

## Teaching Vocabulary with Graphic Novels

Ahmet Başıal<sup>1</sup>, Talat Aytan<sup>1</sup> & İbrahim Demir<sup>2</sup>

<sup>1</sup> School of Education, Yildiz Technical University, Turkey

<sup>2</sup> School of Arts and Sciences, Yildiz Technical University, Turkey

Correspondence: Ahmet Başıal, Department of Foreign Languages Education, School of Education, Yildiz Technical University, Istanbul, Turkey. E-mail: ahmetbasal@gmail.com

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### Abstract

Mastery of idiomatic expressions by foreign language learners is often equated with the fluency of native speakers of that language. However, learning these idiomatic expressions is one of the significant problems experienced by learners. The present quasi-experimental study conducted over four weeks in the ELT department of a Turkish university aims to investigate the effectiveness of teaching idioms via graphic novels compared to teaching them via traditional activities. Forty most figurative idioms selected randomly from the Michigan Academic English Spoken Corpus (MICASE) were used in a script and the script was converted to a graphic novel with the use of a computer software. The results revealed that participants in the experimental group who had learned idioms through the graphic novel performed significantly better on the post-test, indicating the efficiency of the graphic novel in vocabulary teaching. The study also offers recommendations for the use of graphic novels in the teaching of vocabulary.

**Keywords:** English language teaching, graphic novel, idioms, material development, vocabulary teaching

### 1. Introduction

The never-ending search for effective vocabulary teaching has been of ongoing interest to language teachers, since vocabulary learning is important in achieving competence in a language and a priority for language learners (Coady & Huckin, 1997). In this context, particularly good knowledge of idiomatic expressions can help language learners to reach proficiency level in the target language (Boers et al., 2006), and is even generally equated with sounding more natural (Schmitt, 2000; Wray, 1999). Indeed, lack of competence in idiomatic expressions can even result in communication breakdowns (Cooper, 1999). As Liu (2003) stresses, “because of their rather rigid structure, quite unpredictable meaning, and fairly extensive use, idioms are “a notoriously difficult” but simultaneously very useful aspect of English for...the learner” (p. 671). According to Irujo (1986), these expressions should be given special importance in language teaching starting from the beginner levels.

Despite the importance of idioms for competence in the target language, teaching them can be problematic (Zhang, 2009). It is therefore evident that studies are needed to investigate the techniques of teaching idiomatic expressions to language learners. In general, teaching vocabulary can be difficult for teachers due to their lack of adequate vocabulary teaching techniques (Berne & Blachowicz, 2008). In this context, it is important to note that reading is important in increasing vocabulary (Coady & Nation, 1988) “as it enables students to gain exposure to the target language and receive valuable linguistic input to build up language proficiency (Erten & Karakaş, 2007, p. 113). Reading is more beneficial and effective for vocabulary learning than word lists, intensive vocabulary instruction, doing vocabulary exercises in worksheets or using dictionaries (Krashen, 2004; Weir, 1991). Therefore, reading should be the main focus of vocabulary instruction in language classes.

However, the difficulty in engaging students in traditional book formats may tempt language teachers to exclude novels and/or long reading passages. Considering the importance of reading in teaching vocabulary, excluding novels and/or long passages from language courses would miss out on their potential benefits for language learners. Finding effective ways to integrate reading as an integral part of vocabulary instruction would be a more plausible solution for extending the vocabulary knowledge of language learners. The use of graphic novels as a tool in the present study can be considered an innovative approach for teaching idiomatic expressions since despite its growing popularity in educational circles there is little research, particularly empirical, on the use of graphic novels in the area of vocabulary teaching.

