# **Research Paper**

# The Effectiveness of Using Formative Assessment by Kahoot Application on Iranian Intermediate EFL Learners' Vocabulary Knowledge and

# **Burnout Level**

# Azar Hamedi, Laleh Fakhraee Faruji\*, Leila Amiri Kordestani

English Language Department, Shahr-e-Qods Branch, Islamic Azad University, Tehran,

Iran

# Citation

Hamedi, A., Fakhraee Faruji, L., & Amiri Kordestani, L. (2022). The Effectiveness of Using Formative Assessment by Kahoot Application on Iranian Intermediate EFL Learners' Vocabulary Knowledge and Burnout Level. *Journal of new advances in English Language Teaching and Applied Linguistics*, *4*(1), 768-786.

•••• 10.22034/jeltal.2022.4.1.5

Received	Abstract This study planned to investigate the impact of utilizing formative
2022-01-11	assessment by Kahoot application on Iranian intermediate EFL learners' vocabulary knowledge as well as their burnout level. To
Revised	conduct the study, 60 homogeneous participants, who were chosen
2022-02-07	after administering the Oxford Placement Test (OPT), were randomly
	assigned into two equal groups as control and experimental. Then, the
Accepted	participants took part in the researcher-made vocabulary test as the
2022-02-13	pretest. In the experimental group, the participants used Kahoot
	application to address a few questions related to the vocabulary of
	each lesson while the participants in the control group performed the
Keywords:	activities in their student and workbook. After ten sessions, they took
vocabulary	part in the posttest. The analyses of the obtained data revealed that
knowledge,	using Kahoot, as an online tool for formative assessment, had a
Kahoot,	statistically significant effect on vocabulary knowledge of Iranian
formative	EFL learners. On the other side, using this application had a
	statistically significant effect on reducing the burnout level of
assessment,	language learners. The findings could be beneficial for EFL/ESL
burnout	Learners as well as teachers.

\*Corresponding Author: Laleh Fakhraee Faruji

Address: English Language Department, Shahr-e-Qods Branch, Islamic Azad University, Tehran, Iran

Tel: +98-912-418-5890 E-mail: fakhraeelaleh@yahoo.com

# Introduction

When learning a second language, an individual's vocabulary knowledge is one of the most important components in language development. In fact, as Wilkins (1972) stated, "without grammar very little can be conveyed, without vocabulary nothing can be conveyed" (p. 111). Not only the level of vocabulary knowledge is important to success in academic achievement

(Laufer et al., 2004; Milton et al., 2010; Stæhr, 2008), but also it is significant to participate in effective communication. This, in fact, shows the importance of vocabulary knowledge among all other language components.

Although reviewing the literature showed a lot of research in vocabulary instruction and assessment in Iranian EFL contexts (e.g., Ashraf et al., 2014; Baleghizade et al., 2018; Bastanfar & Hashemi, 2010; Davoudi & Yousefi, 2016; Harji et al., 2010; Hessamy & Ghaderi, 2014; Siahpoosh et al., 2017; Soleimani & Akbari, 2013) there is much room for additional study with regard to vocabulary; especially vocabulary assessment.

During the recent years, there has been a shift in research focus away from traditional tests of vocabulary to more helpful techniques that may provide formative help to students by evaluating the interaction between assessments and learning (assessment for learning). (Alvarez et al., 2014; Chan, 2021; Kohnke et al; 2019; Masita, & Fitri, 2020; Seifoori & Ahmadi, 2017; Shi, 2017; Siahpoosh et al., 2017; Uzun & Ertok, 2020; Yan et al; 2021). Theses technique aids students to identify their potential strong and weak points (Black & Wiliam, 1998). Assessment for learning, also known as *formative assessment*, provides appropriate feedback during the learning process which can be applied by EFL teachers to show the learners their progress. In fact, students are encouraged to be more active in their learning and associated assessment (Cotton, 1995).

Among different tools used for formative assessment of vocabulary knowledge, online applications have been rarely investigated. (Estaji & Mirzaii, 2018; Masita & Fitri, 2020; Poláková & Klímová, 2020; Yarahmadzehi & Goodarzi, 2020). One of these applications, which is the concern of this study is Kahoot. Accordingly, this study aimed at examining the impact of online formative assessment using Kahoot application on Iranian intermediate EFL learners' vocabulary knowledge and their burnout level. Hence, the following research questions were addressed in the study:

**RQ1:** Does using formative assessment by Kahoot application have any statistically significant effect on Iranian intermediate EFL learners' vocabulary knowledge?

**RQ2:** Does using formative assessment by Kahoot application have any statistically significant effect on Iranian intermediate EFL learners' burnout level?

According to the above research questions, the null hypotheses of the study were formulated as follow:

Ho1: Using formative assessment by Kahoot application does not have any statistically significant effect on Iranian intermediate EFL learners' vocabulary knowledge.

