Using Socrative Student Response System to Learn Phrasal Verbs

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Abstract: Learning phrasal verbs, an essential part of the English language, can be a challenge for EFL students, since they find it difficult to remember the large number of these lexical items that are used in both spoken and written forms of the language. However, with the aid of technological applications, for example, Socrative, learning phrasal verbs can be more entertaining and dynamic. This paper reports on a study which involved 33 EFL students of three different levels of English (B2, C1 and C2 on the CEFR scale), who did reading and vocabulary exercises on Google forms prior to participating in competitive quizzes on Socrative. The aim of the study was to explore how the use of a Student Response System via quizzes on Socrative can arouse students' interest in learning phrasal verbs. The research examined the students' perceptions of their learning experience and to what extent they were motivated to acquire this lexicon via quizzes. The findings indicate that the general overview of the students' novel approach to learning in this way was positive, and that competing both against themselves and their peers played a significant role in their learning experience. Easily accessible on any portable device, Socrative can be seen as a reliable educational tool to enhance language learning.

Keywords: Phrasal verbs, Socrative, Student Response System, Quizzes, Competitions

Introduction

Research findings have shown that learning phrasal verbs presents a challenge for EFL students (Sinclair, 1989; Laufer & Eliasson, 1993; Seifoori & Ahmadi, 2017) regardless of their level. One of the difficulties that students tend to face when learning phrasal verbs is the fact that they are not only semantically complex, but they are ubiquitous in both written and spoken discourse; this might discourage students from using them (Laufer & Eliasson, 1993); Liao & Fukuya, 2004). Since phrasal verbs form an essential part of the English language vocabulary (Al Nasarat, 2017), their inclusion in coursebooks is vital so that teachers can instruct students on how to use them appropriately. However, these generally provide learners with overwhelming lists of phrasal

verbs and their respective definitions, with students being requested to complete matching or gap-filling exercises (Rosca & Baicchi 2016), activities which result in learning by memorizing rather than contextual understanding (Gardner & Davies, 2007; Tyler & Evans, 2004). Consequently, students very often feel demotivated and lose interest in acquiring a command of these fundamental lexical elements.

Today, it is believed that one significant development in language education is the use of technology (Kessler & Hubbard, 2017). Socrative, a mobile application created to provide educational support through a real-time question/answer system or quizzes, is becoming a popular language-acquisition tool. Also referred to as a clicker, one of its advantages is to increase students' motivation in learning and interactivity in the classroom (Faya Cerqueiro & Martin-Macho Harrison, 2019; Trindade, 2014). This Student Response System (SRS) provides instant feedback, thus leading to a positive impact on learning performance (Caldwell, 2007). Furthermore, due to advances in technical infrastructure in schools and the fact that most students bring their own digital devices to the classroom (Bradford-Networks, 2013), this free application can be conveniently used to stimulate students to practise vocabulary exercises such as those focusing on phrasal verbs.

Comparatively little work has been done on SRS use in second language classes (Mork, 2014). Aiming, therefore, to contribute to this field of research, the current study describes a project that involved the use of Google forms and the Socrative application in three different-level EFL classes in a private language school for one semester. The students read short texts consisting of different phrasal verbs, and completed their vocabulary exercises prior to doing their quizzes on Socrative. The purpose of this research is to shed some light on the use of SRS via quizzes to motivate students to learn phrasal verbs, both by exploring their perceptions of their learning experience and by considering how they can be stimulated to learn via quizzes.

Literature review

Teaching and learning phrasal verbs

A phrasal verb is a verb followed by a particle or a combination of a particle and a preposition, the meaning of which is different from the meaning of its separate parts; for example, 'get up' or 'get out of' (Koprowski, 2005; Lewis, 1993; Darwin & Gray, 1999). In other words, the meaning of the combination cannot be predicted from the meaning of verb and particle in isolation (Trask, 1993). In contrast, a prepositional verb, that is, a verb + a preposition, such as 'look at', is considered more transparent in meaning. Grammatically, these structures are categorized as transitive (e.g. He looked at the painting on the wall), or intransitive (e.g. He gets up early every day). Also, combinations can be separable (e.g. He looked up the word/He looked the word up) or, in the case of prepositional verbs, inseparable (e.g. She bumped into her friend).

Whilst phrasal verbs are extensively used by native speakers of English, mainly in speech and informal writing contexts (Azzaro, 2012), language learners find it daunting to acquire them as part of their instruction (Kao, 2001). One of the reasons is that, despite memorizing long lists of verbs together with their meanings, students fail to use them accurately or recognize them in written or spoken discourse (Dainty, 1992). The same author adds that "Lists can be useful, but it may be difficult to transfer this knowledge from the written page to your active knowledge" (p. 15). Similarly, these textbook lists are often devoid of context. Therefore, students should be encouraged to master the skill of learning phrasal verbs by, for instance, reading short texts and attempting to deduce their meanings contextually, whilst finding out whether such verbs are transitive/intransitive and separable/inseparable (Cirocki, 2003; Wyss, 2002). In this regard, according to Dainty (1992), "students are able to pick up the meaning of a phrasal verb from its context even though they haven't seen it before" (p. 28). This type of exercise tends to be more productive, since lexical items that are learned in spaced reading sessions are better retained than those

memorized in a more isolated context (Thornbury, 2004; Cheon, 2006; Vurdien, 2020). In addition, Thornbury (2002) stresses that reading texts should be meaningful and contain a high frequency of phrasal verbs for students to be exposed to them. In line with this, the participants in the present study were requested to read, on a bi-weekly basis, several short texts, each of which included over ten phrasal verbs, and one of their tasks was to guess their contextual meanings.

