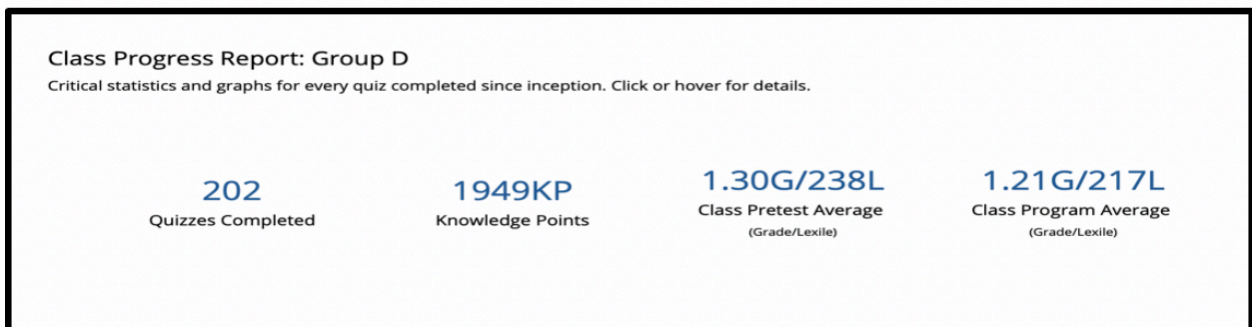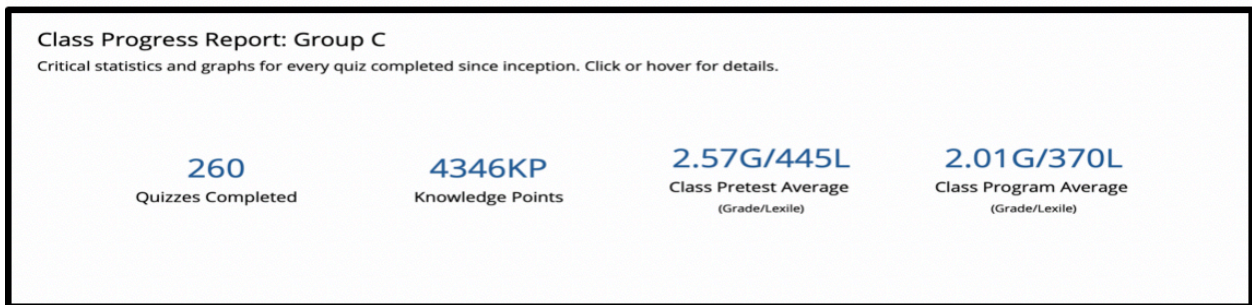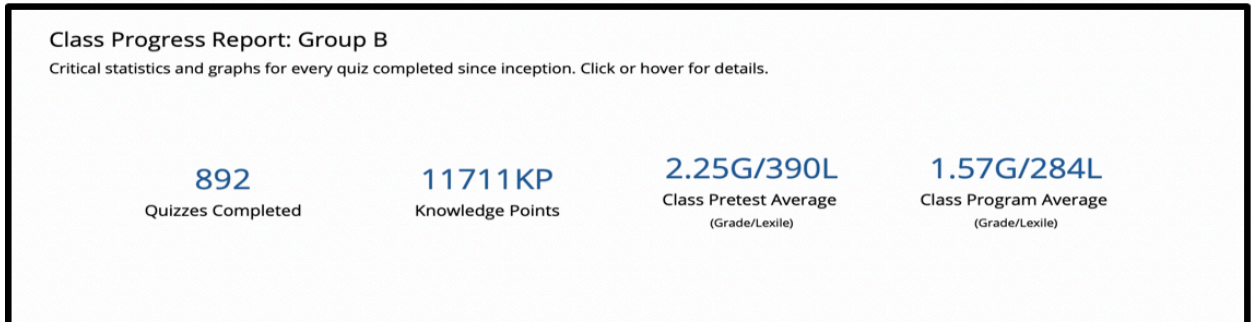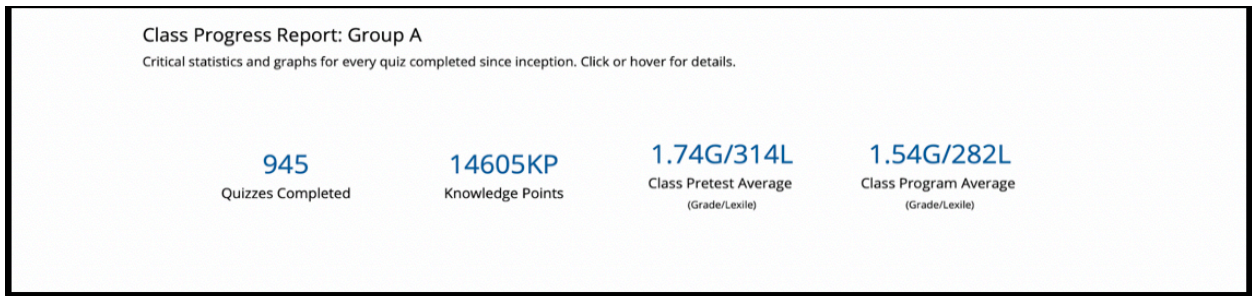
**3.4 Research Tools**

To collect data for the study, and more thoroughly understand students' attitudes, motivation autonomy toward Readtheory, a questionnaire, and an interview were developed after a review of previous studies on gamification.

**3.4.1 The Questionnaire**

The questionnaire consisted of four sections that covered personal information, motivation, independent learning, and general questions. The data was collected from participants using google forms. The first section of the questionnaire elicited respondents' demographic information related to age, gender. etc. The second section was about motivation. IMI Intrinsic motivation inventory created by Ryan & Deci (2000) was used to measure the effect of intrinsic motivation toward using readtheory.org. Twenty intrinsic items were used to address the following question; to what extent do elements of gamification of badges and KPs affect student intrinsic motivation about using Readtheory.org. The third section was about independent learning and students were asked to respond to 5 items. A five Likert scale ranging from 5 strongly agree to 1 strongly disagree was used for both section two and three for responding to the questionnaire. Section four of the questionnaire consisted of a number of open-ended questions that sought to elicit participants' attitudes toward Readtheory.org. Respondents were allowed to provide their own responses in English or Arabic. Their responses were carefully examined and categorized.

**3.4.2 The Interview**

 Four students participated in the interview and it was conducted by the end of the semester. The interview started with questions regarding their attitudes toward the reading platform. Following this, they were asked about their views about the advantages and the disadvantages

of the Readtheory. Additionally, they were asked to describe their experience with Readtheory s' badges and KPs as positive or negative and explain why. A transcription of responses of each of the four participants is provided in Appendix C.

## 3.5 Data Collection Procedure

The study was conducted in 2 months and 50 female students participated in this study. A request was sent to five teachers to agree on including their students as participants for the current research. Four sections participated in this research and 50 students were asked to work on the Readtheory for 15 minutes as part of everyday class experience. All the participants were taking English classes for 4 hours a day. Teachers implemented a bring-your-own-device model in their classrooms and the learners were allowed to access the program from their own devices. The data were generated quantitatively and qualitatively from the participants. The data was gathered quantitatively at the end of the semester using a questionnaire. Each participant was offered an information sheet and a questionnaire about the study which were translated to participants' native language (Arabic) to avoid misunderstanding. The participants were reminded that if they felt uncomfortable at any point, they are allowed to ask not to complete the questionnaire and that their answers would not be shared with anyone and it will be completely anonymous. Additionally, to triangulate the data, the views of four students using Readtheory were collected. The interview was carried out at the end of the semester and the data was analyzed qualitatively. Four students were selected for the interview stage of the research. The interview was made over skype and was transcribed.

## 3.6 Data Analysis

The quantitative data (the questionnaire) was subjected to descriptive analysis including mean and standard deviation along with percentages, which were computed to identify learners' attitudes, motivation, and autonomy using Readtheory. The collected data is statistically analyzed using statistical software for social sciences (SPSS). While the qualitative data (the interview and the open-ended questions) was analyzed using thematic analysis. Several steps were followed to analyze data. First, participants' responses were transcribed. I read the transcripts by first browsing all the transcripts as a whole and made some notes to make first impressions, and then I reread the transcripts. Second, I started to label and highlight themes from the transcriptions to develop these themes to themes and subthemes. Finally, a revision was made for the relevant themes to be included in the study.

**Chapter 4: Findings and Discussions**

The findings and discussion of the main findings are presented in this chapter in relation to the research questions. Based on the research questions, findings are categorized into four sections: section one looks at EFL learners' attitudes towards the use of Readtheory as a learning platform. Section two investigates how Readtheory contributed to the improvement of reading skills for EFL learners and section three explores the impact of game elements of Readtheory on EFL students' motivation. Finally, section four examines the impact of Readtheory on students' autonomy.