H<sub>0</sub>2: Using formative assessment by Kahoot application does not have any statistically

### **Literature Review**

#### **Summative and Formative Assessment**

The first purpose of assessment is to measure the learners' achievement of curricular goals. This type of assessment is called summative assessment which aims to measure what a student has learnt and mostly is done at the end of a course of instruction" (Abeywickrama & Brown, 2010, p. 7). Therefore, general summative assessment tools are achievement tests which are used at the end of teaching programs in order to understand whether or not the students mastered the specified learning outcomes (Abeywickrama & Brown, 2010). Summative assessment can be done either as a classroom-based practice or as a large-scale standardized testing program, depending on the type of educational system. Formative assessment, on the other hand, is defined by Cotton (1995) as "an assessment that is intended to ascertain how much progress a learner is making during learning and to provide feedback on it" (p. 24). Black and Wiliam (1998) defined formative assessment as a process, managed by teachers and students, which provides data of student achievement and can be used to plan future instructional goals. This type of assessment focuses on consistent checking and collecting evidence of student knowledge development during the course. (Alvarez et al., 2014).

Although, formative assessment appears to be beneficial for vocabulary learning/teaching purposes, studying the related literature showed that only a few studies have been done in this area (e.g., Seifoori and Ahmadi, 2017; Shi, 2017; Siahpoosh et al., 2019).

# Mobile Based Learning and Assessment and Related Studies

During the recent years, the advancement of mobile technology and its widspread use among the students have developed the opportunities to change the traditional educational contexts to the more modern mobile learning environments (Poláková & Klímová, 2020). Students may use a variety of mobile applications to find educational resources, in order to connect with other learners and teachers, as well as to create evidences for the learning that is provided by applying mobile assessment tools. Using these mobile learning applications in instructional programs expands teachers' opportunity for students' achievement and aid teachers to observe and evaluate their students in an authentic context.

Many researchers have investigated the implementation of mobile learning in educational contexts, and have found generally positive attitudes from students (Poláková & Klímová, 2020). However, despite the beneficial effects of using mobile-based applications in education, the effect of using these applications in second language vocabulary assessment have been the focus of attention only recently. (Hadijah et al; 2020; Mahapatra, 2021; Masita & Fitri, 2020; Poláková & Klímová, 2020; Remmi & Hashim, 2021; Yarahmadzehi & Goodarzi, 2020).

Poláková & Klímová (2020) examined the effect of using a mobile assessment application called 'Angličtina today' in second language vocabulary instruction. According to them, it was developed to assist learners to improve their vocabulary knowledge, performance, and motivation, and to improve their attitudes toward learning. The application consisted of two parts: The first part was a mobile platform designed for teachers and the second part was a server intended to be used by students. The server part, was also a web interface for the teachers, which could store information, authenticate the users, collect large data, and process, as well as, distribute messages. In fact, using the application the teachers were able to manage several courses. Teachers had to uploade new vocabulary into each class, register the students, distribute the alerts via notifications, and respond to students' comments.

The next part of the application was designed as a mobile application for learners. Learners participated into a specific course providing the vocabulary based on the curricullar needs. This application gave students chances to test provided words and phrases and hence to improve their vocabulary knowledge. Since the application provided the opportunity for communication with the teacher, students could obtain immediate feedback on their performance. The application also could collect the data and distribute it to the server part.

Hadijah et al., (2020), in their study investigated students' view on using the "Kahoot!" interactive game as a tool for vocabulary assessment at a public senior high school in Yogyakarta Indonesia. Five voluntarily participating students took part in the study. The researchers used a semi-structured interview as the data collection instrument. They used the theme-based analysis and their findings indicated that Kahoot was more practical to be used as a vocabulary test. In fact, the game can help the students to concentrate better on the test. Finally, it could help the students to be more active and enthusiastic in doing the test. However, this research also clarified some negative aspects of using Kahoot; first, obtaining lower scores than other students could make the students feel less confident. Second, lack of knowledge in using the application could create some problems; and finally, the time was limitation was another deficiency.

Another study conducted by Pede's (2017) aimed to examine the effect of the kahoot online game on acquisition of science vocabulary in students with learning difficulties in a middle school classroom. The study investigated three aspects of amount of vocabulary acquisition, their on task behavior, and their level of satisfaction. Vocabulary acquisition was evaluated using weekly vocabulary assessments. The results clarified that using kahoot twice a week improved the students' vocabulary scores. Using Kahoot also was shown to improve students' focus and on task behavior.

#### Burnout

The idea of burnout has been the focus of attention in psychology and its related fields since the 1970s. Although burnout was basically limited to the area of human services, it has been expanded towards all types of occupations. Teachers and university faculty members' burnout had been investigated in literature (Parker, Martin, Colmar, & Liem, 2012). Evidence of burnout was also reported to be experienced by college students (e.g. Gold & Michael, 1985; Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002). For students, burnout was defined as "feeling exhausted because of study demands, having a cynical and detached attitude toward one's study and feeling incompetent as a student" (Schmitt, Schmitt, & Clapham, 2001, p. 465).

Although, previous research has mainly investigated the factors involving student burnout (e.g. Alarcon, Edwards, & Menke, 2011), university students' level of burnout has been rarely examined. In one of these studies done by Schaufeli et al (2002) it was concluded that burnout could negatively affect academic performance. In another study, it was shown that emotional exhaustion could reduce felt accomplishment and commitment (Neumann, Finaly-Neumann, & Reichel, 1990).