Authentic writing is another significant task recommended in order to rouse students' interest in consolidating their learning of phrasal verbs. Students should be encouraged to write about subjects they are keen on and to incorporate a number of phrasal verbs acquired during their learning activities, thereby reinforcing retention of the targeted verbs (Cirocki, 2003). This technique was employed in the current study, as one of the tasks required the students to use in their writings the phrasal verbs they had now assimilated.

Socrative - Student Response System

Research has demonstrated that technology-based systems together with Student Response Systems (SRSs) can enhance student engagement and learning performance (Terrion & Aceti, 2012). SRSs have existed since the 1960s by means of devices called clickers (Mork, 2014); however, it is only recently that they have been recognized as tools to promote active learning. In the last decade, several mobile applications that can be used as clickers have proliferated, for example, Socrative, Kahoot or Quizlet, amongst others. Their availability, in most cases as free tools for both teachers and students, facilitates their implementation in the language classroom to enrich the learning environment. Socrative, the tool used in the present study, offers several benefits, the main ones being its versatility regarding the types of questions that can be designed, as well as its collaborative features between teams. The three types of questions that can be constructed are the following: (a) multiple choice, (b) short answer and (c) True/False. There is no limit concerning the number of

questions per activity or quiz. Quizzes can be stored and shared with other teachers, a useful option since simultaneous sessions can be organized in different classrooms. Socrative offers two other interesting options: 'Space Race' (used in the present study) allows for competitive quizzes to be organized, whilst 'Quick Question' can be used to invite students to give immediate answers to questions set during lessons. In addition, students receive immediate feedback, which can help them to reflect further on the questions or develop a critical thinking approach to the issue being discussed. Furthermore, identification of gaps in knowledge and understanding through feedback can be addressed instantaneously by the teacher (Dakka, 2015). A further advantage of Socrative is that students show greater engagement and enthusiasm (Awdeh *et al* 2014), which could lead to better performance.

In English language teaching these applications have been tested in several contexts and for various purposes. They have been found to increase engagement and enhance content comprehension (Kaya & Balta, 2016; El Shaban, 2017), contribute to reinforcing students' learning experience in writing courses (Mork, 2014; Ohashi, 2015; Sprague, 2016), assist in augmenting peer discussion and metacognitive awareness in English language learning (Zhonggen, 2017) and enrich flipped classroom methodology (Mehring, 2016; Hung, 2017). Despite all the benefits mentioned, two potential problems, namely, distraction and disengagement, may arise when using mobile applications in collaborative learning (Heflin *et al.*, 2017). For learning, therefore, to take place, teachers should ensure that tasks are engaging so that students are sufficiently focused.

Faya Cerqueiro *et al.* (2019) conducted a study in which Socrative was used during three sessions with a group of first-year university students. The sessions involved a review lesson, a collaborative reading activity seminar and a lecture. The findings showed that the students welcomed the use of clickers and that Socrative is an effective means of providing feedback, which may save

time during lessons. Dakka (2015), meanwhile, designed a project, lasting one semester, to incorporate SRSs to measure and assess student enhancement in higher education for level-5 engineering students. These participated in quizzes on Socrative, and the results indicated that an improvement was noticed in their performance compared with the previous semester. The study by Maesaroh *et al*. (2020) investigated the effectiveness of Socrative and Kahoot in teaching grammar to students with different interests. They reported that Socrative proved to be effective when teaching students with little interest in learning grammar, whilst Kahoot was better appreciated by students for whom grammar was important. Another study carried out at two universities in Japan employed Socrative as a formative assessment tool to review content through pre-prepared quizzes (Mork, 2014). The findings confirmed the generally positive view given by the students, who said that they considered the system to be motivating and practical. Finally, El Shaban (2017) explored her students' perceptions of Socrative as an SRS used with active learning activities. It was found that the students' level of engagement had increased, whilst the tool fostered critical thinking and encouraged collaboration.

Theoretical framework

In constructivism, learners actively construct knowledge whilst attempting to understand their experiences (Perkins, 1991). The constructivist approach highlights the importance of the learning context (Duffy & Jonassen 1991), and emphasizes that knowledge acquisition can be achieved through engagement in meaningful activities.   The integration of technology in the English language classroom can help create optimum learning conditions from a constructivist perspective (Kaya, 2015). In this vein, Ghasemi and Hashemi (2011) claim that, through the use of technology, language learners can assess, select and interpret information, evaluate their work, improve their efficiency, gain confidence and become independent. Furthermore, technology can transform classrooms into dynamic learning environments (Pitler & Hubbell, 2007), as well as augmenting students' motivation to learn, encouraging collaborative learning and aiding in

the development of critical thinking and problem-solving skills (Schacter & Fagnano, 1999).

Socrative, a simple and dynamic online student response system, can spark students' interest in learning via user-created polls, games and quizzes. Students can obtain immediate feedback on whether or not their answers are correct, or an explanation can be provided in response to incorrect answers. Thus, it permits students to work without the teacher's assistance, which encourages them to become independent learners, one of the traits of constructivism (Kaya, 2015).