## 2. Literature Review

### 2.1 *The Use of Visuals in EFL*

It is increasingly common to see visuals in materials used in teaching English as a foreign language. One can see myriads of pictures accompanying texts in language teaching materials. In fact, visuals (pictures and/or illustrations, tables, charts, graphics etc.) have become an indispensable part of language teaching materials. It can be suggested that “even when the text is comprehensible without a picture, pictures can support the comprehension process in many ways” (Molitor, Ballstaedt, & Mandl, 1989, p. 16), and these pictures “serve as valuable teaching tools, bringing to the eye what otherwise can only be imagined” (Evans, Watson, & Willows, 1987, p. 86). Moreover, “visuals has always had a facilitative power in the process of language learning and become an indispensable part of it” (Öz & Efecioğlu, 2015, p. 75). When visuals are used, they help individuals to understand the underlying idea (Laitinen, 2014). Çakır (2015) also claims that “in order to create a meaningful learning atmosphere and to offer a *comprehensible input* [emphasis added], word and pictures need to be presented simultaneously” (p. 71). The mere use of illustrations in materials however may not result in the desired success in student achievement (Woodward, 1993); “how they are used in relation with the text” (Başal, et al., 2016, p. 526) is also important for success in foreign language teaching. In this context, the illustrations used in graphic novels may bring about success in language classrooms since they combine pictures and text meaningfully in a scenario.

In terms of idiom teaching, “...(good) pictorial elucidation is likely to facilitate retention of the meaning of idioms.... [and] the addition of pictorials can *make pedagogical materials more appealing*. [emphasis added]” (Boers et al., 2009, pp. 377-378). However, Skorge (2008) is concerned that visuals and/or illustrations are “viewed as fulfilling design-related requirements” (p. 267). Hill (2013) agrees that language learning materials are full of visuals mostly used for decorative purposes and Woodward (1993) states that when visuals are used, they may not add to the quality of the lesson or the material. Graphic novels, for their part, can be considered as illustrated books establishing a substantial link and a perfect match between the text and “meaningful” illustrations. In other words, in graphic novels, “the words and pictures work congruently to convey meaning” (Johannessen, 2011, p. 3). This combination in graphic novels can be particularly useful for the comprehension of information by the visual learners (Hassett & Schieble, 2007).

### 2.2 *Definition of Graphic novel*

In the literature, there has been no consensus on the definition of the graphic novel. The graphic novel can be defined as “sequential art, the arrangement of pictures or images and world to narrate a story or dramatize an idea” (Eisner, 1985, p. 5). In Carter’s words, it is “booklength sequential art narrative featuring an anthology-style collection of comic art” (2007a, p. 1). According to Seelow (2010), the graphic novel is an “extended, self-contained comic book” (p. 57). Gorman (2003) defines graphic novel as “an original book-length story, either fiction or nonfiction, published in comic book style” (p. xii). It can be seen from most of the definitions that scholars compare graphic novels with comic books and in these definitions, graphic novels are different from comic books in terms of their length and completeness. However, perhaps it is more useful to focus on the “great transformative potential [of graphic novels] for English classrooms and the students in them” (Carter, 2007b, p. 49) since it allows language learners to increase their comprehension of the text by combining text with pictures, two different modalities. Graphic novels can be seen as an art form combining many features:

Novels speak to us usually in a linear written narrative; picture books tell a story with text accompanied by illustrations; film does so with moving images and dialogue; and poetry can communicate on levels that no other storytelling can. Graphic novels combine all these elements in their own unique way. They are like prose in that they are a written printed format, but they are also like film in that they tell a story through dialogue, and through visual images that give the impression of movement. (Smith, 2005, p. 6)

With their success in combining different elements, graphic novels can be used as an effective tool to differentiate vocabulary instruction in language teaching by putting into action the power of reading. There is really not much point in mulling over the differences between the definitions of the comic book and the graphic novel whilst empirical studies investigating the potential of graphic novels in education are still at a premature stage and the issue remains unresolved.

### 2.3 *Benefits of Using the Graphic Novel*

According to Paivio’s Dual Coding Theory (1986) “people process information in two separate subsystems: verbal representations and mental images.... presenting information through both subsystems benefits learning” (cited in Laitinen, 2014, p. 5). In other words, “when images or figures match the verbal input, they are encoded

by both the verbal and non-verbal systems, thus promoting memory more strongly than in the case of verbal or visual input alone” (Murakami & Bryce, 2009, p. 50). To put it more precisely, Mayer (2009) argues that “People learn more deeply from words and graphics than from words alone” (p. 1), which is the essence of multimedia learning: “the presentation of material using both words and pictures, with the intention of promoting learning” (p. 3). It is therefore reasonable to state that when more than one modality is used in the materials developed for foreign language learning, this may bring considerable benefits to the learners.

