Jordanian EFL Sixth-Grade Students' Attitudes towards Using Gamification in Reading Comprehension

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Abstract:

This study investigated the Jordanian EFL sixth-grade students 'attitudes towards using gamification in reading comprehension lessons. The participants of the study were 35 students from a public school in Jordan. They studied reading comprehension activities through gamification. A questionnaire with 31-items was designed to explore students' attitudes towards using gamification in reading comprehension lessons. The results indicated that the sixth-grade students had positive attitudes towards the use of gamification in reading comprehensionlessons.

Key Words: EFL students' attitudes, gamification, reading comprehension, Jordan.

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اتجاهات طلاب الصف السادس الأردنيين متعلمي اللغة الانجليزية لغة أجنبية نحو استخدام الألعاب التحفيزية في فهم المقروء

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ملخص:

بحيث هذه الدراسة في اتجاهات طلاب الصف السادس الأردنيين متعلمي اللغة الانجليزية لغة أجنبية نحو استخدام الألعاب التحفيزية في دروس فهم المقروء. بلغ عدد المشاركين في الدراسة 35 طالبًا من مدرسة حكومية في الأردن، درسوا أنشطة فهم المقروء عبر الألعاب التحفيزية. تم تصميم استبانة تحتوي على 31 فقرة لاستكشاف اتجاهات الطلاب نحو استخدام الألعاب التحفيزية في دروس فهم المقروء. اظهرت نتائج الدراسة أن طلاب الصف السادس لديهم اتجاهات إيجابية نحو استخدام الألعاب التحفيزية فيدروس فهم المقروء.

الكلمات المفتاحية: اتجاهات طلاب اللغة الإنجليزية لغة أجنبية، الألعاب التحفيزية، فهم المقروء، الأردن.

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1. Introduction

Teaching and learning witness today different changes that may affect students' performance, especially in English as a foreign language (EFL). It is challenging to teach the English language, namely reading comprehension, as one viewed in the past. Thus, it is necessary to update teaching methods and strategies used by EFL teachers. Exploring students' attitudes is the first step to find out students' needs and later introduce new strategies that cope with integrating technology in the educational process.

Exploring students'attitudes is substantial since these attitudes play a central role in introducing suitable techniques in the language classroom. Hence, investigating students' attitudes may encourage EFL teachers to change their methods of teaching and their teaching techniques to suit their students (Popham, 2005).

Attitudes towards reading are a laborious process since they are a necessary component of the learning process from the social psychological perspective point of view. Attitudes vary in terms of being positive or negative ones (Mukherjee, 1979). Positive attitudes usually strongly influence students' academic success to achieve and accomplish different tasks, whereas negative attitudes may stop and limit students' progress (Tunde-Awe, 2014).

Taking into consideration the factors that affect reading comprehension from the teachers' and educators' point of view through their preparation and implementation of the reading lessons may motivate and enhance students' attitudes towards reading comprehension (Fraihat, 2018). To achieve reading comprehension, teachers may use specific teaching techniques that may help their students to comprehend meaning in reading texts. One of these techniques that may help in developing reading comprehension skills is the use of gamification.

Gamification is a new trend that encourages interaction between students and educational materials in the learning process. Al-Mawali (2011) claims that taking the advantages of gamification is required since it can be used to encourage interacting with educational materials and with other students. It also improves communication skills in the surrounding environment.

Gamification is the use of play mechanics for non-game applications (Raymer, 2011). It is also a technique used to integrate game mechanics and techniques in situations that are not designed as a game (Osheim, 2013).

It seems that game mechanics are essential keys in gamification.Game

mechanics can be used to gamify non-game situations and activities. These mechanics are used to motivate students, support them to try and explore, and keep them learn in a social context (AL-Smadi, 2015). Besides, Fabricatore (2007) stated that game mechanics are the essential elements that can be found in a game to make players challenged, controlled, and finally rewarded.

There are different categories of game mechanics in gamification, including points, badges, levels, and leaderboards (Zichermann & Cunningham, 2011). Furthermore, challenges, chances, competition, cooperation, feedback, and rewards are another category of game mechanics (Werbach & Hunter, 2012).

In gamification, points and badges are the most modern game elements that can be used in education (Borges, Durelli, Reis, & Isotani, 2014; Kapp, 2012; Hamari, Koivisto & Sarsa, 2014). The use of points increases students' internal motivation. They provide feedback related to students' progress (Mekler, Brühlmann, Opwis, & Tuch, 2013), and also increases students' involvement in learning (Li, Dong, Untch, & Chasteen, 2013). Besides, using badges is also useful since they encourage students' activity and their classroom participation (Denny, 2013; Grant & Betts, 2013), boost students' motivation (Haaranen, Ihantola, Hakulinen, & Korhonen, 2014), and also their academic achievement (Antin & Churchill, 2011; Da Rocha Seixas, Gomes & De Melo Filho, 2016).