In accordance with the above-mentioned assumption regarding the constructivist approach, the participants in the present research engaged in meaningful activities to construct knowledge by competing in the classroom in quizzes on phrasal verbs via the Socrative application. Their motivation was driven by the fact that they were eager to compete not only with themselves, but also their peers, which boosted their learning experience.

The present study seeks to further contribute to the existing research into student response systems by exploring the effectiveness of the Socrative application when learning phrasal verbs. The two main questions that guided this study are as follows:

(a) What are the students' perceptions of their learning experience on Socrative?

(b) How can students be motivated to learn phrasal verbs via quizzes on Socrative?

Methodology

The project

The current project, the aim of which was to motivate students to learn phrasal verbs, was designed for one semester (January-June 2019) for a group of EFL students (CEFR levels B2, C1 and C2), in a private language school in Spain. Of

the four classes that were involved, one consisted of eight students with a B2 level of English; two comprised seventeen students of C1 level; and the third class had eight C2-level students. Despite the disparity in levels, the students' common goal was to enhance vocabulary acquisition through learning phrasal verbs, and, as a result, they performed the same tasks. Google forms and the Socrative application were employed to prompt the participants to complete their bi-weekly tasks, which involved reading and completing vocabulary exercises and quizzes. Short texts containing a number of phrasal verbs, followed by a vocabulary matching exercise to check comprehension, were shared with the participants on Google forms on a bi-weekly basis. Task completion was carried out at the students' own convenience, either on their computer, tablet or smartphone. For the second part of the activity, which took place during class time, all the students used their smartphone to take part in the quizzes that focused on the phrasal verbs they had acquired from contextual reading. Ten minutes was the maximum time allowed for each quiz. The questions in the bi-weekly quizzes, comprising ten to fifteen Multiple Choice, True/False or Short Answers, were designed to stimulate the students to compete against themselves and their peers, which thereby motivated them to learn these lexical items. The third step involved a consolidation exercise, in which the participants were requested to incorporate some of the phrasal verbs they had learned, after every two quizzes, in a writing task. In total, the participants read eight short texts, did vocabulary exercises based on each one, participated in eight quizzes, and wrote four narrative/descriptive tasks. Figure 1 below shows the procedure followed in the project.
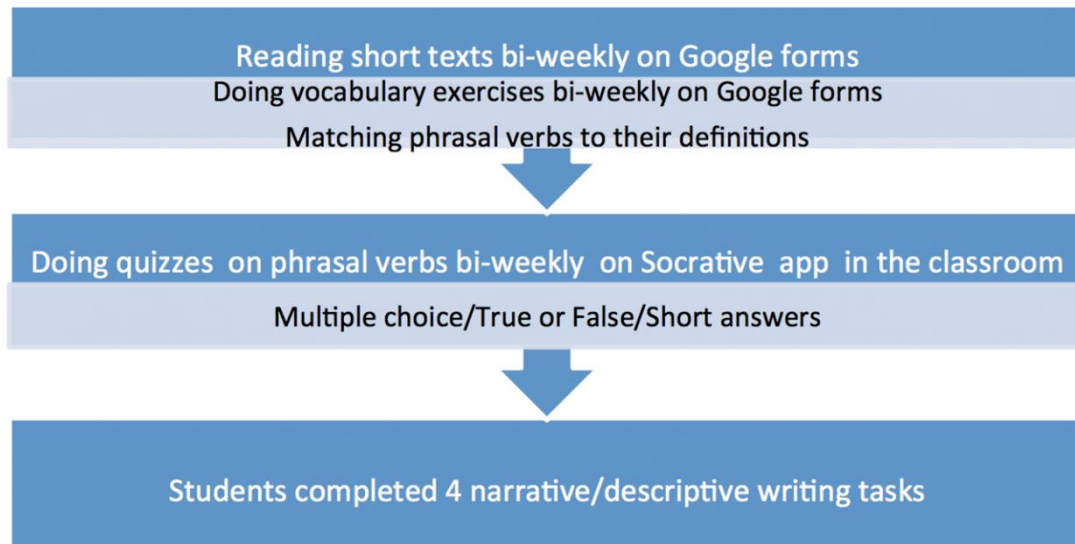
Reading short texts bi-weekly on Google forms

Doing vocabulary exercises bi-weekly on Google forms

Matching phrasal verbs to their definitions

Doing quizzes on phrasal verbs bi-weekly on Socrative app in the classroom

Multiple choice/True or False/Short answers

Students completed 4 narrative/descriptive writing tasks

Figure 1. Procedure

Participants

All 33 Spanish EFL students (19 males and 14 females) were studying at a private language school in Spain, with the aim of obtaining their Cambridge English Certificate at B2, C1 or C2 level (Common European Framework of Reference). Their L1 was Spanish and, apart from English, most of them had also studied French at school. Ages ranged from 18 to 30, and they were studying vocational education or undergraduate/postgraduate degrees in law, economics, telecommunications and medicine, amongst others. They were all conversant with the use of technological tools such as Google forms and Socrative, and, therefore, did not require any training before participating in the project.