With graphic novels the “balance between visual imagery and written words” (Martin, 2009, p. 30) can be achieved, and using both modalities can help students develop their literacies (Williams, 2008). On the other hand, “presenting learning materials merely through textual information may not lead to efficient learning demanded by the excessive amount of information” (Kuzu, Akbulut, & Şahin, 2007, p. 8). In line with this, learners of English commonly “face formidable barriers in a written text without any accompanying visual context” (Chun, 2009, p. 146). Visuals accompanying texts can provide clues that shed light on the meaning of an unfamiliar word or grammatical structure” (Krashen, 1989, p. 402). Carano and Clabough, (2016) suggest that “most graphic novels contain rich and accurate content material about a topic” (p. 14), which may have facilitative effect on the comprehension of the information presented in the text. In other words, *a marriage or harmony* between visuals and texts through the use of graphic novels may, therefore, help language learners to increase the comprehension of information presented in the text. Moreover, using graphic novels “contextualizes the featured language in ways that aid ELL students in learning how to use the language, or at least parts of it, correctly” (Hornberger & Skilton-Sylvester, 2000 as cited in Chun, 2009, p. 146).

Although the graphic novel has a short history in the field of education, its use is on the increase “to engage reluctant readers, reach out to visual learners, and illustrate social and cultural themes and topics” (Downey, 2009, p. 181). In language classrooms, graphic novels were first used “as a teaching tool for struggling or reluctant readers... [since] graphics combined with text made both decoding text and comprehending story or information easier and provided a bridge for dealing with nonillustrated text” (Brozo, Moorman, & Meyer, 2013, p. 39). Graphic novels can provide the motivation for these reluctant and struggling readers to read (Schwarz, 2002). According to Miller (2005), graphic novels help students to develop reading skills in a comfortable way and provide opportunities for developing higher order thinking skills. To put it more precisely, McTaggart (2008, p. 32) reminds educators that they need to teach graphic novels because graphic novels “enable the struggling reader, motivate the reluctant one, and challenge the high-level learner”. In terms of language teaching, it is considered that using graphic novels in language classrooms may bring about the same effects in terms of reluctant readers and motivation of the students to read since the graphics and/or illustrations make graphic novels appealing to readers.

In language teaching, various studies have been conducted on graphic novels: writing instruction (Frey & Fisher, 2008), preferences and comprehension strategies of students on the use of graphic novels in the classroom (Brenna, 2012), the use of graphic novels in foreign language teaching (Cimermanová, 2014; Templer, 2009), using comic books as read-alouds (Ranker, 2007), the role of graphic novels in English language teaching (Öz & Efecioglu, 2015), and the perceptions of teachers and students towards graphic novels (Pishol & Kaur, 2015). Of the above studies only that of Öz and Efecioglu has a quantitative side. As Krashen states (2005), “There is no current research that I know of on the use of graphic novels, but there is evidence suggesting that comic book reading can be a conduit to “heavier” reading” (p. 2). Moreover, the reasons for teachers not using graphic novels can be related to their unfamiliarity and their lack of knowledge of graphic novels’ potentialities (Carter, 2008). Despite the limitations of research, Brozo, Moorman and Meyer (2013) suggest that “there is reasonable evidence that graphic novels motivate reluctant readers, provide assistance for struggling readers, foster visual literacy [and] support English language learners” (p. 39). For more effective reading comprehension, as Scarcella and Oxford (1992) emphasize, important vocabulary should be presented by using illustrations. However, “the quality of illustrations as well as how they are used in relation with the text are among the several criteria which determine their effectiveness in the language classroom” (Başal, et al., 2016, pp. 526-527). In this context, graphic novels can improve this effectiveness by combining pictures with text in a scenario. However, if there exists a weak relationship between the text and the illustrations in the graphic novel, foreign language students may experience difficulty in reading the texts “...because they cannot rely on the images to repeat the key linguistic items” (McDonald, 2009, p. 24). On the other hand, although the relationship of text with illustrations may seem weak in graphic novels, it can be considered that graphic novels present text and the illustrations in a storyline, which may facilitate the comprehension of the students. In graphic novels, the match between text and illustrations is strengthened by presenting them in a story line, making it easier to follow the information flow. It is therefore only reasonable to consider that if vocabulary is presented with a combination of text and

illustrations on a story, learning and teaching vocabulary with the use of graphic novels may ease the vocabulary learning process of language learners,