The use of gamification provides an opportunity for teachers to be engaged and motivate their students. This benefit allows teachers to guide students quickly, and to give them rewards and prizes, which encourages them to continue learning (Lee & Hammer, 2011). More specifically, gamification is a technique that allows teachers to motivate and engage their students in learning (Denny, 2013).

Different Jordanian researchers (e.g., Amoush, 2012; Alkhawwaldeh, 2011) stated that students have problems in answering reading comprehension questions. They also claim that these problems and obstacles are attributed to learning reading comprehension in conventional methods and using incorrect and inappropriate strategies in teaching reading comprehension. Also, many EFL Jordanian students have faced difficulty in lessons of reading comprehension. This result is due to the teaching strategy of reading comprehension, which is not practical in almost times (Al-Jamal, Hawamleh & Al-Jamal, 2013; Al-Sarairah & Abul-Haija, 2007).

The use of gamification in reading comprehension lessons is not familiar. Therefore, the researchers find it essential to explore students' attitudes towards using gamification in reading comprehension lessons.

1.1 Statement of the Problem

Jordanian EFL students are not motivated in reading comprehension lessons. During the researchers' work with school and university students, they have noticed that most students are demotivated to answer reading comprehension questions. Jarrah (2008) stated that using inadequate strategies is one of the reasons that make students inactive in reading comprehension lessons. Therefore, the use of gamification might be one of the new strategies that enhances students' attitudes and motivation towards learning reading comprehension.Researchers (e.g., Korkealehto&Siklander, 2018) suggests that using gamification has an impact on students'motivation. Based on the previous reasons, the researchers aimed to explore the sixth-grade students' attitudes for using gamification in their reading comprehensionlessons.

1.2 Purpose of the Study

This study seeks to examine the Jordanian EFL sixth-grade students'attitudes towards the use of gamification in their reading comprehension lessons.

1.3 Question of the Study

This study addresses the following question:

What are the Jordanian EFL sixth-grade students' attitudes towards using gamification in their reading comprehension lessons?

1.4 Significance of the Study

The researchers claim that this study is one of the first studies in Jordan, which investigates students' attitudes towards using gamification in lessons of reading comprehension. Hopefully, the results proposed may provide EFL teachers with a new strategy that can be used in teaching reading comprehension. Besides, this study may be useful in offering a new technique that may help the Ministry of Education (MoE) to generalize the benefits of using gamification in teaching English in general.

1.5 Limitations of the Study

This study is limited to the questionnaire that is built by the researchers. Thus, the results of this study are based on the validity and reliability of the questionnaire. Also, The duration of the study is only for two months**.**

2. Review of Related Literature

Different studies explored students' attitudes toward learning by gamification. In this regard, Abramovich, Schunn and Higashi (2013) explored fifty-one American Students'motivation towards learning through gamification. The survey was used as an instrument to measure students' motivation. Findings showed that using badges, as one of the gamification elements, affected students' motivation positively.

Barata, Gama, Jorge, and Gonçalves (2013) examined two hundred forty-two Portuguese university students'attitudes towards gamification. The researchers used a questionnaire to measure students' attitudes. The results showed that Students'attitudes were positive to learn through the gamification technique.

De-Marcos, Domínguez, Saenz-de-Navarrete, and Pagés (2014) explored students' attitudes towards the use of gamification. The participants were three hundred seventy-one Spanish university students' .The researchers used a survey to evaluate students' attitudes towards gamification. The findings pointed out that the participants showed positive attitudes towards this technique.

Wintermeyer and Knautzn (2015) explored ninety-six university students' attitudes in Germany. A survey was used to collect the data. The findings indicated that students had positive attitudes toward learning with gamification.

Hamzah, Ali, Saman, Yusoff, and Yacob (2015) explored students 'motivation for learning with gamification. The participants were twenty-four Malaysian university students. A questionnaire was used to collect data. The findings revealed that gamification had a positive effect on the students' motivation.

Hudiburg (2016) explored students' attitudes towards a gamified course in the USA. The participants were thirty-nine university students. The researcher used a survey to achieve the purpose of the study. The finding revealed that the students had negative attitudes towards using gamification in their learning.

Orsatti (2017) investigated the effect of a gamified instructional unit on thirty-six students' motivation. The instrument used was a questionnaire. The findings showed that the participants had positive attitudes and more engaged in their learning after they were studied by gamification.