Tasks

Eight short texts, which included different phrasal verbs, were selected from a book on phrasal verbs, namely, *English Idioms: Exercises on Phrasal Verbs* (Seidl, 1990) , and short stories on the Internet, in order to encourage the students to read and acquire these lexical items contextually. In order to check comprehension, eight vocabulary matching exercises were devised. This phase was followed by eight quizzes, consisting of Multiple Choice, True/False or Short Answers, to test the students' knowledge of the phrasal verbs learned in

the different contexts. Finally, four narrative/descriptive tasks were completed so as to ensure learning was consolidated. The topics were as follows: (a) A memorable trip; (b) An event I have attended; (c) A new sport I would like to do; and (d) A person I admire. These were chosen so that the participants could write about their own experiences. They were requested to incorporate a maximum number of ten newly learned phrasal verbs in each writing task, limited to no more than 250 to 300 words. It was hoped that the students would benefit from these activities by incorporating the new vocabulary items they had assimilated in their discourse and their writing tasks, which should enhance their performance in their Cambridge English examinations. Table 1 below shows the different texts read by the students, and Figures 2, 3 and 4 illustrate examples of exercises on Google forms and Socrative.

Table 1. Reading texts

Short texts
Stay-at-home fathers
Practice makes perfect
An imperfectly perfect day
The law and you
The poor boy
Traditions
Horoscope
Doing puzzles

An imperfectly perfect day

Read the following text before doing the exercise.

When I (1) set off for work this morning, my car broke down, so I ended up taking the bus. As soon as I got off, I (2) bumped into an old schoolmate, Mark. While we were talking, he brought up something I had already found out from some mutual friends - that he had (3) come into some money and had set up his own business. He told me that there was a lot to (4) sort out, and offered to (5) take me on, but I (6) turned him down straightaway.

When I (7) clocked in, my boss (8) had a go at me, (9) telling me off in front of everyone. When I got over the initial shock, I told her I'd (10) make up for being late, but it turned out that she had (11) blown up over a deal that had (12) fallen through after a client of mine had (13) pulled out of a contract. She told me I wouldn't (14) get away with it, that I'd (15) let everybody down, just went on and on ...

Eventually, I ran out of patience and answered back - I said I wasn't going to (16) put up with it anymore, and if she wanted to (17) lay me off, she should go ahead. Anyway, to cut a long story short, I (18) stormed out, phoned Mark's secretary, who put me through to him. I told Mark I'd like to (19) take him up on his offer. So, in the end, everything has (20) worked out perfectly!

Figure 2. Example of reading text on Google form

Figure 3. Example of vocabulary exercise
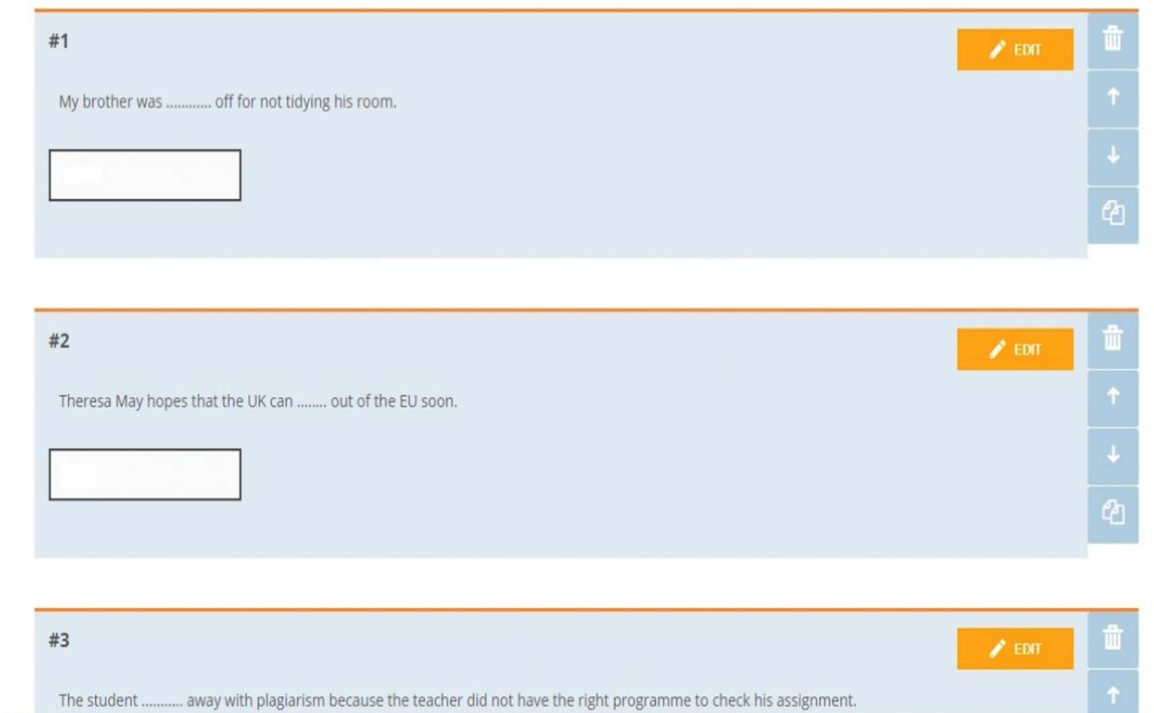
Figure 4. Example of quiz on Socrative

Data collection and analysis

This study adopted both a qualitative and quantitative approach. Data were collated from different sources, namely, the results of the eight quizzes, 132 writing tasks, two questionnaires administered at the beginning and end of the project, and individual interviews conducted on completion of the study. The initial questionnaire gathered data relating to the students' experience of learning phrasal verbs and their expectations of this novel way of acquiring these lexical items. The final questionnaire intended to collect further information regarding their perceptions of the project and the beneficial and motivational aspects of learning via quizzes on Socrative. The individual interviews, which were recorded with the students' approval, aimed at encouraging them to reflect on their feelings towards the project. Appropriately formulated questions prompted them to enlarge on their views regarding this learning experience. All thirty-three participants completed both questionnaires and agreed to be interviewed.