**4.1 EFL Learners' Attitudes Towards the Use of Readtheory.org as A Learning Platform.**

To explore their perceptions and attitudes, participants were asked to respond to three questions as illustrated in (Figure 3). As the majority of participants have responded to all the three statements positively, (94%) agreed that readtheory.org motivated them to read and developed their language skills. (90%) reported that they did not face any problems when using the website. (90%) showed a high level of agreement that they would strongly recommend Readtheory.org to their friends.

Figure3: Students' Perceptions Toward Readtheory.org



Students' Perceptions and Attitudes toward Readtheory.org
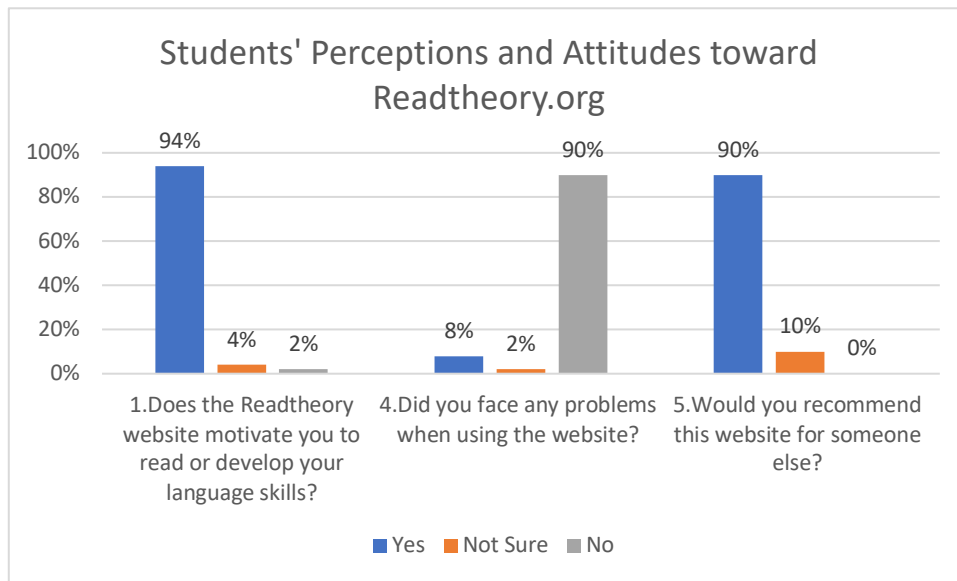
Additionally, participants were provided with a comment space to give reasons that motivated them to use Readtheory to practice reading and 50 students responded to this question. The majority of participants reported that they were highly motivated because they can get easy access from anywhere or from any electronic device (74%); have fun with it (64%); improve their reading skills (68%); it is easy to use (62%); can see their earning points (58%) and have badges (56%). Furthermore, around half of the participants reported that it is better than traditional ways of reading practice and can compete with others (44%). A few participants further reported that they were motivated because reading passages are short and interesting, and the website provides continuous practice (12%). The majority of the participants agreed that the website was very motivating ;(68%) were motivated because the website helped them to improve their reading skills and (68%) were motivated because it is enjoyable. Almost half of the participants mentioned that they were motivated to read by external elements of badges and similarly (48%) were motivated by the KPs.

Participants were asked to respond to an open-ended question: "Do you have any suggestions for the improvement of the website?". Several participants suggested changing the type of questions to be more interesting and fun questions. Their comments suggested the use of additional features such as video materials and audio to stimulate their reading ability. Additionally, some participants requested to have an application for Readtheory.org for easy access along with adding off-line access to reading materials. Surprisingly, a majority of participants demonstrate a desire to have more gamification elements such as adding more levels and allowing learners to view these levels along with the number of the KPs, creating online competitions like Kahoot to be more engaging, enabling learners to share the digital badges through creating online badges and adding online scoreboards to compete with other learners from outside language classroom.

Similar findings emerged through interview. When asked if they like the Readtheory, all of them agreed that they found the website very useful to improve their reading skill: "*Yes, I like it very much. It is interesting*" (Student B); "*Yes, because it is fun and interesting. I feel happy because I practice with my friends*" (Student C); "*Yes, because it is easy and simple.* "(Student D). Furthermore, the interviewed students reported different benefits for using Readtheory: It enhances writing and correct spelling, it motivates students to read, it is accessible from anywhere, it is fun, and it matches learners' reading level. Only two students from the interview group stated that *"the questions are long and boring"* and that the website "*does not have games [online competitions] like Kahoot*".

Discussion of the findings

Apparently, both the qualitative and quantitative data above suggest that students had positive attitudes towards the integration of Readtheory into the reading experience as it was also

claimed by all of the participants who were very positive and agreed that they liked using the website. They described it as "*fun and interesting- simple and easy to use*". Readtheory was identified as a useful platform for language learners because it is easy to access and easy to use. It was observed that the majority of the participants found it a better alternative than traditional ways of reading practice. The major benefits of Readtheory are that the reading passages match students' level and are easy to access. The findings of the current study are consistent with those of Tempest (2018) who stated that the two features of the website; ease of access, and level adjustments had a positive impact on student's reading.

The findings from this section suggest that there was a general agreement among participants that the website was motivating. Their comments suggest that they were intrinsically and extrinsically motivated to read using Readtheory. They were mainly motivated because the website helped them to improve their reading skills which is one of the basic psychological needs for competence in SDT suggested by Deci and Ryan (2011). Another example of intrinsic motivation is when students engage in reading activities provided by the readtheory.org for fun and enjoyment. There was strong evidence for extrinsic motivation because students were motivated to read by external elements of badges and KPs. These findings are consistent with Mork (2018) who found that students are extrinsically motivated to do Readtheory activities. Thus, it can be concluded that the use of Readtheory.org in English language classroom was successful to cultivate high levels of motivation among EFL learners.

However, they provided a number of suggestions to improve the program such as adding more features for easier access and improving the features of the gamification elements of the platform. Several participants expressed a willingness in making decisions about the type of

questions "*We need more interesting and fun questions"* and the topics when using the program.

Surprisingly, a majority of participants demonstrate a desire to have more gamification elements such as adding more levels and allowing learners to view these levels along with the number of the KPs, creating online competitions like Kahoot to be more engaging, enabling learners to share the digital badges through creating online badges and adding online scoreboards to compete with other learners from outside language classroom. Overall, the above data provided insightful evidence that research participants as digital natives show a positive attitude toward gamification elements and are willing to integrate them into their learning.

**4.2. Improvement of Reading Skills Through Readtheory.Org**

To address the second research question (To what extent do EFL learners think that the Readtheory.org helps them to improve their reading skills?), participants were provided with two questions regarding the improvement of reading skills through Readtheory.org. Question 1 (Figure 4) related to whether Readtheory.org supported students to develop other language skills. (68%) agree on the fact that using Readtheory.org improved other language skills of writing, listening, and vocabulary while (12%) stated some form of disagreement. In terms of reading skill, (88%) agreed that Readtheory.org was helpful to improve their reading skills with only (4%) disagreed with this claim.

Figure 4: Improvement of reading skills through Readtheory.org



**IMPROVEMENT OF READING SKILLS THROUGH READTHEORY.ORG**

■ 2.Do you think the Readtheory supported you to develop your language skills?
■ 3.Overall, do you think this website was helpful to improve your reading skill?

- YES: 68%, 88%
- NOT SURE: 20%, 8%
- NO: 12%, 4%
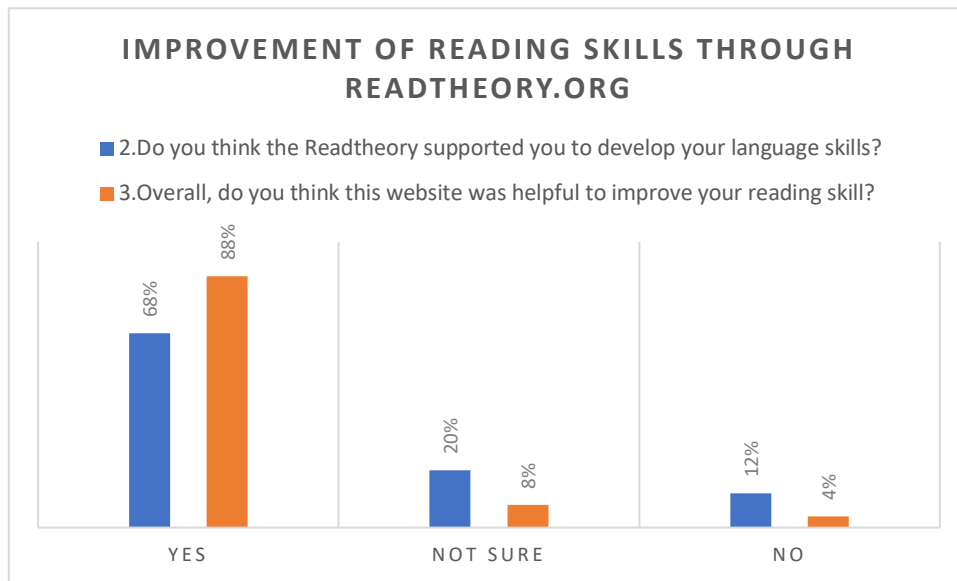
Participants were provided with an open-ended question and they were asked how the program supported them to develop their reading skills. Few participants responded that the website provided them with interesting and short passages and because of that they practice reading continuously (12%). Most students stated that their reading skill improved because the website provides them with activities that are appropriate to their level (40%). Nearly half of the participants commented that the reading quizzes in the readtheory.org do not need a lot of time to be completed which encouraged them to practice more (42%). Only (4%) of students mentioned that being able to practice reading independently supported them to improve reading skills. Comprehending meaning easily and quickly was one of the ways that helped (30%) of students to improve reading skills by using Readtheory.