Maslach, Schaufeli, and Leiter (2001) identified three recent trends in burnout research that all boil down to a broadening of the traditional concept and scope). First, the burnout concept has already been extended to all types of professions and occupations. For instance, it has been clarified that burnout could be experienced by students too (e.g., Balogun, Helgemoe, Pellegrini, & Hoeberlein, 1996; Gold & Michael, 1985). The fact that burnout was initially only restricted to human was due to the almost global use of the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981) which could only be used among professional workers because it includes aspects that are explained in terms of connections with recipients. The development of the MBI-General Survey (MBI-GS) (Schaufeli, Leiter, Maslach, & Jackson, 1996) facilitated doing the burnout studies in areas other than the human services because its aspects were defined more holistically and do not consider only working with recipients: first, exhaustion was evaluated by indexes that refer to fatigue rather than direct reference to others as the source of related feelings; second, cynicism reflected indifference toward work in general, rather than with other people; and finally, professional efficacy had a wider focus in comparison with the original MBI scale, including both social and nonsocial aspects of occupational goals. Psychometric researches on the scale using confirmatory factor analysis indicated that the three-factor scale is more or less the same among different occupations (e.g., Leiter & Schaufeli, 1996; Taris, Schreurs, & Schaufeli, 1999).

#### Method

#### **Participants**

The target population was Iranian EFL learners who were at the intermediate level of English language proficiency. The initial participants of this study were 120 female EFL learners whose age ranged from 12 to 16 from Homa English Language Institute in Shahr-e-Qods. To choose 60 homogeneous participants, the Oxford Placement Test (OPT) was administered, and the students whose scores fell between one standard deviation above and below the mean were selected. Then, they were divided into two equal groups as control and experimental.

#### Instruments

To reach the goals of the study, the following materials were used.

# **OPT** (Oxford Placement Test)

To choose 60 homogeneous participants, the OPT was used in this study. It is an English language proficiency test developed by Oxford University Press and University of Cambridge Local Examinations Syndicate. It is a very flexible, almost reliable, and more or less time-saving method of finding someone's level of English proficiency (Hill & Taylor, 2004). Its administration is easy, quick, and appropriate for placement testing and examination scoring and takes approximately 60 minutes to administer. It includes 60 multiple-choice questions; the real signs in cities (5 questions), 3 cloze tests (15 questions), and grammatical rules (20 questions), 2 cloze tests (10 questions) as well as 10 multiple-choice questions related to vocabulary knowledge. The answers are written directly on the answer sheet; and the answer

sheets could be easily and quickly scored by using the answer key. The test measures the knowledge of structure, and also is considered as an overall measure of ability in a language or other content areas. The test has high reliability ( $\alpha$ =.91) based on Cronbach's alpha and has been also identified to have high construct validity (Nematizadeh, 2011; Wistner, Sakai, & Abe, 2009).

# **Burnout Questionnaire**

This questionnaire measured the learners' burnout before and after the treatment sessions. It is a modified version of Maslach, Jackson, Leiter, Schaufeli, and Schwab' (1996) questionnaire that was adapted for use for student samples by Schaufeli et al. (2002) (See Appendix A). Therefore, it is a valid questionnaire and to estimate its reliability, the Cronbach's Alpha formula was calculated to be(R = 0.7).

# **Pre- and Posttest**

The participants' vocabulary knowledge was assessed via a researcher-made test based on the course book they studied. The test was used as pre- and posttest and includes 20 multiplechoice questions which measured the participants' receptive vocabulary knowledge. This test was administered in 20 minutes (See Appendix B). This researcher-made test was validated by two TEFL university instructors and the researcher used Kuder-Richardson 20 (KR-20) for 20 questions to calculate the reliability of the test.

# Course book

The course book of learners during this study was the third volume of Four Corners. This course book includes 12 units and its four first units were taught. The themes of the lessons include: education, personal stories, style and fashion, interesting lives.

# Kahoot Application

Kahoot is a game-based instructional platform, which is used as an educational technology advice in different educational institutions. The games or 'Kahoots', consist of multiple-choice questions to be answered by the students which can be accessed via a web browser or the Kahoot app. It can aid students review the instructional materials, which can help formative assessment, or can be used as a replacement for traditional classroom activities. Kahoot also consists of trivia quizzes (Wikipedia, 2019). The teacher can make different quizzes on this application and ask the students to use them for during the course of study.

# Procedure

To carry out this study, 120 English language learners were requested to take part in the OPT in 60 minutes. Then, the participants whose exam scores were one standard deviation above and below the mean were chosen for the study. Then the selected participants were asked to response the burnout questionnaire (See Appendix A) in thirty minutes. After that, they took part in the researcher-made vocabulary pretest (See Appendix B).

The teacher started teaching the lessons of the course book based on the teacher's guide and covered four first units in 10 sessions. Each unit includes conversations, new vocabulary sections, grammar rules, listening and writing activities. After presenting the new vocabulary of each lesson, the participants were asked to practice the new vocabulary using Kahoot application. They reviewed and practiced the new vocabulary playing some games which were provided by the teacher in advance. They were also required to have a vocabulary test assessing the new vocabulary of each lesson to consolidate their learning. The participants' performance in Kahoot quizzes was monitored and checked by the teacher during each session. The Kahoot application gives feedback on the learners' activities automatically and the teacher does not need to do something regarding the assessment.