The students' responses to the quizzes were easily accessed and saved on Socrative as either right or wrong. The writing tasks were checked by the teacher and a record of the correct or incorrect use of the phrasal verbs was kept.

Additional data were obtained from a survey comprising twelve statements. A five-point Likert Scale ranging from 1 (I strongly disagree) to 5 (I strongly agree), was employed to assess the participants' reactions to the study (See Table 2 in Results and Discussion section). Their responses matched their perceptions of their learning experience and their motivation to learn by means of quizzes on Socrative.

A consent form was signed by all participants, who were informed that they could withdraw from the project should they decide to do so.

Results and Discussion

Students' perceptions of their learning experience

The data from the survey in Table 2 below show that the participants' evaluation of their novel approach to learning phrasal verbs tended to be positive, due to the fact that they enjoyed the experience (Table 2, statement 1, mean = 4.08, SD = 0.66) and considered contextual learning of phrasal verbs to be more meaningful, whilst it was easier to remember them than by memorizing an overwhelming list of verbs with their corresponding definitions, the way in which they are generally presented in textbooks (Gardner & Davies, 2007; Taylor & Evans, 2004).

Table 2. Survey results

Statement	Mean	Median	SD
1. I enjoyed learning phrasal verbs by reading the different texts and doing the exercises.	4.08	4	0.66
2. I found the phrasal verb quizzes on Socrative very competitive.	3.56	3	1.03

3. I had fun doing the quizzes on Socrative in class.	4.56	4	0.50
4. I felt very motivated to do the quizzes on Socrative in class.	4.34	4	0.71
5. I competed against myself every time I did the quizzes.	3.78	3	1.16
6. I competed against my peers every time I did the quizzes.	3.91	4	0.84
7. I felt satisfied to have learned a large number of phrasal verbs.	4.21	4	0.95
8. I tried to put into practice the phrasal verbs I had learned in the project.	3.91	4	0.84
9. I felt confident when I had to use the phrasal verbs in both speaking and writing.	4.25	4	0.95
10. I used my online dictionary to do the phrasal verb exercises and writing tasks.	3.60	3	0.83
11. I could understand the meaning of the phrasal verbs in their context.	4.13	4	0.62
12. I remembered the phrasal verbs I had learned through doing quizzes.	3.70	3	0.68

Contrary to the view that phrasal verbs should be learned, memorized and used as holistic units (Siyanova & Schmitt, 2007), the approach adopted in the present study meant that the students endeavoured to understand the meaning of phrasal verbs in their reading texts (Table 2, Statement 11, mean = 4.13, SD = 0.62) , thereby constructing knowledge through this learning experience. In addition, learning by means of memorization, as pointed out by Alqahtani (2015), does not always enhance comprehension. The bi-weekly quizzes designed on Socrative allowed the students to consolidate their learning of phrasal verbs and also to check their progress in vocabulary retention. Likewise, in their research Babaie and Nourdad (2014) found quizzes an effective way to acquire and retain new vocabulary for a long period of time. This finding is supported by other researchers' views that interactive input afforded by written quizzes followed by feedback can enhance students' short and long term learning of phrasal verbs (Seifoori & Ahmadi, 2017). When interviewed, some of the students claimed that prior to their participation in the current project, they would avoid using phrasal verbs because, despite the input from exercises in their textbooks, they were unable to use them accurately

and in a natural way. One possible explanation of this could be the differences between their L1 and the target language (Liao & Fukuya, 2004), since phrasal verbs do not form part of their language patterns; also, it might be attributable to the students' lack of collocational awareness (Cock, 2006) or attention to word form and use (Chen, 2019) while learning target lexical items. The majority of the participants mentioned that the project, and particularly the quizzes on Socrative, had assisted in the development of their confidence in using phrasal verbs in both speaking and writing (Table 2, statement 9, mean = 4.25, SD = 0.95).

In total, the students attempted to learn one hundred phrasal verbs contained in eight texts, some of which were repeated. Generally speaking, they seemed to have been satisfied with the large number of phrasal verbs they acquired (Table 2, statement 7, mean = 4-21, SD = 0.95). As EFL learners, one of their concerns is to have knowledge of these verbs due to their awareness that they are common in everyday usage. Regarding this assumption, Boulton (2008) posits that a phrasal verb can be encountered "more than once every five minutes in conversation" and "on every page and a half of fiction" (p. 587). Consequently, students of English believe that one of the ways to demonstrate their competence in the language is by using phrasal verbs appropriately in both their discourse and writing. Similarly, they showed their keenness to practise in the writing tasks, as a consolidation exercise, the phrasal verbs they had been exposed to in their readings (Table 2, statement 8, mean = 3.91, SD =0.84). Table 3 below shows the percentages regarding appropriate use of phrasal verbs in the students' four writing tasks.