Bicen and Kocakoyun (2018) examined students' perceptions of using gamification in their learning in Turkey. The participants of the study were

sixty-five male and female university students. The researchers designed a questionnaier with 55-items and classified them into three domains. Results indicated that the students were motivated to use gamificationin learning.

Tan (2018) explored students' motivation for the use of gamification in reading comprehension. The participants were twenty-two, Singaporean students. The researcher collected data by a questionnaire. The results showed that students had high motivation towards using gamification in lessons of reading comprehension.

Jun (2018) investigated the use of gamification on thirty-seven Korean students' motivation. A questionnaire was used to gather the data. The results showed that gamification significantly increased students' motivation to pursue their learning.

Aji and Napitupulu (2018) examined twenty-four Indonesian primary students' motivation for learning with gamification. A questionnaire was administered. The results pointed out that students were not motivated to learn by gamification.

2.1 Concluding Remarks

As noted above, many studies (e.g., Abramovichwt al., 2013;Barata et al., 2013;De-Marcos et al., 2014;Wintermeyer & Knautzn, 2015; Hamzah et al., 2015; Orsatti, 2017; Bicen & Kocakoyun, 2018; Tan, 2018; Jun, 2018) concluded that students had positive attitudes towards the use of gamification in learning. In contrast, studies (e.g., Hudiburg, 2016; Aji & Napitupulu, 2018) reported that students had negative attitudes towards learning with gamification.

Several studies (e.g., Abramovichwt al., 2013; Orsatti, 2017; Jun, 2018 Aji&Napitupulu, 2018) explored school students' attitudes towards the use of gamification in their learning. Studies (e.g., Barata et al., 2013; De-Marcos et al., 2014;Wintermeyer & Knautzn, 2015; Hamzah et al., 2015 Hudiburg, 2016; Orsatti, 2017; Bicen & Kocakoyun, 2018; Tan, 2018) investigated university students' attitudes towards learning through gamification. This study is similar to only one study (e.g., Tan, 2018) since it seeks to explore students' attitudes towards using gamification in reading comprehension lessons. In contrast, this study is characterised by its objective in analyzing students' attitudes towards the use of gamification in reading comprehension lessons since no other studies examined this issue in Jordan.

3. Methods and Procedures

3.1 Design of the Study

This study used the descriptive-analytical methodolgy to examine students' attitudes towards using gamification in reading comprehension lessons.

3.2 Participants of the Study

The participants of this study were 35 male EFL sixth-grade students from a public school in the Directorate of Education in Russifa, Jordan, during the first semester ofthe academic year 2019/2020. One section of the five sections was chosen by flipping a coin to take part in the present study. The chosen section was taught reading comprehension lessons by gamification. After the participants had studied reading comprehension lessons through the use of gamification, they responded to the questionnaire to explore their attitudes towards using gamification.

3.3 Instrument of the Study

The researchers designed a questionnaire with 31-items to measure students' attitudes towards using gamification in reading comprehension lessons. The questionnaire was designed after reviewing a group of previous studies and the theoretical framework related to gamification. The questionnaire was a five-point Likert scale (i.e., Strongly Agree (5), Agree (4), Undecided (3), Disagree (2), and Strongly Disagree (1).

3.4 The Validity of the Questionnaire

The questionnaire, to judge its validity, was given to a group of specialists and teachers in English language teaching in the Jordanian universities and the MoE. They were asked to determine if the items of the questionnaire were adequate, appropriate, and comprehensive for the Jordanian EFL sixth-grade students. The jury provided the researchers with their comments and suggestions. After the researchers made the required improvements, the questionnaire was considered appropriate for the study and suitable for investigating the students' attitudes towards the use of gamification.

3.5 Reliability of the Questionnaire

Cronbach's alpha, to establish the reliability of the questionnaire, was calculated to check the internal consistency index for the questionnaire items. The result revealed that the reliability value was (0.817). This result showed that the questionnaire is reliable and appropriate for this study.

3.6 Data Analysis

The means and standard deviations of the participants' responses to the questionnaire were used to explore their attitudes towards using gamification in reading comprehension lessons.

4. Results of the study

The study question was: *What are the Jordanian EFL sixth-grade students' attitudes towards using gamification in their reading comprehension lessons?* To answer this question, the researchers calculated the means and standard deviations of the participants' attitudes towards using gamification in their reading comprehension lessons. Table 1 presents the results.