In the control group, the participants just did the activities in their student and workbook. Each lesson had some vocabulary activities, such as matching pictures with the words, matching definition with the words, filling the blanks with suitable words, choosing a correct word in multiple choice item, etc., which should be done by the participants and after they did the activities, the teacher asked them to compare their answers with their classmates and finally, the teacher checked their answers, and gave feedback when needed. This procedure lasted for ten sessions and the students in both groups studied the same lessons. After ten sessions, the participants were asked to take part in the posttest and fill out the burnout questionnaire again.

#### Results

This section includes the result of OPT, the details of the normality test, and the independent-samples t-test, to compare the results of the two groups in the posttests.

#### The Results of OPT

First, in order to select 60 homogenous participants, 120 female EFL learners whose age ranged from 12 to 16 from Homa English Language Institute in Shahr-e-Qods took part in an OPT. Table 1 shows the mean and the standard deviation of the OPT.

<b>Table 1</b> The Results of OPT					
	Ν	Minimum	Maximum	Mean	Std. Deviation
OPT	100	31	45	36.66	4.506
Valid N (listwise)	100				

According to the results of the OPT (M=36.66 and Std.=4.50), sixty learners whose score ranged between one standard deviation above and below the mean were selected and divided into two groups of 30 as one control and one experimental.

#### The Reliability of the Pre- and Posttest

In order to estimate the reliability of the researcher-made vocabulary test, which was used in the pre- and posttest, the researcher used Kuder-Richardson 20 (KR-20) for 20 questions. Table 2 shows that the reliability of the vocabulary test was .78. Therefore, the vocabulary test enjoyed a high reliability.

# Table 2

The Reliability of Vocabulary Test	
KR-20	N of Items
.78	20

### **Normality Test**

The researchers run one-sample Kolmogorov-Smirnov test to check the normality of the data. This test shows that a variable is not normally distributed if '*Sig.*' < 0.05 (Pallant, 2013). Table 3 shows the results of normality test.

#### Table 3

Tests of Normality

		Kolmogoro		
	Groups	Statistic	df	Sig.
Pretest	Experimental Group	.125	20	$.200^{*}$
	Control Group	.167	20	.148
Posttest	Experimental Group	.129	20	$.200^{*}$
	Control Group	.282	20	.150

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

As Table 3 shows, there were totally four groups of data which were gathered by pre- and posttest. As the numbers in *Sig.* column in the above table show, the results had a normal distribution (p= .200, .148, .200, .150; p>.05); therefore, parametric tests such as a paired-samples t-test and an independent-samples t-test could be applied.

# The Reliability of Burnout Questionnaire

Table 4 shows the results of Cronbach's Alpha of the reliability of the Burnout questionnaire. Cronbach's Alpha was computed for 24 items of the questionnaire and the results produced an *alpha* of 0.70 (P>.7) which displays a suitable value for a questionnaire (Pallant, 2013).

#### Table 4

The Reliability of Burnout Questionnaire					
Cronbach's Alpha	N of Items				
.707	24				

# **The First Research Question**

Hamedi, Fakhraee Faruji, and Amiri Kordestani, The Effectiveness of Using Formative Assessment by Kahoot Application on Iranian Intermediate EFL Learners' Vocabulary Knowledge and Burnout Level

To discover whether using formative assessment by Kahoot application had a statistically significant effect on Iranian intermediate EFL learners' vocabulary knowledge, the researcher performed the independent-samples t-test. Table 5 indicates the mean scores of the control group (M=5.16, Sd=.73) and the experimental group (M=5.21, Sd=.71) in the pretest.

#### Table 5

					Std.	Error
	Groups	Ν	Mean	Std. DeviationMean		
Pretest	Control Group	30	5.1667	.73641	.13445	
	Experimental Group	30	5.2167	.71297	.13017	

Group Statistics of Groups in the Pretest

Table 5 shows that there was not a statistically significant difference between the groups in the pretest (P>0.05, P=.72). Therefore, the result confirmed that both groups were at the same level and homogenous.

### Table 6

Independent-Samples T-Test of Groups in the Pretest	
Levene's Test for Equality of Variances	

Levene	Levene's Test for Equality of Variances									
	t-test for Equality of Means									
									95% C	onfidence
						Sig.		Std.	Interval	of the
						(2-	Mean	Error	Difference	e
		F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper
Equal	variances	.124	.726	-	58	.790	05000	.18714	-	.32460
assumed				267					.42460	
Equal	variances			-	57.939	.790	05000	.18714	-	.32461
not assume	ed		•	267					.42461	

The researcher similarly performed the independent-samples t-test to compare the posttest of the groups. Table 6 indicates the mean scores of the control group (M=15.40, Sd.=3) and the experimental group (M=18, Sd.=1.4) in the posttest.

# Table 7

Group Sta	tistics in the Posttest					
				Std.	Std.	Error
	Groups	Ν	Mean	Deviation	Mean	
Posttest	Control Group	30	15.4000	3.08053	.56242	
	Experimental Group	30	18.0000	1.43839	.26261	

Table 7 indicates that there was a statistically significant difference between the control group and the experimental group in the posttest (P < .05, P = .01).