Table 3. Percentages of correct use of phrasal verbs in writing tasks

	A memorable trip	An event I have attended	A new sport I would like to do	A person I admire
Student 1 (B2)	85%	90%	90%	90%
Student 2 (B2)	88%	100%	100%	95%
Student 3 (B2)	93%	100%	95%	90%

Student 4 (B2)	88&	90%	90%	95%
Student 5 (B2)	90%	90%	90%	90%
Student 6 (B2)	93%	100&	100%	90%
Student 7 (B2)	85%	90%	90%	95%
Student 8(B2)	90%	100%	100%	95%
Student 9 (C1)	90%	100%	93%	93%
Student 10(C1)	92%	100%	95%	95%
Student 11(C1)	92%	97%	97%	97%
Student 12(C1)	90%	100%	97%	94%
Student 13(C1)	90%	93%	95%	100%
Student 14(C1)	93%	100%	100%	100%
Student 15(C1)	90%	100%	95%	100%
Student 16(C1)	88%	100%	90%	95%
Student 17(C1)	92%	88%	95%	95%
Student 18(C1)	85%	100%	95%	90%
Student 19(C1)	90%	93%	95%	95%
Student 20(C1)	97%	100%	100%	100%
Student 21(C1)	90%	90%	93%	95%
Student 22(C1)	88%	90%	90%	100%
Student 23(C1)	90%	100%	100%	100%
Student 24(C1)	97%	95%	100%	90%
Student 25(C1)	90%	100%	95%	95%
Student 26(C2)	95%	95%	90%	90%
Student 27(C2)	90%	100%	100%	95%
Student 28(C2)	92%	100%	100%	100%
Student 29(C2)	93%	100%	100%	94%
Student 30(C2)	92%	100%	100%	100%
Student 31(C2)	90%	95%	95%	90%
Student 32(C2)	95%	100%	100%	90%
Student 33(C2)	95%	90%	100%	100%

As illustrated in the table above, the results show a high rate of performance irrespective of the students' level, which implies that the writing tasks significantly enhanced gains in the learning of phrasal verbs. This may suggest that learning in this particular case was intentional (Ellis, Basturkmen & Loewen, 2002; Sheen, 2002), since the students' attention was focused on target words for successful task completion, a finding emergent in recent research (Teng, 2017; Vurdien, 2020). As the writing tasks were graded and task completion took place in the students' own time, their attention was, therefore, focused on the appropriate choice of targeted vocabulary in their reading tasks,

vocabulary exercises and quizzes. This seems to be congruent with another study in which reading followed by specific vocabulary exercises yielded better results (Teng, 2015; Vurdien, 2020). With the aid of their online dictionary (Table 2, statement 10, mean = 3.60, SD = 0.83), some participants reported that the correct meaning of the phrasal verbs was guaranteed by their checking prior to incorporating them in their writings. Thus, concentrating on proper vocabulary usage can lead to the productive learning of these lexical items.

Motivating students to learn via quizzes on Socrative

Socrative, a Student Response System, engaged the students in the quizzes that measured their knowledge of the phrasal verbs acquired in the reading texts. The participants unanimously stated that they had found the quizzes enjoyable and entertaining (Table 2, statement 3, mean = 4.56, SD = 0.50), particularly due to their being able to compete against themselves and their peers via the 'Space Race' option on Socrative (Table 2, statement 5, mean = 3.78, SD = 1.16; statement 6, mean = 3.91, SD = 0.84). This might account for their active participation, which is consistent with a finding in another study (Chan *et al.*, 2019). Their performance improved because of their motivation to participate in the quizzes in class (Table 2, statement 4, mean = 4.34, SD 0.71), which concurs with other studies where the use of Socrative had an impact on students' motivation to complete their tasks (Faya Cerqueiro *et al.*, 2019; Mork, 2014), or when their preferred applications are utilised to acquire the target vocabulary (Kohnke, 2020). Apart from the motivational aspect, another benefit in the use of Socrative is that it allows for task performance outside the classroom. In fact, as an illustration of the seamless development of the project, some participants were invited to participate in their competitive quizzes, albeit not in face-to-face classes.

Enhancing their performance in quizzes prompted the students to familiarize themselves with the meanings of the phrasal verbs they were learning; this entailed memorizing information for successful task completion, as was

observed in a study (Dakka, 2015) in which quizzes were used as a learning activity. Conversely, several of the students indicated in their final questionnaire that their vocabulary retention was based on repeated reading tasks and not memorisation of all the lexical items, which they thought was not meaningful. In their view, guessing the meanings of the phrasal verbs in the different quizzes was more productive than memorising them. Others thought that the motivating factor of participating in the quizzes was to test their own vocabulary knowledge, thus encouraging them to strive hard to remember the meanings of the phrasal verbs (Table 2, statement 12, mean = 3.70, SD = 0.68). Repeated retrieval of vocabulary by means of quizzes produces better retention (Kornell, Bjork & Garcia, 2011), especially when immediate feedback is provided, discouraging superficial and rote learning (Roediger, Putnam & Smith, 2011). The present findings lend support to these arguments, since task completion on quizzes was beneficial for the students, whose prime concern was to assimilate the learning of phrasal verbs contextually. Furthermore, Socrative was perceived as a valuable application insofar as it guarantees immediate formative feedback, which helps both the teacher to monitor students' progress and the students to assess their own knowledge.