Interestingly, all the interviewed students strongly agreed that Readtheory was very helpful to improve their reading skill. They positively commented on how Readtheory helped them to improve their reading skill. They stated that it expands and familiarizes students with new vocabulary, it fosters reading comprehension, it enhances writing skills, increases vocabulary

knowledge, it enhances comprehension and motivates learning.  Two students mentioned that

"*I can develop my reading skills independently*"


*Discussion of the findings*

As shown through the students' questionnaire as well as through the interview, all

participants perceive Readtheory.org as a beneficial program to improve their reading skills.

Interestingly, all the participants positively agreed that the website was very helpful in

developing their vocabulary, spelling, writing and reading comprehension. These findings

reinforced previous research that daily reading practice will develop other language skills of

writing and it will affect other language areas like vocabulary and spelling positively as

learners will be more familiar with the language and their vocabulary will increase as well

(Bamford,2004). However, despite the results obtained, actual student reading performance

and perceptions of students about improving other language skills of spelling and writing

need more accurate investigations. The concept of fluent reading came up when some

students reported in both the questionnaire and the interview that the website provided them

with repetitive, daily practice that helped them to comprehend meaning easily and quickly.

Furthermore, the majority of participants reported the characteristics of the program of

(providing interesting, easy and short reading quizzes on a variety of topics, continuous

practice, and allowing them to practice independently) supported them to develop their

reading skills. It must be noted that these characteristics are similar to some of the principles

highlighted by Bamford and Day (2002) for a successful reading program. Finally, A hint for

autonomy was found as students stated that the program helped them to develop their skills

independently.

**4.3 Game Elements of Readtheory.org and Students' Motivation**

In order to address the third research question (To what extent do game elements of Readtheory (i.e. badges and KPs) motivate students to use the platform?), 20 different statements were included in the questionnaire where the first 10 were related to the element 'Badges' and the rest statements were related to the element 'KPs". Each of them has been discussed below.

**4.3.1The Use of Digital Badges**

Based on the results from Table3, half of the participants (50%) agree that badges motivated them to use the website. However, around (40%) showed a neutral response for putting a lot of effort into earning digital badges. More than a third of the surveyed reported that it was very important to them to do well at earning digital badges (38%), and just over a third were neutral about trying hard to earn digital badges (38%). Nearly half of the participants found the use of badges was fun (44%) and they described earning badges as very interesting (40%). Most participants stated that badges made them want to keep working (42%) and that badges motivated them to work harder (36%). The overall mean score for the use of badges is 3.70 which indicates that the surveyed participants are highly motivated to use badges.

Table 3: The use of Digital badges and students' motivation for learning

| Statements | SA | A | N | D | SD | Mean | Std | Result |
|---|---|---|---|---|---|---|---|---|
| 1. I am interested and motivated by the reading badges. | 24% | 50% | 14% | 8% | 4% | 3.82 | 1.023998 | Agree |
| 2. I put a lot of effort into earning digital badges. | 8% | 40% | 42% | 8% | 2% | 3.60 | 0.886405 | Neutral |
| 3. It was important to me to do well at earning digital badges. | 24% | 38% | 22% | 10% | 6% | 3.82 | 1.096190 | Agree |
| 4. I tried very hard to earn digital badges. | 14% | 26% | 38% | 14% | 8% | 3.32 | 1.096190 | Neutral |
| 5. Earning this digital badge was fun. | 26% | 44% | 20% | 2% | 8% | 3.84 | 1.094700 | Agree |
| 6. I would describe earning this digital badge as very interesting. | 22% | 42% | 22% | 10% | 4% | 3.88 | 1.073807 | Agree |
| 7. Attempting to earn badges held my attention | 26% | 24% | 28% | 14% | 8% | 3.46 | 1.248836 | Neutral |
| 8. I told others about my badges earned in this course. | 20% | 30% | 34% | 8% | 8% | 3.46 | 1.146601 | Neutral |
| 9. The badges made me want to keep working. | 30% | 42% | 18% | 4% | 6% | 3.86 | 1.088155 | Agree |
| 10. The badges motivated me to work harder. | 36% | 32% | 20% | 6% | 6% | 3.92 | 1.149268 | Strongly Agree |
| Total | | | | | | 3.70 | | |

For the interviewed participants, badges were very interesting, and they expressed that they were highly motivated because of their desire to get these badges when completing a reading quiz. Although three described them as fun and interesting, two of them felt it was difficult to get these badges.

**4.3.2 The Use of Knowledge Points (KPs)**

As shown in table 4, more than a third were motivated by the KPs (34%) while (38%) were neutral about putting a lot of effort into collecting KPs. Almost two-thirds strongly agreed that collecting KPs was very important to them (64%). More than a third strongly agreed that KPs were fun (36%) and they found them very interesting (32%). Similar to their responses toward badges, students showed neutral responses to item 7 and 8 and were very positive toward items 9 and 8 that around (40%) strongly agree that KPs made them want to keep working and (34%) strongly agree that KPs motivated them to work harder. The overall mean score for the use of KPs is 3.73 and it indicates that the surveyed participants are highly motivated by the KPs.

Table 4: The use of KPs and students' motivation for learning

| Statements | SA | A | N | D | SD | Mean | Std | Result |
|---|---|---|---|---|---|---|---|---|
| 1. I am interested and motivated by the KP. | 32% | 34% | 26% | 6% | 2% | 3.88 | 1.002853 | Agree |
| 2. I put a lot of effort into collecting KPs. | 26% | 22% | 38% | 8% | 6% | 3.54 | 1.146601 | Neutral |
| 3. It was important to me to collect KPs | 32% | 32% | 30% | 4% | 2% | 3.88 | 0.982292 | Strongly Agree |
| 4. I tried very hard to earn KPs. | 22% | 26% | 38% | 10% | 4% | 3.52 | 1.073617 | Neutral |
| 5. Collecting KPs was fun. | 34% | 32% | 26% | 4% | 4% | 3.92 | 1.065986 | Strongly Agree |
| 6. I would describe collecting KPs as very interesting | 32% | 30% | 30% | 2% | 6% | 3.82 | 1.082137 | Strongly Agree |
| 7. Attempting to collect KPs held my attention | 22% | 24% | 40% | 6% | 8% | 3.46 | 1.146601 | Neutral |

| 8. I told others about my KPs in this website. | 22% | 28% | 34% | 14 % | 2% | 3.54 | 1.053856 | Neutral |
|---|---|---|---|---|---|---|---|---|
| 9. The KPs made me want to keep working. | 40% | 24% | 30% | 2% | 4% | 3.94 | 1.076843 | Strongly Agree |
| 10. The KPs motivated me to work harder. | 34% | 24% | 32% | 8% | 2% | 3.80 | 1.069045 | Strongly Agree |
| Total | | | | | | 3.73 | | |

From the interview, two students described collecting KPs as very fun and that it held their attention. One of the interviewed participants described the addition of KPs as very motivating.

Discussion of the findings

The results of the questionnaire and the interview for both the use of badges and KPs show a remarkable level of motivation. It was found that students were intrinsically motivated by the readtheory.org. First, results from IMI questionnaire regarding the use of badges indicated that students were highly and intrinsically motivated by the use of badges with a total mean of 3.70. Second, the researcher noted that the results revealed from the use of KPs were surprisingly similar to the use of badges. Like badges, a total mean of 3.73 was found to show how students were motivated by the use of the KPs. Several findings above were in line with Astarilla (2018) who stated that the use of badges and (lingots = points) in Duolingo stimulate student's intrinsic motivation in relation to progress and mastery while learning a language. This proves that the use of gamification elements of badges and KPs increased student's motivation which is consistent with the findings from previous studies (Gibson et al., 2013; Santos et.al, 2013; Brewer et al., 2013, DomíNguez et al., 2013).