'Table 1: Means, Standard Deviations and Ranks of Students' Attitudes towards Using Gamification in their Reading Comprehension Lessons

Rank	No.	Items	Mean	Std. Dev.	Degree
1	15	I feel confident in gamification lessons.	4.69	0.58	High
2	29	I think using gamification forces me to improve my performance in reading lessons.	4.63	0.91	High
3	2	I prefer using gamification in reading comprehension lessons.	4.57	0.50	High
4	1	I think using gamification increases my interest in reading comprehension lessons.	4.54	1.01	High
4	27	I think that using gamification encourages me to take notes in the classroom.	4.54	1.15	High
6	28	I see that gamification supports my learning in difficult topics.	4.51	1.01	High
7	17	I think gamification allows me to follow my achievement status in reading comprehension.	4.49	0.82	High
7	31	I think gamification is flexible to use in the reading lessons.	4.49	0.95	High
9	3	I think gamification provides me an opportunity to study reading lessons more.	4.46	0.85	High
9	10	I think using gamification provides an opportunity for every student to ask and answer about reading comprehension lessons.	4.46	0.89	High
11	19	I think the use of gamification is fun.	4.46	0.92	High
12	18	I think that gamification helps me to understand reading lessons better.	4.43	0.56	High
12	30	I like using gamification since it increases classroom competition.	4.43	1.12	High
14	11	I think that gamification enhances my skill in scanning texts for specific information.	4.40	0.85	High

Rank	No.	Items	Mean	Std. Dev.	Degree
14	26	I think using gamification helps me in distinguishing between fact and opinion in reading lessons.	4.40	1.06	High
16	24	I think using gamification encourages me to listen carefully to the classroom in reading lessons.	4.37	0.88	High
17	7	I can communicate more with my classmates in gamification.	4.34	1.08	High
18	12	I think that gamification enhances my skill in deducing the meaning of unfamiliar words.	4.31	1.02	High
19	21	I see that the use of gamification allows me to exchange information among friends.	4.29	1.13	High
20	25	I think that using gamification makes me determined for success in reading lessons.	4.11	0.93	High
21	5	I think that the use of gamification increases my motivation towards learning.	4.09	1.15	High
22	8	I think that gamification enhances my skill in skimming texts for the main ideas.	4.06	1.31	High
23	13	I think using gamification improves my skill in drawing conclusions in the reading lessons.	3.97	1.04	High
23	16	I think introducing points in gamification motivates me in reading comprehension.	3.97	1.27	High
25	20	I think that winning badges makes me feel important in gamification while the reading lesson.	3.94	1.16	High
26	22	I see that using gamification facilitates recalling information easily in the reading lesson.	3.89	1.21	High
27	6	I feel embarrassed in gamification.	1.94	1.16	Low
27	9	I feel bored with reading lessons when I learn through gamification.	1.94	1.24	Low
29	23	I think using gamification is not effective in reading comprehension lessons.	1.77	0.97	Low
30	14	I hate using gamification in reading comprehension lessons.	1.60	0.88	Low
31	4	I feel learning with gamification is uncomfortable.	1.51	0.74	Low
		Tital Score	**3.92**	**0.39**	**High**

Table 1 shows that the sixth-grade students who were taught by gamification strategy have high positive attitudes towards using gamification in their reading comprehension lessons. The total mean score of the questionnaire was (3.92), with a standard deviation of (0.39). Most of the items were high positive, as the means ranged between (4.69-1.51). Item(15)"*I feel confident in gamification lessons*" came in the first rank, with a mean score of (4.69) and a standard deviation of (0.58). Item(29)"*I*

think using gamification forces me to improve my performance in reading lessons" came in the second rank, with a mean score of (4.63) and a standard deviation of (0.91). Item (4) "*I feel learning with gamification is uncomfortable*" came in the last rank, with a mean score of (1.51) and a standard deviation of (0.74).

5. Discussion of the Results

The study examined the Jordanian EFL sixth-grade Students' attitudes towards using gamification in their learning of reading comprehension lessons. The results related to this question showed that the sixth-grade students have high positive attitudes towards using gamification in their reading comprehension lessons. These results indicate that the students preferred having gamification in reading comprehension lessons. Also, students' positive attitudes revealed that using gamification helped them to participate more in reading activities.

The researchers attribute this result that the sixth-grade students preferred the activities of reading based on gamification. All the students had exciting opportunities to learn with a friendly atmosphere that allowed them to study reading lessons extensively without worry. Besides, they were able to respond to the posts and activities as well as answer them quickly in an exciting way.The finding presented in this study is consistent with Tan (2018), who reported that students had positive attitudes towards using gamification in their reading comprehension lessons.