Despite the students' increased interest in the quizzes, some expressed their dissatisfaction in terms of the different types of questions used. The most popular was the Multiple Choice option, since it allowed them to guess the answers. However, not much appreciation was shown for the Short Answer option, because Socrative does not permit the user to change the answer if a spelling mistake has been made or the wrong verb tense has been written, as also mentioned in another study (Mork, 2014).

When considering the average class scores on the eight quizzes completed by students belonging to the three different levels (B2, C1 and C2), the results are surprising. As displayed in Figure 5 below, the graphs show a variation in the percentages obtained in the eight quizzes. What is noticeable is the fact that,

although in the first two quizzes the difference between the levels was not remarkable, the C1-level students outperformed their C2-level peers. The B2-level students, on the other hand, did not attain the same level of performance as that of their peers at C1 and C2 levels. What, however, is striking, is that in the final quiz, a better performance by the B2-level students was observed in comparison with the C2-level students. These results may suggest that the motivation of the C1-level students to compete in their quizzes was greater than that of the two other groups, which spurred them to do their best. In the case of those at B2 level, developing knowledge and retaining a large number of vocabulary items might have represented a huge challenge for them, as has been revealed in similar research (Seifoori & Ahmadi, 2017), due to their not having the same command of language as that of their peers. Nevertheless, a great improvement by these students was noted between the seventh and the final quiz, which may suggest that towards the end of the project they had gained confidence in their learning approach and, as a result, could remember the phrasal verbs they needed for their tasks. Meanwhile, a possible explanation for the performance of those at C2 level is that that they did not feel as stimulated as their C1 peers and, therefore, did not make a sufficient effort to focus on the target vocabulary in the quizzes. Four of them commented that the time limit applied to each quiz was a constraint for them in terms of answering the questions. In this regard, and as already reported (Faya Cerqueiro *et al.*, 2019; Dicheva *et al.*, 2015), time limits may not only have an effect on students' performance during the task, but also on their perceived satisfaction and learning goals. Consequently, it is pivotal to tailor activities to suit the needs of all students to enhance their learning experience.
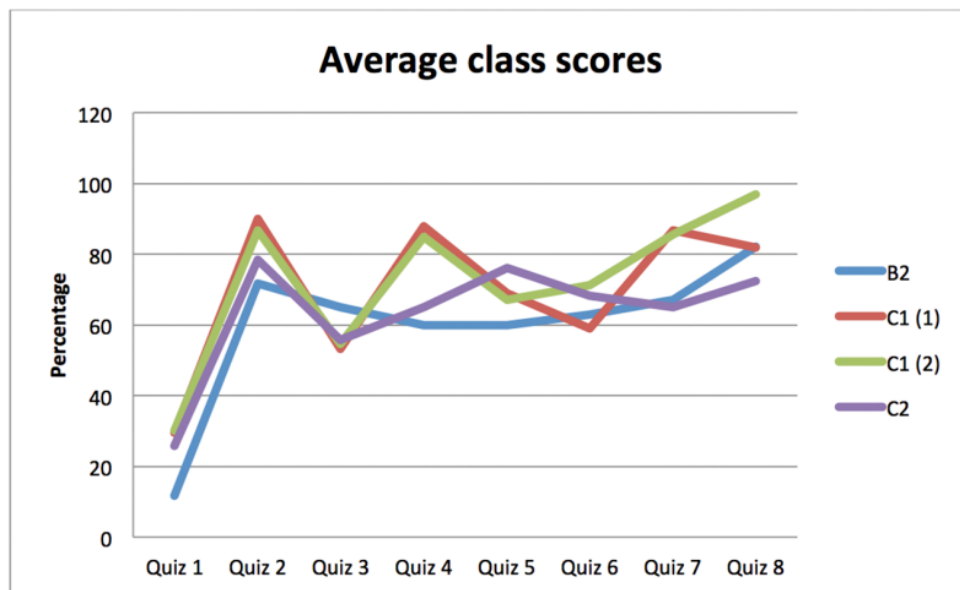
Average class scores

Figure 5. Students' performance in the quizzes

Qualitative findings

Students' perceptions of their learning experience

With regard to developing confidence in using phrasal verbs (Table 2, statement 9), one student commented during his interview, "I've improved my knowledge of phrasal verbs and can remember 60% of the ones I've learned in this project by doing quizzes. I also feel comfortable when I use them in my speaking and writing". Another said, "I can now use them correctly and guess their meanings when I do reading comprehension or listening exercises". A third student stated, "For me learning phrasal verbs is difficult, but after reading the texts and doing quizzes, I now find it easy to understand their meanings in different contexts". From these examples it can be surmised that the students were provided with the opportunity to negotiate meaning of the input-based tasks, and, as a result, performed better in acquiring new vocabulary, a finding that emerged in previous research (Teng, 2018). This could be explicated by the hypothesis of noticing (Schmidt, 1990), which refers to the fact that learners need to consciously notice forms and the meanings associated with them in order to transform the input into effective acquisition. Since attention is construed as necessary for learning to take place (Schmidt,

1995), students need to be able to notice and comprehend the specific lexical items in their reading texts in order to be successful in vocabulary retention.