## 4.4 ReadTheory.org and Learner Autonomy (Independent Learning)

In order to address the research question; (To what extent does the Readtheory motivate EFL learners to be independent learners?), three instruments were used, the questionnaire, the interview and the percentage of completed Quizzes on Readtheory.org obtained from the Readtheory.org analytics were considered and illustrated in figure 3. Based on participants' responses, the majority of students agreed that Readtheory is enjoyable to practice reading (40%). Most students strongly agreed on the impact of this enjoyment on their independent learning that the use of Readtheory helped them to improve their reading skills independently (34%). Although (36%) were neutral with spending more time practicing reading on Readtheory than traditional teaching of reading, over a third of those surveyed strongly agreed that they practice reading using Readtheory more than what is required (36%), and similarly (34%) strongly agree that they would use Readtheory to practice reading skills after the course is over.

Table 5: Descriptive analysis for student's Independent Learning through Readtheory.org

| Statement | SA | A | N | D | SD | Mean | Std | Result |
|---|---|---|---|---|---|---|---|---|
| 1. I enjoy learning to read using this website. | 28% | 40% | 24% | 4% | 4% | 3.84 | 1.017400 | Agree |
| 2.The use of Readtheory has helped me to improve my reading skills independently. | 34% | 30% | 26% | 6% | 4% | 3.74 | 1.103057 | Strongly Agree |
| 3.I would rather spend more time practicing my reading on the Readtheory than traditional teaching of reading | 32% | 16% | 36% | 10% | 6% | 3.60 | 1.228904 | Neutral |
| 4. I practice reading using the Readtheory more than what is required. | 36% | 14% | 30% | 18% | 2% | 3.66 | 1.153699 | Strongly Agree |
| 5. I will use Readtheory to practice my reading skills after this course finishes. | 34% | 26% | 30% | 6% | 4% | 3.80 | 1.106567 | Strongly Agree |

In addition to the questionnaire, data from Readtheory.org about the percentage of completed Quizzes on Readtheory in two months (Total of 44 Quizzes) was also analyzed to investigate how the platform motivated EFL learners to be independent learners. The researcher asked the participants to take one reading quiz in Readtheory (Inside language classroom) a minimum of 15 minutes in a day. In addition, participants were encouraged to use the website outside language classroom independently. The results are shown in Table 6. In fact, there were several participants (10%) did not open Readtheory as suggested by the lecturer. Half of the students completed less than the required number of quizzes through the Readtheory (50%) while only one (2%) completed the required number of 44 quizzes. Fortunately, there were many (38%) completed more than the required number of quizzes through Readtheory.

Figure 5: Percentage of Quizzes completed in two months (Total of 44 Quizzes)
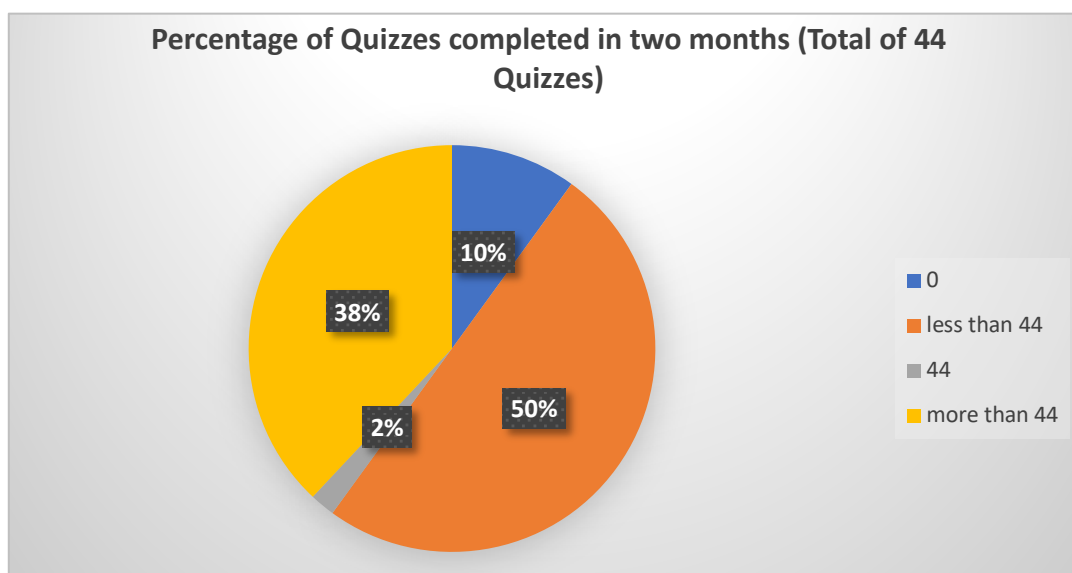
Table 6: Percentage of completed Quizzes on Readtheory.org in two months (Total of 44 Quizzes)

| Sections | 0 Quizzes | Less than 44 quizzes | 44 Quizzes | More than 44 | Total No. of students in each Section |
|---|---|---|---|---|---|
| Section A | 1 | 10 | 0 | 7 | 18 |
| Section B | 1 | 3 | 1 | 8 | 13 |
| Section C | 1 | 4 | 0 | 3 | 8 |
| Section D | 2 | 8 | 0 | 1 | 11 |
| Total | 5 | 25 | 1 | 19 | 50 |

Data from the interview revealed that the participants had a sense of autonomy in terms of taking independent actions and decisions about their learning. When asked how much time they spent to read and complete reading quizzes, two participants reported that they use it daily for an hour because they found it easy and fun while the other two participants mentioned that they use it continuously to practice reading. Three claimed that they enjoyed using it and two of the participants further explained that they used it to have more practice for final exams. Three out of four intend to continue reading on the website after the course finishes.

Discussion of the findings

The results from the questionnaire and the interview along with the analytics from Readtheory.org reports (illustrated in Figure 4) indicate that they, on the whole, displayed characteristics of independent learners. It was found that the majority of students were able to take more responsibility for their own learning and work independently to complete reading quizzes more than what is required from them and that the use of Readtheory helped them to improve reading skills independently. This proves that there was a sense of autonomy amongst participants. Also, students were able to set goals for their learning as they read to practice for their final exam. Additionally, strong evidence of autonomy was found when students reported that they intend to use Readtheory to practice reading skills after the course finishes. It must be noted that almost half of participants from the questionnaire and three in

the interview reported that they enjoyed learning to read using this platform because it is fun

and interesting which also indicates that there is a correlation between intrinsic motivation

(enjoyment) and learner autonomy as stated in previous studies (Ushioda, 1997; Nakata

2006).

**Chapter Five: Conclusion**

To conclude this study, the main findings of this research will be summarized, a number of

limitations will be acknowledged, and recommendations will be offered for future studies.

**5.1 Summary of The Findings**

As shown through the findings of the study, all participants appeared to have a positive

attitude towards the use of Readtheory website as a game-based learning platform. Students

perceive Readtheory as a beneficial website to improve their reading skills. They found it

easy to access from anywhere and anytime, better than traditional methods of reading

practice, and the topics along with the reading activities were adjusted to their level.

Moreover, they liked the fact that it provides continuous, a daily practice which can increase

their fluent reading. There was a general agreement from the majority of the participants that

the website helped them to improve reading and other language skills. However, they

provided many suggestions to improve the website such as adding more features for easier

access and improving the features of the gamification elements of the platform. The

responses from all instruments prove that students were intrinsically motivated by the

gamification elements of the platform. Overall, the program also revealed some of the

characteristics of successful reading programs. Evidence for the existence of both intrinsic

and extrinsic motivation was provided. Students were extrinsically motivated by the external

elements of the website and intrinsically motivated as they engaged in the activities of the

website because they are fun and enjoyable. It was found that the students had some

characteristics of independent learners as Readtheory helped students to take more

responsibility of their learning to practice reading independently and they were intrinsically

motivated to read because the website was enjoyable. Also, they were able to make decisions

about their learning when they demonstrate a desire to have more gamification elements and

further, they expressed a willingness in making decisions about the type of questions provided in the website.

## 5.2 Implications of the Study

Since the findings of this study revealed that the integration of gamification into reading instruction (Gamified reading experience) can improve reading as well as increase learners' motivation, and foster their independent learning, a number of potential implications arise. These findings should be of importance for EFL learning| teaching in KSA. First, it contributed to identifying some characteristics of the successful reading program that can increase students' motivation and autonomy to practice reading which mainly include the integration of reading to gamification elements. This gamified reading is adjusted to the learners' level, enjoyable and easy to access. Additionally, it can support fluent reading and independent learning using the website inside and outside the classroom. This implementation of gamification to reading may help to improve students' reading because it helps learners to have positive attitudes toward the learning process and therefore, increases motivation and enhances language development. Therefore, this study advises the curriculum designers in KSA to adopt gamification elements which might help in designing an effective reading program.  A reading program that does not only increase learners' motivation but also help students to become independent readers during their study.