1 aut	60									
Indep	pendent	-Samples	T-Test o	f Groi	ups on th	e Postte.	st			
Levene's	Test for	r Equality	of Varia	ances						
				t-tes	t for Equ	ality of l	Means			
									95% <b>(</b>	Confidence
						Sig.		Std.	Interval	of the
						(2-	Mean	Error	Difference	e
		F	Sig.	t	df	tailed)	Difference	Difference	Lower	r Upper
Equal		19.117	.000	-	58	.000	-2.60000	.62072	-	-
variances			4	.189					3.84250	1.35750
assumed				-	41.07	2 .000	-2.60000	.62072	-	-
Equal			4	.189					3.85349	1.34651
variances	not									
assumed										

#### Table 8

Consequently, the results of the comparison of the two groups in the pre- and posttest rejected the first null hypothesis of this study, and it was confirmed that using formative assessment by Kahoot application had a statistically significant effect on Iranian intermediate EFL learners' vocabulary knowledge.

# **The Second Research Question**

To find out whether using formative assessment by Kahoot application had any statistically significant effect on Iranian intermediate EFL learners' burnout level. The researcher performed the independent-samples t-test. Table 9 indicates the mean scores of the control group (M=2.91, Sd=.83) and the experimental group (M=2.96, Sd=.75) in the pretest of burnout.

# Table 9

	Group Statistics in the Pretest of Burnout			
-				Std.
	Groups	Ν	Mean	Deviation

				biu.	Dia.	LIIO
	Groups	Ν	Mean	Deviation	Mean	
Pretes_Burnout	Control Group	30	2.9167	.83132	.15178	3
	Experimental Group	30	2.9667	.75810	.13841	-

Table 9 displays that there was not a statistically significant difference between the burnout level of the groups in the pretest (P>0.05, P=.60).

Std

Frror

Independent-Samples T-Test of Groups in the Pretest of Burnout										
Levene's Test for Equality of Variances										
t-test for Equality of Means										
	-	95% Confidence								
	Sig. Std.							Std.	Interval	of the
		(2- Mean Error						Error	Difference	
		F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper
Equal	variances	.273	.603	-	58	.809	05000	.20541	-	.36117
assumed			.2	243					.46117	
Equal	variances			-	57.514	4 .809	05000	.20541	-	.36125
not assumed .243			243					.46125		

# Table 10

The researcher likewise run the independent-samples t-test to compare the burnout level of the participants in the posttest of the groups. Table 10 indicates the mean scores of the control group (M=2.95, Sd=.80) and the experimental group (M=3.6, Sd=.58) in the posttest.

Table 11				
Group Statistics in t	he Posttest of Burnout			
			Std.	Std. Error
	groups	Ν	Mean Deviation	Mean
Posttest_Burnout	Control Group	30	2.9500 .80075	.14620
	Experimental Group	30	3.6667 .58329	.10649

Table 11 indicates that there was a statistically significant difference between the burnout level of the groups in the posttest (P < .05, P = .03).

#### Table 1

Independent-Samples T-Test of Groups in the Posttest of Burnout Levene's Test for Equality of Variances

		t-test for Equality of Means								
	_								95%	
									Confiden	ce
						Sig.		Std.	Interval	of the
						(2-	Mean	Error	Difference	e
		F	Sig.	t	df	tailed)	Differenc	eDifference	e Lower	r Upper
Equal	variances	4.517	.038	-	58	.000	-	.18087	-	-
assumed			3	.962			.71667		1.07872	.35461
Equal	variances			-	53.014	.000	-	.18087	-	-
not assumed			3	.962			.71667		1.07945	.35389

Thus, the results of the comparison of the two groups' burnout level in the pre- and posttest rejected the second null hypothesis of this study, and it was confirmed that using formative assessment by Kahoot application had a statistically significant effect on reducing the Iranian intermediate EFL learners' burnout level.

Hamedi, Fakhraee Faruji, and Amiri Kordestani, The Effectiveness of Using Formative Assessment by Kahoot Application on Iranian Intermediate EFL Learners' Vocabulary Knowledge and Burnout Level

# **Discussion and Conclusion**

The preceding results suggested that using Kahoot, as an online tool for formative assessment, had statistically significant effects on vocabulary knowledge as well as burnout level of Iranian EFL learners. In other words, using this online application could enhance the vocabulary knowledge of the learners and on the other hand, using this application had also a statistically significant effect on reducing the burnout level of language learners.

In fact, the mobile based assessment application, can help the teachers monitor the learning process, increase teachers' access to students' achievements, and help make them to make decisions about later modification of the lesson plan to help students boost their learning performance.

Correspondingly, the findings displayed that using Kahoot, as a gamification platform, engaged the learners in learning process and they also tended to use it more than other traditional types of paper and pencil activities; therefore, it reduced their burnout level.

Furthermore, the results of the present study are also in line with the outcomes of the study conducted by Pede's (2017) which investigated the effect of the Kahoot online game on science vocabulary development of students with learning difficulties in a middle school physical science classroom. He found that all students improved their vocabulary knowledge scores by using kahoot twice weekly; moreover, the use of Kahoot also was beneficial for students' focus and on task behavior.

The results of the study also confirmed the ones obtained by other researches which have reported the positive effects of using mobile applications in language assessment. (e. g., Hadijah et al; 2020; Mahapatra, 2021; Masita & Fitri, 2020; Poláková & Klímová, 2020; Remmi & Hashim, 2021; Yarahmadzehi & Goodarzi, 2020).