Idiomatic knowledge is essential for successful communication in the target language. From this point of view, language learners should be given proper opportunities to learn idioms (Irujo, 1986; Moreno, 2011). In this context, the use of graphic novels may open windows of opportunities to present difficult-to-teach idioms to foreign language learners. No research however has been found that surveys the efficiency of graphic novels in teaching vocabulary, indicating a need to investigate their efficiency in terms of vocabulary teaching. This study therefore sets out to investigate the effectiveness of teaching figurative idioms via graphic novel compared to teaching them via traditional activities. Idiom teaching attracted much attention (Zarei & Rahman, 2012) in the field of language teaching. The underlying idea in using graphic novels to teach difficult-to-learn idioms is that with graphic novels the students can not only see the idioms in text but they can also see them in combination with the pictures, the text and the story. In other words, more than one modality is put into action to present the idiomatic expressions.

### 3. Method

The present four-week-long quasi-experimental study aims to investigate the effectiveness of teaching idioms via graphic novels compared to teaching them via traditional activities. The quantitative research design applies a post-test-only two-group randomized experimental design model. The research question that guides the study is: “Are activities with the use of graphic novel more effective than traditional activities in increasing the idiomatic knowledge of the participants?”. An achievement test including fifty questions related to the figurative idioms whose internal validity was established by using a panel of experts (n=3) from the field of English language teaching was used as the data collection tool.

#### 3.1 Participants

The participants of the study were 72 first-year students from an English Language Teaching Department of a state university in Turkey. Convenience sampling was employed while selecting the participants. Since Foreign Language Exam (YDS) scores were taken into consideration, their English level was accepted as upper intermediate level. The participants were enrolled in Lexical Competence, a compulsory course whose aim is to increase vocabulary knowledge, in the spring semester of the academic year 2015-2016. The participants were randomly divided into experimental and control groups. The control group consisted of 15 males and 23 females (n=38), and the experimental group consisted of 19 females and 15 males (n=34). Both had an average of 19.9 in terms of their age. Five participants, 2 from the control group and 3 from the experimental group, were excluded from the study due to attendance problems either at the lectures or at the achievement tests. The statistical analysis was therefore conducted on 67 participants. The control group was taught with traditional activities whereas the experimental group was taught with the use of the graphic novel.

#### 3.2 Materials

Two kinds of materials were used in the study to teach forty figurative idioms from the Michigan Corpus of Academic Spoken English (MICASE). These idioms are listed by Grant (2007), based on the study of Simpson and Mendis (2003). The idioms include: *bottom line, the big picture, carrot and stick, come into play, draw a line between, chicken and egg question, get a grasp of, get a handle on, get to the bottom of things, hand-waving, hand in hand, go off on a tangent, in a nutshell, ivory tower, litmus test, on the same page, shift gears, play devil's advocate, split hairs, down the line, thinking on my feet, on the right track, knee-jerk, flip sides of the same coin, right off the bat, on target, thumbs up, fall in love, out the door, face value, beat to death, put the heat on, a ballpark idea, full-fledged, go to show, come out of the closet, ring a bell, take a stab at it, take his/her word for it and rule of thumb*. For the control group, handouts that include the meanings of figurative idioms, example sentences and two sets of fill-in-the-blanks exercises were developed and used throughout the study. For the experimental group, these forty figurative idioms were used in a script and the script was converted to a graphic novel with the use of computer software ([www.storyboardthat.com](http://www.storyboardthat.com)), and used throughout the study. Example sentences were also given to the students.