## 5.3 Limitations and Recommendations for Future Research

In light of the findings reported here, a number of limitations are acknowledged, and recommendations are offered for future studies:

1. This research was conducted to a sample of 50 foundation year university students and the findings reflect the responses of their motivation and autonomy; therefore, it

cannot be generalized to other contexts. Similar research could be carried out to include a larger number of participants of various proficiency levels.

2.  The research was developed to explore learners' attitudes, motivation, and autonomy toward the gamified reading platform. Further studies are required to investigate the effectiveness of the readtheory.org as an ERP for EFL Saudi students.

3.  Since the study revealed that Readtheory was useful to improve writing and vocabulary, further studies are needed to investigate its effectiveness in improving other language skills with more accurate results.

4.  The current research focused only on one gender (females), it would be interesting to consider gender as a variable in forming a comparison between the attitudes of male and female on using Readtheory.

5.  The study focused on the impact of two gamification elements of badges and KPs on student's' motivation. More work could be done to measure the impact of other gamification elements of Readtheory (levels and feedback) on motivation and autonomy.

6.  The main focus of this study was implementing gamification to reading instruction. More studies could be carried out to implement gamification to other language skills.

7.  The main limitation of this study that should be taken into consideration was the limited number of researches on online or gamified reading, so more research is needed to better understand gamified reading experience.

## 5.4 Conclusion

This study set out to investigate the attitudes and perception of 50 undergraduate students toward the gamified reading platform, Readtheory. In this investigation, the aim was to measure their motivation and explore their independent language learning. Both qualitative

and quantitative data were analyzed to understand how students perceive the gamified platform for improving reading comprehension. The analysis indicates that in general students perceive Readtheory as a useful website for the enjoyment it provides, ease of access and that it is the best alternative to other traditional methods of reading. Most students supported the fact that the gamified website helped them to improve the language skills of reading and writing and other language areas of vocabulary and spelling. It was also shown that students were highly motivated by the game elements of badges and KPs and by their desire to enhance their reading comprehension. One major finding emerged from the study is that students had some characteristics of independent learners; they set goals for their learning, they took more responsibility of their learning and they were intrinsically motivated to improve their reading skills. The findings of the current study may help the curriculum developers to improve the current curriculum of reading to adopt gamification that could meet learners' needs and wants. The findings of this study could also be used to improve English teachers' views about students' motivation and attitudes toward gamified reading experience.

## 6. References

AL-Homoud, F. and Schmitt, N., (2009). Extensive reading in a challenging environment: A comparison of extensive and intensive reading approaches in Saudi Arabia. *Language Teaching Research*, *13*(4), pp.383-401.

Alfulaih, W.K., (2017). *Gamified Saudi EFL Classes I*. Doctoral dissertation, Al-Imam Muhammad Ibn Saud Islamic University.

AL-Nafisah, K. (2015). The effectiveness of an Extensive Reading Program in Developing Saudi EFL University Students' Reading Comprehension. *Arab World English Journal (AWEJ),*6.

AL-Qahtani, A. (2016). Why do Saudi EFL Readers Exhibit Poor Reading Abilities. *English Language and Literature Studies,*6**,** pp1-15.

Alshumaimeri, Y. (2017). The Effects of Reading Method on The Comprehension Performance of Saudi EFL Students. *International Electronic Journal of Elementary Education,*4**,** pp185-195.

Alsubaie, M. A. A. (2014). *An Exploration of Reading Comprehension Challenges in Saudi Arabian University EFL Students*. Doctoral dissertation, The University of Exeter.

Anderson, G. and Arsenault, N., (2005). *Fundamentals of educational research*. Routledge.

Astarilla, L., (2018). University Students' Perception towards the Use of Duolingo Application in Learning English. *Prosiding CELSciTech*, *3*, pp1-9.

Bamford, J. and Day, R.R., (2004). Extensive reading: What is it? Why bother? *Language Teacher-Kyoto-Jalt-*, *21*, pp6-8.

Bekebrede, G., Warmelink, H. & Mayer, I. (2011). Reviewing The Need For Gaming In Education To Accommodate The Net Generation. *Computers & Education,*57**,** pp1521-1529.

Bentham, S., (2002). *Psychology and education*. Routledge.

Benson, P., (2011). *Teaching and researching: Autonomy in language learning*. Routledge.

Blake, R. (2013). *Brave new digital classroom: Technology and foreign language learning.*, Georgetown University Press.

Blake, R. (2016). Technology and The Four Skills. *Language Learning & Technology,*20**,** pp129-142.

Brewer, R., Anthony, L., Brown, Q., Irwin, G., Nias, J. and Tate, B., (2013). Using gamification to motivate children to complete empirical studies in lab environments. *Proceedings of the 12th international conference on interaction design and children*.pp.388-391.

Brigham, T. J. (2015). An introduction to gamification: adding game elements for engagement. *Medical reference services quarterly,*34**, pp471-480.

Brown, H. D. (2001). *Teaching by principles: an interactive approach to language pedagogy,* White Plains, NY, Longman.

Brown, H. D. & Lee, H. (1994). *Teaching by principles: An interactive approach to language pedagogy*, Prentice Hall Regents Englewood Cliffs, NJ.

Castañeda, D. A. & Cho, M.-H. (2016). Use of A Game-Like Application on A Mobile Device to Improve Accuracy in Conjugating Spanish Verbs. *Computer Assisted Language Learning,*29**, pp1195-1204.

Da Rocha Seixas, L., Gomes, A. S. & De Melo Filho, I. J. (2016). Effectiveness of Gamification in the Engagement of Students. *Computers in Human Behavior,*58**, pp48-63.

Day, R. (2002). Top Ten Principles for Teaching Extensive Reading. *Reading in a foreign language,*14**, pp136.

Bamford, J. and Day, R.R, (2004). *Extensive Reading Activities for Teaching Language*. Cambridge University Press.

Day, R. R. & Bamford, J. (1998). *Extensive reading in the second language classroom,* Cambridge, Cambridge University Press.

Deci, E.L. and Ryan, R.M., (2011). Self-determination Theory. *Handbook of theories of social psychology*, *1*(2011), pp.416-433.

Ryan, R.M. and Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, *55*(1), p.68.

Denny, P. (2013), April. The effect of virtual achievements on student engagement. *Proceedings of the SIGCHI conference on human factors in computing systems*, pp. 763-772.

Deterding, S., Dixon, D., Khaled, R. and Nacke, L., (2011). From Game Design Elements to Gamefulness: Defining "Gamification". *Proceedings of Mindtrek,* pp9-15.

Domínguez, A., Saenz-De-Navarrete, J., De-Marcos, L., Fernández-Sanz, L., Pagés, C. & Martínez-Herráiz, J.-J. (2013). Gamifying learning experiences: Practical implications and outcomes. *Computers & Education,*63**,** pp380-392.

Dornyei, Z., (2001). *Teaching and Researching Motivation*. Applied Linguistics in Action.

Douglas, B.H., (2007). *Teaching by Principles*. An Interactive Approach to Language.

Ericsson, K. A., Krampe, R. T. & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological review,*100**,** pp.363.

Field, M. L. (2006). Finding a path to fluent academic and workplace reading. *Current trends in the development and teaching of the four language skills,*29**,** pp.329-354.

Gass, S. M. & Mackey, A. (2007). Input, interaction, and output in second language acquisition. *Theories in second language acquisition: An introduction,*175199.

Gibson, D., Ostashewski, N., Flintoff, K., Grant, S. and Knight, E., (2015). Digital badges in education. *Education and Information Technologies*, *20*(2), pp.403-410.

Godwin-Jones, R., (2011). Mobile apps for language learning. *Language Learning & Technology*, *15*(2), pp.2-11.

Godwin-Jones, R. (2014). Emerging Technologies Games in Language Learning: Opportunities and Challenges. *Language Learning & Technology,*18**,** pp.9-19.

Golonka, E. M., Bowles, A. R., Frank, V. M., Richardson, D. L. & Freynik, S. (2014). Technologies for foreign language learning: A Review of Technology Types and Their Effectiveness. *Computer Assisted Language Learning,*27**,** pp70-105.

Goodman, K. S. (1967). Reading: A psycholinguistic guessing game. *Literacy Research and Instruction,*6**,** pp.126-135.

Grabe, W. (1991). Current Developments in Second Language Reading Research. *TESOL Quarterly,*25**,** pp.375-406.