The findings of the current study can be summarized as follows. Firstly, this work contributes to existing literature that using Kahoot application as a formative assessment tool could be an effective tool for vocabulary learning and developing ESL/EFL learners' vocabulary knowledge. It can engage the learners' in the learning process as well as providing a comprehensive practice activity for practicing new vocabulary.

In addition, the present study provides additional evidence with respect to using this application that could be an operative tool for reducing the burnout level of the learners. Learning new vocabulary and developing the vocabulary knowledge needs a lot of practice and the learners' burnout level is a matter. Using this application can aid the learners, while they have a low level of burnout, to practice new vocabulary in order to learn them.

The current study intended to explore the effect of online formative assessment by Kahoot application on Iranian intermediate EFL learners' vocabulary knowledge and burnout and its findings could be significant for EFL learners who need to use innovative techniques to develop

their vocabulary knowledge. In addition, the findings could be vital for EFL teachers who search to find more effective techniques to apply for teaching and practicing vocabulary. They can assess their learners formatively using Kahoot application to aid them to develop their vocabulary knowledge as well as decreasing their burnout. Finally, the findings could be important for teacher trainers and they can introduce this technique in their training courses to EFL teachers.

One of the concerns of language learners and teachers is the ability of vocabulary retention and using them in speaking and writing, as two productive skills. Therefore, a further research with regard to the use of Kahoot can be carried out to check its impact on vocabulary retention and use. In addition, a further study could be conducted to check the impact of using Kahoot on speaking accuracy and fluency of learners. Moreover, word choice in writing is one the important abilities in writing and English language learners need to be able to choose correct words for any type of contexts. A further research may be done regarding the impact of using Kahoot on word choice in writing. Finally, affective factors such as motivation, self-esteem, self-regulation, etc. are important factors in language learning. A further investigation can be performed regarding the impact of using this application on different affective factors.

Vocabulary learning has been considered as one of the problematic issues for all language learners in Iranian EFL contexts and its importance in language learning is not deniable. The present study aimed at examining the impact of online formative assessment by Kahoot application on Iranian intermediate EFL learners' vocabulary knowledge and burnout. The analyses of the obtained data showed that using Kahoot as a formative assessment tool, on the one hand, could be effective for vocabulary knowledge, and on the other hand, it also reduces the burnout level of the language learners.

#### References

- Abeywickrama, P., & Brown, H. D. (2010). *Language assessment: Principles and classroom practices*. London: Pearson Longman.
- Alarcon, G. M., Edwards, J. M., & Menke, L. E. (2011). Student burnout and engagement: A test of the conservation of resources theory. *The Journal of Psychology*, 145(3), 211-227.
- Alvarez, L., Ananda, S., Walqui, A., Sato, E., & Rabinowitz, S. (2014). *Focusing formative* assessment on the needs of English language learners. San Francisco, CA: WestE
- Anderson, R. C., & Freebody, P. (1981). Vocabulary knowledge. In J. T. Guthire (Ed.), *Comprehension and teaching: Research reviews* (pp. 77-117). Neward, D: International Reading Association.
- Ashraf, H., Motlagh, F. G., & Salami, M. (2014). The impact of online games on learning English vocabulary by Iranian (low-intermediate) EFL learners. *Procedia-Social and Behavioral Sciences*, 98(1), 286-291.
- Baleghizadeh, S., Yazdanjoo, S., & Fallahpour, H. (2018). The effect of input enhancement on academic vocabulary learning among intermediate EFL learners in Iran. *TESL Reporter*, 50(2), 31-48.
- Bastanfar, A., & Hashemi, T. (2010). Vocabulary learning strategies and ELT materials: A study of the extent to which VLS research informs local coursebooks in Iran. *International Education Studies*, *3*(3), 158-166.

Hamedi, Fakhraee Faruji, and Amiri Kordestani, The Effectiveness of Using Formative Assessment by Kahoot Application on Iranian Intermediate EFL Learners' Vocabulary Knowledge and Burnout Level

- Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education:* principles, policy & practice, 5(1), 7-74.
- Chan, K. T. (2021). Embedding Formative Assessment in Blended Learning Environment: The Case of Secondary Chinese Language Teaching in Singapore. *Education Sciences*, 11(7), 360.
- Cotton, K. (1995). *Effective schooling practices: A research synthesis, 1995 update.* Portland: Northwest Regional Educational Laboratory.
- Davoudi, M., & Yousefi, D. (2016). The effect of keyword method on vocabulary retention of senior high school EFL learners in Iran. *Journal of Education and Practice*, 7(11), 106-113.
- Estaji, M., & Mirzaii, M. (2018). Enhancing EFL learners' vocabulary learning through formative assessment: Is the effort worth expending?. *Language Learning in Higher Education*, 8(2), 239-264.
- Gold, Y., & Michael, W. B. (1985). Academic self-concept correlates of potential burnout in a sample offirst-semester elementary school practice teachers: Aconcurrent validity study. *Educational andPsychological Measurement*, 45(1), 909-914.
- Hadijah, H., Pratolo, B. W., & Rondiyah, R. (2020). Interactive game "Kahoot!" as the media of students' vocabulary assessment. *Journal on English as a Foreign Language*, 10(1), 84-102.
- Harji, M. B., Woods, P. C., & Alavi, Z. K. (2010). The Effect of Viewing Subtitled Videos on Vocabulary Learning. *Journal of College Teaching & Learning (TLC)*, 7(9), 1-10.
- Hessamy, G., & Ghaderi, E. (2014). The role of dynamic assessment in the vocabulary learning of Iranian EFL learners. Procedia-Social and Behavioral Sciences, 98, 645-652.
- Kohnke, L., Zhang, R., & Zou, D. (2019). Using mobile vocabulary learning apps as aids to knowledge retention: Business vocabulary acquisition. *Journal of Asia TEFL*, 16(2), 683.
- Laufer, B., Elder, C., Hill, K., & Congdon, P. (2004). Size and strength: do we need both to measure vocabulary knowledge? *Language Testing*, 21(2), 202-226.
- Leiter, M. P., & Schaufeli, W. B. (1996). Consistency of the burnout construct across occupations. *Anxiety, Stress, and Coping*, 9(3), 229-243.
- Mahapatra, S. K. (2021). Online formative assessment and feedback practices of ESL teachers in India, Bangladesh and Nepal: A multiple case study. *The Asia-Pacific Education Researcher*, *30*(6), 519-530.
- Masita, M., & Fitri, N. (2020). The Use of Plickers for Formative Assessment of Vocabulary Mastery. Ethical Lingua: Journal of Language Teaching and Literature, 7(2), 311-320.
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, 2(1), 99-113.
- Maslach, C., Jackson, S. E., Leiter, M. P., Schaufeli, W. B., & Schwab, R. L. (1996). Maslach burnout: General survey. In C. Maslach, S. E. Jackson, & M. P. Leiter (Eds.), *The Maslach burnout inventory: Test manual* (pp. 191-21). Palo Alto, CA: Consulting Psychologists Press.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. Annual Review of Psychology, 52, 397-422.
- Milton, J., Wade, J., & Hopkins, N. (2010). Aural word recognition and oral competence in English as a foreign language. *Insights into Non-Native Vocabulary Teaching and Learning*, 1(1), 83-98.
- Nematizadeh, S. (2011). *The relationship between gender and learner types and oral performance of Iranian EFL students*. (Unpublished M.A. Thesis), Islamic Azad

University Science and Research Branch, Tehran, Iran.

- Neumann, Y., Finaly-Neumann, E., & Reichel, A. (1990). Determinants and consequences of students' burnout in universities. *The Journal of Higher Education*, 61(1), 20-31. Pallant, J. (2013). SPSS survival manual. UK: McGraw-Hill Education.
- Parker, P. D., Martin, A. J., Colmar, S., & Liem, G. A. (2012). Teachers' workplace well-being: Exploring a process model of goal orientation, coping behavior, engagement, and burnout. *Teaching and Teacher Education*, 28(4), 503-513.
- Pede, J. (2017). *The effects of the online game Kahoot on science vocabulary acquisition.* (Unpublished M.A. Theses), Rowan University, Rowan .
- Poláková, P., & Klímová, B. (2020). Assessment of vocabulary knowledge through a mobile application. Procedia Computer Science, 176, 1523-1530.

Remmi, F., & Hashim, H. (2021). Primary school teachers' usage and perception of online formative assessment tools in language assessment. International Journal of Academic Research in Progressive Education and Development, 10(1), 290-303.

- Schaufeli, W. B., Leiter, M. P., Maslach, C., & Jackson, S. E. (1996). Maslach burnout inventory: General survey. In C. Maslach, S. E. Jackson, & M. P. Leiter (Eds.), *The Maslach burnout inventory: Test manual* (3rd ed., pp. 25-55). Palo Alto, CA: Consulting Psychologists Press.
- Schaufeli, W. B., Martinez, I. M., Pinto, A. M., Salanova, M., & Bakker, A. B. (2002). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology*, 33(5), 464-481.
- Seifoori, Z., & Ahmadi, H. (2017). EFL Learners' Learning and Retention of Phrasal Verbs and Lexical Collocations: Contributions from Formative Assessment. *Journal of Modern Research in English Language Studies*, 4(2), 62-47.
- Shi, H. (2017). Examining the effectiveness of formative assessment in English vocabulary learning of senior high school students in China. Asian EFL Journal, 101(5), 61-82.
- Siahpoosh, H., Ilkhani, S., Rad, M. K., & Lotfi, S. (2019). The effect of formative quizzes versus summative exams on vocabulary knowledge of intermediate Iranian EFL learners. *Specialty Journal of Language Studies and Literature*, 3(4), 18-33.
- Soleimani, H., & Akbari, M. (2013). The effect of storytelling on children's learning English vocabulary: A case in Iran. International Research Journal of Applied and Basic Sciences, 4(11), 4005-4014.
- Stæhr, L. S. (2008). Vocabulary size and the skills of listening, reading and writing. *Language Learning Journal*, *36*(2), 139-152.
- Taris, T. W., Schreurs, P. J., & Schaufeli, W. B. (1999). Construct validity of the Maslach burnout inventory-general survey: A two-sample examination of its factor structure and correlates. *Work & Stress*, 13(3), 223-237.
- Uzun, L., & Ertok, Ş. Student Opinions on task-based approach as formative evaluation versus exam-based approach as summative evaluation in education. Sakarya University Journal of Education, 10(2), 226-250.
- Wikipedia. (2019). *Kahoot!* Retrieved 12, 25, 2019, from https://en.wikipedia.org/wiki/Kahoot!
- Wilkins, D. (1972). Linguistics in language teaching. Suffolk: The Chaucer Press.