However, several students with the lowest level of English (B2) still encountered difficulty in remembering the meaning of most of the phrasal verbs from the reading texts and quizzes. As one pointed out, "There were too many verbs to learn and I couldn't understand their meanings. I can perhaps remember 5% of the verbs in the texts, even after doing the quizzes"; whilst another stated, "I don't like phrasal verbs and I can't learn them. It was difficult to find their meanings when I read the texts and the quizzes were not always easy". In the input-based tasks, the students were required to comprehend input for the outcome of the task to be successful. It is likely, therefore, that some students were unable to negotiate meaning not only because of their insufficient competence in the target language, but also as they might not have noticed and understood the specific contextual meaning needed to achieve the task goal. In this regard, and in line with Teng's (2018) standpoint, tasks should be designed with a view to encouraging learners to notice, comprehend and negotiate meaning to fulfil task performance and the task goal.

Concerning the acquisition of the large number of phrasal verbs (Table 2, statement 7), in one of the interviews a student commented, "It's important to use phrasal verbs in order to get a good mark in the exam"; another, meanwhile, said, "You need to know phrasal verbs in order to speak English well". Therefore, in their belief, language competence is to a large extent determined by their knowledge of phrasal verbs and how many of them they use in written and spoken forms.

Motivating students to learn via quizzes on Socrative

In terms of their motivation to participate in the quizzes (Table 2, statement 4), some students in the present research commented in their interview that they looked forward to the quiz days. One student said, "It was the best activity of

the project", whilst another stated, "I liked competing against my peers. I tried to beat them". The feeling of being motivated was also reflected in their questionnaire. According to Brophy (2013), students tend to be motivated when they believe that they will be successful in a prescribed task. Hence, in the current study the students were committed to their bi-weekly quizzes, with the expectation of performing better than their peers.

Nonetheless, not all the participants expressed their satisfaction with the types of questions they had to answer in their quizzes. In one interview a student asked, "Why didn't we have multiple choice answers in all the quizzes?"; another student remarked, "Questions with multiple choice answers are easier to do than writing the answers". This suggests that the type of questions devised for quizzes has a significant effect on students' learning style.

Conclusion

As Reinders and Pegrum (2016) argue, both language acquisition and pedagogy should be construed when evaluating applications, and the Socrative app, used in this study, can be regarded as an effective tool for creating a learning environment and motivating students to learn phrasal verbs in a more dynamic and entertaining way. It can be easily downloaded on any technological device and its practicality enhances its use in the classroom. The present study examined the students' perceptions of their learning experience. This involved reading short texts on Google forms, with subsequent acquisition of phrasal verbs and consolidation by means of quizzes on Socrative, accessed on their smartphones. It has been noted that this tool can empower learning, since it can provide learners with the opportunity to assess their own knowledge due to the instantaneous formative feedback they receive, whilst teachers can monitor their progress. In addition, the competitive nature of the quizzes on 'Space Race' increased the students' interest in vocabulary retention. A further advantage of using quizzes is that students need to be updated on their learning material, which can foster good study habits (Bälter *et al.*, 2013). Since

students are acquainted with the use of technology in their daily routine, Socrative is a good application to stimulate them and keep them engaged in their learning activity (Dakka, 2015, El Shaban, 2017). In the same vein, Dahlstrom (2012) posits that today students commend the incorporation of technological tools in their learning to improve their performance as active learners. A real benefit of Socrative is that students can connect to the platform from outside the classroom at the same time as their peers in the face-to-face class by simply using the classroom code.

Despite the project lasting for only one semester, some progress in the acquisition of phrasal verbs was observed. Contextual learning was deemed more effective than memorizing long lists of these verbs with their definitions. The students attempted to notice, understand and negotiate meaning of the phrasal verbs in their reading texts, thus constructing knowledge. Focus on meaning is vital for vocabulary acquisition to take place (Vurdien, 2020). It is also paramount to design activities that can facilitate comprehension and negotiation of meaning, whilst at the same time bear the intended target users in mind (Kohnke, 2020) so that those who are less proficient can benefit from the learning outcomes. Socrative played a crucial role in the development of the students' confidence in using phrasal verbs in both their speech and writing, since the quizzes afforded them the opportunity to remember the vocabulary items. However, the choice of questions for the quizzes has an effect on students' performance and, therefore, these should be carefully selected to match their preferred learning style. Time limits applied to quizzes may affect students' desired learning goals and, if possible, should be avoided so that students can enjoy the satisfaction of completing the task.

Nevertheless, there are certain limitations in the present study that should be addressed in future research. Firstly, the small number of participants implies that the findings cannot be generalized. Secondly, as the participants were of three different levels, it might be more beneficial to study students of only one

level. Thirdly, as three different types of questions were formulated for the quizzes, it might be a good idea to examine the performance of students answering only one type of question. Fourthly, the students did their quizzes individually. Exploring how students collaborate in pairs or small groups to complete their quizzes could be an interesting option. Finally, the teacher's role was limited to planning the reading texts, vocabulary exercises and the questions for the quizzes. Perhaps it would be useful to study teacher feedback and its impact on students' learning goals.

Regardless of the limitations, this study has given some insights into the acquisition of phrasal verbs by means of reading short texts on Google forms and doing quizzes on Socrative. The students' perceptions of their learning experience have indicated that the effective implementation of technology is significant in terms of reaching learning targets. As pointed out by El Shaban (2017), Socrative is cost-effective and does not require administrators' funds to use it. Consequently, teachers are encouraged to incorporate this tool in their classroom to increase student engagement and motivation, whilst contributing to task enhancement.

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