Grabe, W. (2009). *Reading in a second language: moving from theory to practice,* Cambridge; New York; Cambridge University Press.

Grabe, W. & Stoller, F. L. (2013). *Teaching and researching reading,* Abingdon, Routledge.

Hafiz, F. M. & Tudor, I. (1989). Extensive reading and the development of language skills. *ELT journal,*43**,** pp.4-13.

Hamari, J., Koivisto, J. and Sarsa, H., (2014). Does Gamification Work? A Literature Review of Empirical Studies on Gamification. *HICSS*,14, (2014), pp. 3025-3034.

Lee, J.J. and Hammer, J., (2011). Gamification in Education: What, How, Why Bother? *Academic Exchange Quarterly*, *15*(2), p.146.

Harmer, J. (2007). *The practice of English language teaching*. Harlow: Pearson Longman.

Hazaea, A. N. & Alzubi, A. A. (2016). The Effectiveness of Using Mobile on EFL Learners' Reading Practices in Najran University. *English language teaching,*9**,** pp.8-21.

Holec, H.(1979). *Autonomy and foreign language learning*. Oxford: Pergamon Press.

Hudson, T. (2007). *Teaching second language reading,* Oxford, Oxford University Press.

Ibáñez, M.B., Di-Serio, A. and Delgado-Kloos, C. (2014). Gamification for engaging computer science students in learning activities: A case study. *IEEE Transactions on learning technologies*, 7(3), pp.291-301.

Juan, U.E. (2008). Research oriented perspectives on teaching reading. In: Uso Juan, E, *Pedagogical reflections on learning languages in instructed settings*. Newcastle upon Tyne: Cambridge Scholars Publishing. pp.238-254

The International English Language Testing System (IELTS). (2019). *Test taker performance 2017* [Online]. [Accessed on 22 August 2019]. Available from: https://www.ielts.org/teaching-and-research/test-taker-performance

Kapp, K. M. (2012). The Gamification of Learning and Instruction: Game-Based Methods and Strategies for Training and Education. San Francisco, Calif: Jossey-Bass.

Kapp, K. M., Blair, L., Mesch, R., American Society For, T. & Development (2014). *The gamification of learning and instruction fieldbook: ideas into practice,* San Francisco, CA, Wiley.

Krashen, S. D. (1989). *Principles and practice in second language acquisition,* Oxford, Pergamon.

Krashen, S. D. (2004). *The power of reading: Insights from the research: Insights from the research*, ABC-CLIO.

Krashen, S. D. & Terrell, T. D. (1983). *The natural approach: language acquisition in the classroom,* Oxford, Pergamon.

Lee, J. J. & Hammer, J. (2011). Gamification in education: What, how, why bother? *Academic exchange quarterly,*15**,** p.146.

Little, D., (1991). Learner autonomy and second/foreign language learning. *Guide to Good Practice.*

Martens, M., (2014). Reading and" gamification". *Children & Libraries: The Journal of the Association for Library Service to Children*, *12*(4), p.19.

Martí-Parreño, J., Seguí-Mas, D. & Seguí-Mas, E. (2016). Teachers' attitude towards and actual use of gamification. *Procedia-Social and Behavioral Sciences,*228**,** pp.682-688.

McNamara, C. (1999). *General Guidelines for Conducting Interviews*, Authenticity Consulting, LLC. [online]. [Accessed on 25 August 2019]. Available from http://www.managementhelp.org/evaluatn/intrview.htm

Meyer, W.R., (2010). Independent learning: a literature review and a new project. *British Educational Research Association Annual Conference*, pp. 1-7.

Mork, C.(2018). Individualized Reading Development Outside of Class: A Review of readtheory.org. *Comparative Culture* (22.2) pp.32-45

Meniado, J.C., (2016). Metacognitive Reading Strategies, Motivation, and Reading Comprehension Performance of Saudi EFL Students. *English Language Teaching*, *9*(3), pp.117-129.

Nah, F.F.H., Zeng, Q., Telaprolu, V.R., Ayyappa, A.P. and Eschenbrenner, B. (2014). Gamification of education: a review of literature. *International conference on HCI in business*, pp. 401-409

Nakata, Y. (2006). *Motivation And Experience In Foreign Language Learning*. Peter Lang.

Nezami, S. R. A. (2012). A Critical Study of Comprehension Strategies and General Problems in Reading Skill Faced by Arab EFL Learners with Special Reference to Najran University in Saudi Arabia. *International Journal of Social Sciences & Education,*2.

Nuttall, C. (1982). *Teaching reading skills in a foreign language,* London, Heinemann Educational.

Piedra Carrión, V.R. (2018). *Online readtheory program impact on the development of EFL students' reading skills*. Master's Thesis, Politécnica Salesiana University.

Prensky, M. (2001). Digital natives, Digital immigrants part 1. *On the horizon,*9**,** pp.1-6.

O'Leary, Z. (2017). *The essential guide to doing your research project*. Sage.

Qrqez, M. & Ab Rashid, R. (2017). Reading comprehension difficulties among EFL learners: The case of first- and second-year students at Yarmouk University in Jordan. *Arab World English Journal (AWEJ) Volume,*8.

Renandya, W. A. & Jacobs, G. M. (2002). Extensive reading: Why aren't we all doing it. *Methodology in language teaching: An anthology of current practice***,** pp295-302.

Romeo, G., Hock, T. & Plante-Kropp, A. (2016). ReadTheory. org Data Collection Study 2.0.

Rosell-Aguilar, F. (2018). Autonomous language learning through a mobile application: a user evaluation of the busuu app. *Computer Assisted Language Learning,*31**,** pp.854-881.

Santos, C., Almeida, S., Pedro, L., Aresta, M. and Koch-Grunberg, T. (2013), July. Students' perspectives on badges in educational social media platforms: the case of SAPO campus tutorial badges. *2013 IEEE 13th International Conference on Advanced Learning Technologies*, pp. 351-353

Saville-Troike, M. and Barto, K. (2016). *Introducing second language acquisition*. Cambridge University Press.

Schneider, W. & Shiffrin, R. M. (1977). Controlled and automatic human information processing: I. Detection, search, and attention. *Psychological review,*84**,**1.

Smith, F. (2004). *Understanding reading: A psycholinguistic analysis of reading and learning to read*, Routledge.

Sykes, J.E., Reinhardt, J., Liskin-Gasparro, J.E. and Lacorte, M. (2012). *Language at play: Digital games in second and foreign language teaching and learning.* Pearson Higher Ed.

Taj, I. H., Ali, F., Sipra, M. A. & Ahmad, W. (2017). Effect of Technology Enhanced Language Learning on EFL Reading Comprehension at Tertiary Level. *Arab World English Journal,*8.

Tempest, C. (2018). Implementation of ReadTheory in a University EFL Context. *CUE Journal.*11(1), pp. 81-91.

Ushioda, E. (2014). Motivation, autonomy and metacognition. Motivation and foreign language learning: From theory to practice, In Lasagabaster, D., Doiz, A. and Sierra, J.M. eds., 2014. *Motivation and foreign language learning: From theory to practice* (Vol. 40). John Benjamins Publishing Company. pp.31-49.

Ur, P. (2012). *A course in English language teaching*, Cambridge University Press.

Vanpatten, B. & Williams, J. (2007). *Theories in second language acquisition: an introduction,* Mahwah, NJ, Lawrence Erlbaum Associates

Wallace, C (2001). Reading. In: Carter, R, *The Cambridge guide to teaching English to speakers of other languages.* Cambridge: Cambridge University Press. pp.21-27

Walker, A. & White, G. (2013). *Technology enhanced language learning: connecting theory and practice,* Oxford, Oxford University Press.

Werbach, K. & Hunter, D. (2012). *For the win: how game thinking can revolutionize your business,* Philadelphia, Wharton Digital Press.

Whitton, N. & Moseley, A. (2012). *Using games to enhance learning and teaching: a beginner's guide,* London, Routledge.

Wigfield, A. and Guthrie, J.T. (2000). Engagement and motivation in reading. *Handbook of reading research*, *3*, pp.403-422.

Wigfield, A., Guthrie, J.T., Tonks, S. and Perencevich, K.C. (2004). Children's motivation for reading: Domain specificity and instructional influences. *The Journal of Educational Research*, *97*(6), pp.299-310.

Yildirim, I. (2017). The effects of gamification-based teaching practices on student achievement and students' attitudes toward lessons. *The Internet and Higher Education,*33**,** pp86-92.

Zichermann, G. and Cunningham, C. (2011). *Gamification by design: Implementing game mechanics in web and mobile apps*. " O'Reilly Media, Inc."

Zimmerman, B.J. (1989). Becoming a self-regulated learner: An overview. *Theory into practice*, *41*(2), pp.64-70.