Wistner, B., Sakai, H., & Abe, M. (2009). An analysis of the Oxford Placement Test and the Michigan English Placement Test as L2 proficiency tests. *Bulletin of the Faculty of Letters, Hosei University, 58,* 33-44. Retrieved from http://www.academia.edu/download/

Yarahmadzehi, N., & Goodarzi, M. (2020). Investigating the role of formative mobile based assessment in vocabulary learning of pre-intermediate EFL learners in

comparison with paper based assessment. *Turkish Online Journal of Distance Education*, 21(1), 181-196.

Yan, Z., Li, Z., Panadero, E., Yang, M., Yang, L., & Lao, H. (2021). A systematic review on factors influencing teachers' intentions and implementations regarding formative assessment. Assessment in Education: Principles, Policy & Practice, 28(3), 228-260.

# Appendices

# **Appendix A: Burnout Questionnaire**

<b>Exhaustion</b> 1. I feel emotionally drained by my studies. 2. I feel used up at the end of a day at institute. 3. I feel tired when I get up in the morning and I have	Strongly Disagree (1)	Disagree (2)	Undecided (3)	Agree (4)	Strongly Agree (5)
to face another day at the institute.					
<ul><li>4. Studying or attending a class is really a strain for me.</li><li>5. I feel burned out from my studies.</li></ul>					
<b>Cynicism</b> 1. I have become less					
interested in my studies since my enrollment at the institute.					
2. I have become less					
enthusiastic about my studies.					
3. I have become more					
cynical about the potential usefulness of my studies.					
4. I doubt the significance					
of my studies. <b>Professional Efficacy</b>					
1. I effectively solve the					
problems that arise in my studies.					
2. I believe that I make an effective contribution to the					
classes that I attend.					
3. In my opinion, I am a good student.					
4. I feel stimulated when					
I achieve my study goals.					
5. I have learned many interesting things during the					
course of my studies.					
6. During class I feel confident that I am effective					
in getting things done.					
Vigor					
1. When I'm studying, I feel mentally strong.					
,					_

2. I continue for a very long time when I am studying.

3. When I study, I feel like I am bursting with energy.

4. When studying I feel strong and vigorous.

5. When I get up in the morning, I feel like going to class.

#### Dedication

1. I find my studies to be full of meaning and purpose.

My studies inspire me.
I am enthusiastic about my studies.

4. I am proud of my studies.

5. I find my studies challenging.

#### Absorption

1. Time fly when I'm studying.

2. When I am studying, I forget everything else around me.

3. I feel happy when I am studying intensively.

4. I can get carried away by my studies.

# **Appendix B: Pre- and Posttest**

1- Cross out the odd word.								
a) algebra b) math	c) history	d) geometry						
2 is the study of living orga	· · · · · ·	a) Bronnen j						
a) biology b) chronology c) methodology d) psychology 3- He looked and uncomfortable.								
a) happy c) cruel		d) valiant						
4- Wanting deeply what someone else ha	,	/						
	c) coward							
5- Cross out the odd word.	,	/ 5						
a) popular b) prominent	c) famous	d) public						
6- What is the opposite word for "advanta	ige"							
a) benefit b) superiority	c) privilege	d) detriments						
7- The synonym of glamorous is								
a) elegant c) numb	b) pretty	d) fine						
8 does not belong to the oth	her words.							
<ul><li>a) award</li><li>b) trophy</li><li>9- They the guests with song</li></ul>	c) certificate	d) medal						
9- They the guests with song	g and dance.							
a) cheered c) chose	c) tried	d) amused						
10- Which one does not match with others?								
a) reply b) answer	c) respond	d) request						
	11- Cross out the odd word.							
a) straight b) potty-belly	c) ponytail	d) curly						
12- Cross out the odd word.								
	c) mysterious	d) weird						
13- Which of the following words is the c	opposite of "flashy"?							
a) dismal b) shiny	c) gleaming	d) glossy						
14 is NOT related to wome	en style.							
a) High heels b) Bat 15 means very fashionable	c) Apron	d) Cap						
15 means very fashionable	or up to date.							
a) Ancient b) Archaic	c) Trendy	d) Antiquated						
16- Cross out the odd word.		<b>.</b>						
a) combine b) velvet	c) leather	d) cotton						
17- Tea and biscuits will be	. Enjoy yourself.	• • •						
a) provided b) prohibited 18- Schools try to teach children a set of p	c) progressed	d) proscribed						
18- Schools try to teach children a set of p	principles. 'Principles' me	ans						
a) rude b) rub		d) rule						
19- He didn't want to embarrass her by asking questions. 'Embarrass' means								
a) ashamed b) absentminded c) unintelligent d) coreless								
20. He his goal finally	.)							
a) acknowledged b) accomplished	c) misused	d) underestimated						