Moreover, the sixth-grade students' attitudes were positive since they reported an improvement in their ability to answer reading comprehension questions as a result of using gamification. In this case, students were provided the time to ask and answer about reading texts, and also communicate with their classmates in an attractive way. In the same line, Kapp (2012) asserted that using gamification increases students' ability to deal with the variety of solving problems which paved the way to communicate simply with others.Further, the students were able to see their achievement status after they could answer an activity, which made them learn in a competitive classroom. This way makes them more determined for success in reading lessons. This result is inconsistent with Hudiburg (2016), who claimed that students had negative motivation towards gamification.

Furthermore, the researchers may attribute the students' positive attitudes towards incorporating gamification in reading comprehension lessons for the following reasons. First, teaching reading comprehension through gamification improved students' performance since the participants

in this study did not learn before using this new strategy. As a result, students' intrinsic motivation and self-reliancein reading activities were improvedutterly. This result is in line with Hamzah et al. (2015), who confirmed that gamification had a positive effect on students' motivation. Second, the students' errors were reduced as they should complete the challenges and activities to obtain specific points while they were studying the lessons of reading comprehension. This result indicates that gamification is effective in language learning.

Additionally, after applying the gamification strategy in reading comprehension lessons, the researchers noticed that the students' motivation increased. During the implementation of gamification, the participants felt that they were relaxed and comfortable in the class. They had the freedom to ask and answer questions related to the reading texts without any embarrassment that may be found in some traditional classes. Also, the participants felt that learning with gamification increased their desire to learn as it introduced points and rewards, which made the students inspired positively. As well, the participants felt that the teacher's role changed in reading lessons. They felt that gamification allowed the teacher to guide and reward them during their learning. This result supports Lee and Hammer (2011), who asserted that using gamification provided the teacher the time to guide his students and give them rewards, and in turn, encourage their learning.

Moreover, the participants reported that they were looking forward to the time of reading lessons since they enjoyed experiencing this new type of learning. They enjoyed reading lessons through gamification. This aspect stimulated them to listen carefully to the lesson and take notes from the teacher.

After applying the instructional program of gamification, the participants felt that the gamified activities increased the positive communication among the students and the teacher, as well as the learning material in a safe, friendly atmosphere with fewer barriers. Also, the participants got immediate feedback about what they have answered or completed during their lessons. This environment could easily be used to make students have positive attitudes towards gamification in the learning process. These results are in line with Deterding et al. (2011), who confirmed that gamification is appropriate to be used in affecting students' motivation and their behaviours towards learning positively.

Another reason for the participants' positive attitudes is that the

participants felt that they were able to quickly answer reading comprehension questions, all the participants were given two chances to answer the assigned questions in a comfortable atmosphere. This let them benefit from their errors while they were responding to the activities for the first time. As a result, this increased their overall performance in reading comprehension skills.

The participants' responses might be a clear indicator of the positive effect of using gamification on the Jordanian EFL sixth-grade students' reading comprehension. The researchers' opinion about this result is that the students who were taught through gamification were more encouraged and enthusiastic in reading activities of gamification. Students got more opportunities to learn, participate and be rewarded in the same class. Moreover, the researchers believe that it was a justification of the students' positive attitudes towards gamification. Gamification is useful because it has a stimulating environment that attracts the students. This result is in parallel with Kapp (2012), who claimed that the use of gamification strategy is a helpful tool in motivating and encouraging learning. It seems that gamification changed students' attitudes towards learning positively. Hamari et al. (2014) confirmed that having gamification in the learning process is able to change students'behaviour positively. In this study, the students stated that using gamification, as a strategy of learning, make them more ambitious to continue completing the learning, which in turn improved the competition in the classroom and changed students'behaviour.

To conclude, the findings of the current study are consistent with the findings of the previous studies (e.g., Abramovich et al., 2013; Barata et al., 2013; De-Marcos et al., 2014; Hamzah et al., 2015; Wintermeyer&Knautzn, 2015; Orsatti, 2017; Bicen&Kocakoyun, 2018; Tan, 2018; Jun, 2018) which showed in their results that students had positive attitudes towards using gamification in their learning. In contrast, the findings of this study are inconsistent with the findings of the studies (e.g., Hudiburg, 2016; Aji&Napitupulu, 2018) which showed in their results that the students had negative attitudes towards the use of gamification in their learning.

6. Recommendations

Several recommendationsare proposed based on the results of this study as follows:

1. Exploring students' attitudes towards using gamification in other reading comprehension skills.
2. Exploring students' attitudes towards gamification in other language

skills (e.g., writing).

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