# 7. Appendixes

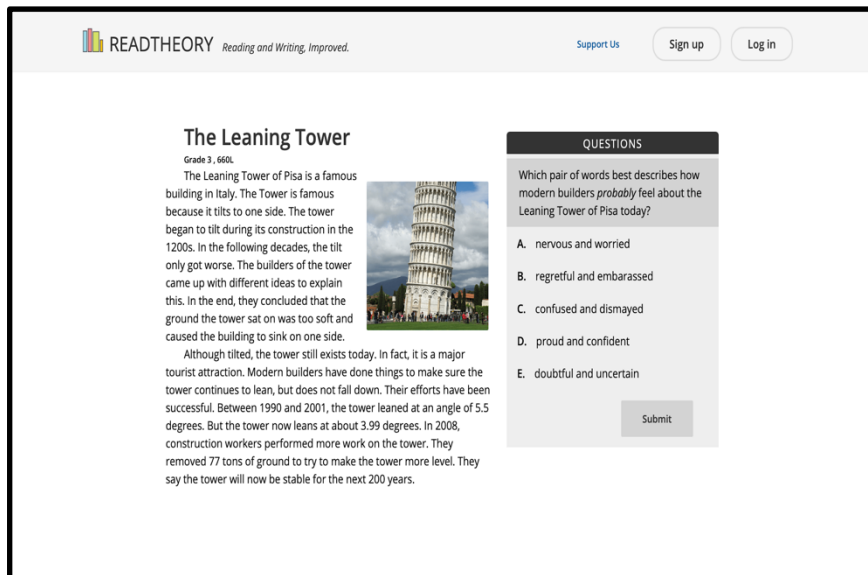## 7.1 Appendix A: Description of Readtheory.org



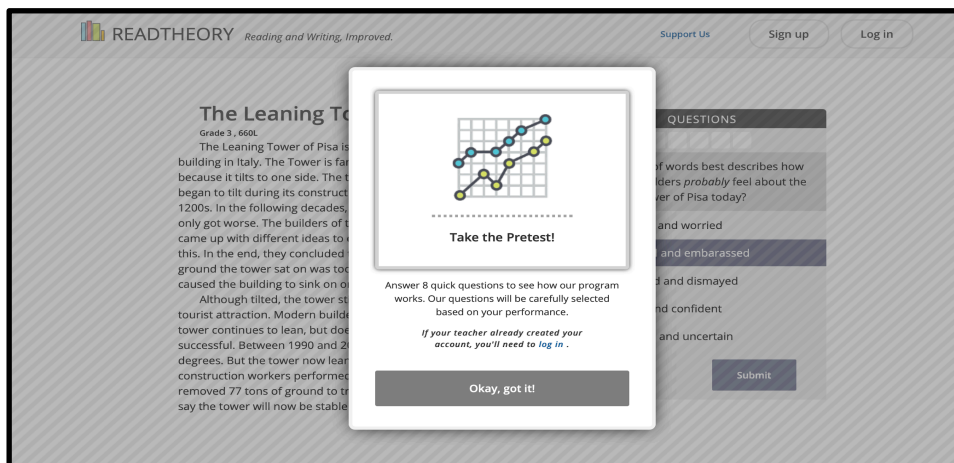Figure 6: Students sign in using a student account



Figure 7: A Pretest consisting of 8 questions is taken to assess students prior reading knowledge

Figure 8 : The Feedback is provided for each question of the reading task



Figure 9: Quiz history shows the reading activities and the dates they were completed along with the

score for each reading task.
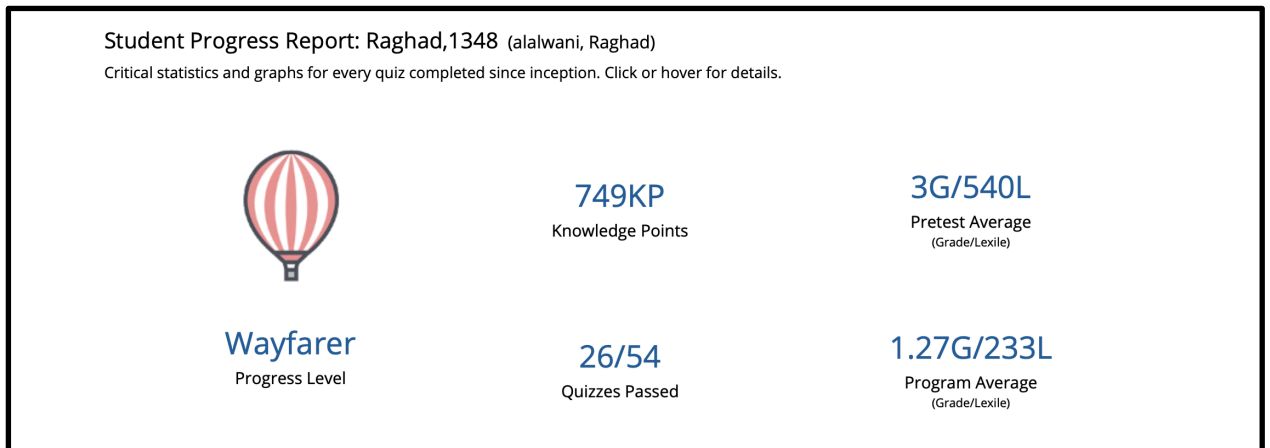
Figure 10: Student's progress is assessed according to KP and the number of quizzes passed. There is

a different badge for every level.
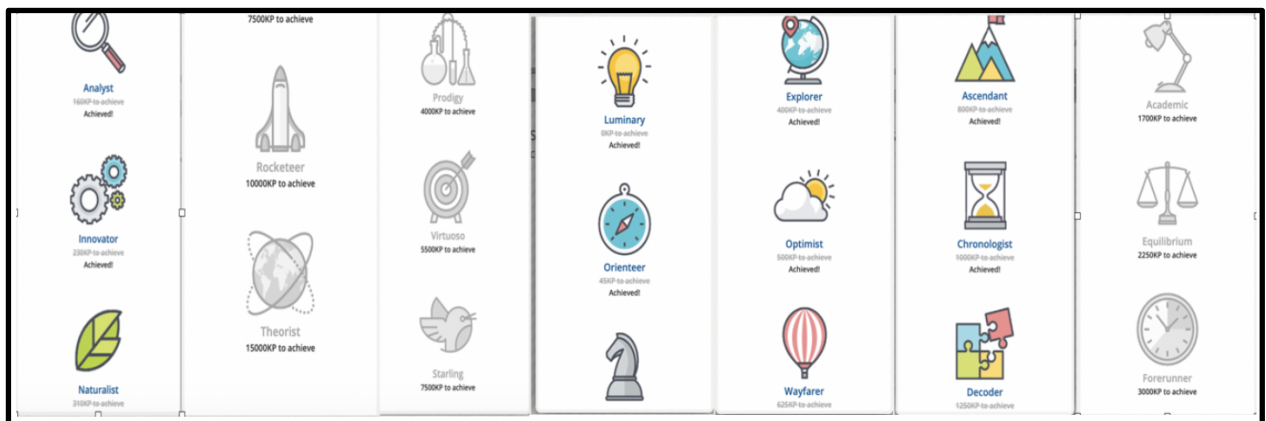


Figure 11: Readtheory.org Badges

**7.2 Appendix B: Readtheory.org Questionnaire**


## Enhancing Reading Skill via ReadTheory.org: Students' Attitudes, Motivation, Autonomy and Perceptions.

Thank you for your interest in participating in this research. This questionnaire aims at identifying your views, motivation, and autonomy when using Readtheory.org website to improve your reading skill. There are altogether 4 sections.

It will take about 15 minutes to complete the questionnaire. Your answers will be completely anonymous. You may withdraw from the survey at any time by exiting this page.

Please answer the questions honestly and carefully by ticking the appropriate responses and writing in the space provided.


**Section A: Personal Details**

**Sex:   Male \ Female**

**Age** _____

**Nationality** _____

**Email** _____

**Mobile Number** _____

## Section B: Motivation

### 1. The use of Digital Badges



| Statement | 1. Strongly disagree | 2. Disagree | 3. Neutral | 4. Agree | 5. Strongly agree |
|---|---|---|---|---|---|
| 1. I am interested and motivated by the reading badges. | | | | | |
| 2. I put a lot of effort into earning digital badges. | | | | | |
| 3. It was important to me to do well at earning digital badges. | | | | | |
| 4. I tried very hard to earn digital badges. | | | | | |
| 5. Earning this digital badge was fun. | | | | | |
| 6. I would describe earning this digital badge as very interesting | | | | | |

| | | | | |
|---|---|---|---|---|
| 7. Attempting to earn badges held my attention | | | | |
| 8. I told others about my badges earned in this course. | | | | |
| 9. The badges made me want to keep working. | | | | |
| 10. The badges motivated me to work harder. | | | | |

## 2. The Knowledge Points (KP)
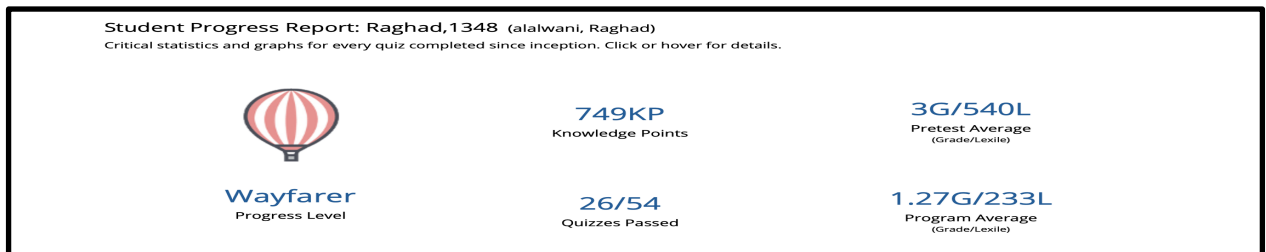


| Statement | 6. Strongly disagree | 7. Disagree | 8. Neutral | 9. Agree | 10. Strongly agree |
|---|---|---|---|---|---|
| 1. I am interested and motivated by the KP. | | | | | |
| 2. I put a lot of effort into collecting KPs. | | | | | |
| 3. It was important to me to collect KPs | | | | | |

| Statement | 1. Strongly disagree | 2. Disagree | 3. Neutral | 4. Agree | 5. Strongly agree |
|---|---|---|---|---|---|
| 4. I tried very hard to KPs. | | | | | |
| 5. Collecting KPs was fun. | | | | | |
| 6. I would describe collecting KPs as very interesting | | | | | |
| 7. Attempting to collect KPs held my attention | | | | | |
| 8. I told others about my KPs in this website. | | | | | |
| 9. The KPs made me want to keep working. | | | | | |
| 10. The KPs motivated me to work harder. | | | | | |

## Section C: Independent Learning

| Statement | 1. Strongly disagree | 2. Disagree | 3. Neutral | 4. Agree | 5. Strongly agree |
|---|---|---|---|---|---|
| 1. I enjoy learning to read using this website. | | | | | |
| 2. The use of ReadTheory has helped me to improve my reading skill independently. | | | | | |
| 3. I will use ReadTheory to practice my reading skill after this course finishes. | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 4. I would rather spend more time practicing my reading on the ReadTheory than traditional teaching of reading. | | | 74 | | |
| 5. I practice reading using the ReadTheory more than what is required. | | | | | |

**Section D: General Questions**

**1. Complete the following statement.**

    **A. <u>ReadTheory website is motivating me to learn because:</u>**

…………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………

**2. Overall, do you think this website was helpful to improve your reading skill?**
    A. Yes
    B. Not Sure
    C. No

_____

_____

_____

**3.  Does the Readtheory website motivate you to read or develop your language skills?**
    A. Yes
    B. Not Sure
    C. No

_____

_____

_____

**4.  Do you think the Readtheory supported you to develop your reading skills? How?**
    A. Yes
    B. Not Sure
    C. No

_____

_____

**5. Did you face any problems when using the website?**
A. Yes
B. Not Sure
C. No

_____

_____

_____

**6. Would you recommend this website for someone else? Why or why not?**
**A. Yes**
**B. Not Sure**
**C. No**

_____

_____

_____

**5. What are suggestions for the improvement of the website?**

_____

_____

_____

_____

_____

_____

_____

_____

_____

**7.3 Appendix C: Replies and Transcription of Interview Questions**

**A. Interview Questions**

1. Do you like using the RT? Why?

2. How does readtheory.org improve your English?

3. What are the benefits of using the RT Website?

4. What are the disadvantages of using the RT Website?

5. Would you describe your experience with RT knowledge points as positive or negative? why?

6. Would you describe your experience with RT badges as positive or negative? why?

7. How much time do you spend to read and complete reading quizzes on Readtheory.org?

8. Do you intend to use the website after the course finishes?

**B. Replies and Transcription of Interview**

Student A:

1. "Yes, I like it. It is [a] good website. It help[s] me to read every day and [to] practice reading English passages"

2. "[I] Practice every day [for] 10 minutes in class. When [I] read I see many words and see them again. It give[s] me new words. "

3. "Writing and spelling [are] good and [I] practice reading a lot."

4. "sometimes it [is] boring, questions [are] long."

5. I think Knowledge points [are] fun. It motivate[s] [me] to read more.

6. Yes, it is positive, and I think it [is] interesting too because it encourage[s ] me to practice more.

7. I read [for] an hour every day.

8. Yes

Student B:

1. Yes, [I] like [it] very much. It [is] interesting because I [can] compete with other student[s]."

2. "I read every day in class and practice in [at] home [and] get points for reading."

3. "I [can] read [comprehend reading] more quickly [faster]."

4. "I think it [is] [a]beautiful website but maybe it [does] not have games [online competitions] like Kahoot."

5. Yes, very positive. it enable[s] me to compete with my friends in class [classmates].

6. Yes, [it is] positive because [it] develops my reading level.

7. I don't know. I use it every day.

8. Maybe

Student C

1. "Yes, because it is fun and interesting. I feel happy because I practice with [my]friends and take [earn] badges and increase [get] knowledge points"

2. "When I read, I increase my vocabulary [and] I use this vocabulary in [my] writing."

3. "The levels because I [can] see my level and [I know what my current level is] improve in reading. Also, I [can] read from anywhere. I read from my iPad."

4. "No, I do not think"

5. I don't know but I feel collecting points to read is [a] nice and fun experience. I think (was thinking] about points all the time.

6. Maybe positive. I compete with [my] friends to take [earn] [them]. It [is] not easy to take [earn] badges but [it] is fun.

7. Maybe [for] one hour in a day.

8. Yes

Student D

1. "Yes, because it is easy [and] simple. It help[s] me to read about many things. I read a lot and [about] different topics. "

2. "I [can] now read quickly and know many words. In exam, I have [get] good mark[s] because [I] practice"

3. I read at home anytime from my account. Reading is like [matches] my level in reading. I see my level. It is fun.

4. No, it is good. I like it.

5. Yes, it is positive because I have [had] to read to get a lot of points.

6. It is positive because when you read it help[s] [you] to read good [well]. I think [collecting] badges is difficult but [it is] very nice.

7. I use the website every day when I have time to practice for my final exam.

8. Yes

## Summary of The Questions and Students' Answers (paraphrased)

| Student No. | Questions |
|---|---|
| **1. Reason(s) for liking to use Readtheory.org** | |
| A | It provides reading practice. |
| B | It is Interesting and encourages students to compete with each other to improve reading. |
| C | It is fun and interesting. Provides students with badges and knowledge points. |
| D | It is simple and easy to use. |
| **2. How does readtheory.org improve your English?** | |
| A | It expands and familiarize students with new vocabulary. |
| B | It motivates students to read. |
| C | It enhances writing skill and increases vocabulary knowledge. |
| D | It enhances comprehension and motivates learning. |
| **3. Benefits of using the ReadTheory Website.** | |

| | |
|---|---|
| A | It enhances writing and correct spelling. |
| B | It fosters reading comprehension. |
| C | It is ccessible from anywhere (from home, university ...etc) – it has different reading levels. |
| D | It is fun and it matches learners' reading level. |

**4. Disadvantages of using the ReadTheory Website.**

| | |
|---|---|
| A | Questions are boring and long. |
| B | It does not have online competitions |
| C | - |
| D | - |

**5. Would you describe your experience with ReadTheory knowledge points as positive or negative? why?**

| | |
|---|---|
| A | Knowledge points are fun and motivating. |
| B | They are positive. They enable students to compete. |
| C | They held attention because they are fun. |
| D | Collecting points is positive and motivating to read. |

**6. Would you describe your experience with ReadTheory badges as positive or negative? why?**

| | |
|---|---|
| A | Collecting badges is positive experience and interesting because it encourages students to practice reading. |
| B | Positive experience because it develops the reading level. |
| C | It difficult to earn badges but it is fun and increases competition among learners. |

| | |
|---|---|
| D | Although collecting points is difficult, it is positive because it enhances my reading comprehension. |
| **7. How much time do you spend to read and complete reading quizzes?** | |
| A | An hour a day. |
| B | Everyday. |
| C | An hour a day. |
| D | Every day to practice for my final exam. |
| **8. Do you intend to use the website after the course finishes?** | |
| A | Yes |
| B | Yes |
| C | Not Sure |
| D | Yes |