#### 3.3 Procedure and Data Analysis

Before the study, an achievement test consisting of fifty fill-in-the-blanks questions related to the figurative idioms (See Appendix A) was used as the data collection tool to test the knowledge of participants in both groups. The internal validity of the questions in the achievement was established by using a panel of experts (n=3) from the field of English language teaching. A native speaker of English also checked whether the questions in the test were meaningful in terms of the use of figurative idioms. The test was used as both pre- and post-test. One point

was given to each of the correct answers in the test. Based on the pre-test results, no significant differences were found between the control and the experimental group. The following week, after introducing the study to both groups, participants in the control group used handouts for the subsequent four weeks under the guidance of the first researcher as a teacher, whereas the participants in the experimental group used the figurative-idioms-embedded graphic novel (See Appendix B and C). At the start of the study, graphic novels were distributed to the participants in the experimental group. Each week, the required part of the novel (including ten idioms) was read in the class and the participants tried to guess the meanings of these idioms. All the meanings of the idioms were checked by the teacher, and the teacher also gave extra example sentences where the figurative idioms in question were used. At the end of the study, the pre-test was also used as the post-test to check the effectiveness of the method used in each group.

#### 4. Results and Discussion

In the present research, the Kolmogorov-Smirnov test was used to determine whether the participants in the control and experimental group had a normal distribution. Since the groups were not normally distributed based on the analysis of the pre-tests with the Kolmogorov-Smirnov test, the Mann-Whitney U test was used to see whether there was any difference between the pre-test scores of the two groups. Since there was normal distribution in the scores of both groups in the post-test, independent samples t-test was used. The Wilcoxon test was used to determine whether there was significant difference between the pre- and post-test scores of the control and the experimental groups.

The number of participants in the control group was 36 students and 31 students in the experimental group. The scores of the control group in the pre-test were 12, 89±7, 66 and in the experimental group 11, 97±6, 62. In terms of the post-test scores, the control group obtained 21, 47±6, 84 and the experimental group obtained 27, 68±6, 36. Before comparison of the scores from the pre-test, scores of both groups were analyzed for normality with the Kolmogorov-Smirnov test. Based on this, normality assumption was not achieved (test statistics=0,153;  $p < 0,001$ ) in the pre-test. On the other hand, normality was achieved when post-test scores were analyzed (test statistics=0,089;  $p > 0,05$ ) (Table 1).

Table 1. Results of descriptive statistics

		N	Mean	Std. Deviation
Pre-test	Control	36	12,89	7,66
	Experimental	31	11,97	6,62
	Total	67	12,46	7,16
Post-test	Control	36	21,47	6,84
	Experimental	31	27,68	6,36
	Total	67	24,34	7,28

Since the condition of normality was not achieved in the pre-test scores of the groups, the Mann-Whitney U test was used to determine whether there were any significant differences between the post-test scores of the groups. Based on this test, no significant difference was found between the pre-test scores of both groups (Table 2).

Table 2. Comparison of pre-test scores of control and experimental groups

		N	Mean	Std. Deviation	z	p
Pre-test	Control	36	12,89	7,66	-0,34	0,734
	Experimental	31	11,97	6,62		
	Total	67	12,46	7,16		

Since the post-test scores of both groups displayed normal distribution, independent samples t-test was used to determine whether there was any significant difference between the post-test scores of both groups. Based on the results of this test, significant difference was found between the post-test scores of both groups ( $t_{65} = -3,822$ ;  $p < 0,05$ ). The post-test scores of the experimental group (27, 68±6, 36) were nearly 6 points higher than those of the

control group (21, 47±6, 84) (Table 3).

Table 3. Comparison of the post-test scores of control and experimental groups

		N	Mean	Std. Deviation	sd	t	p
Post-test	Control	36	21,47	6,84	65	-3,822	0,000
	Experimental	31	27,68	6,36			
	Total	67	24,34	7,28			

When the pre- and post-test scores of the groups were compared within the groups, the difference was found significant (Table 4). The pre- and post-test results for the control group were  $z=-4,666$ ;  $p<0, 05$  and for the experimental  $z=-4,862$ ;  $p<0, 05$ . According to this result, the difference between the pre-test and post-test scores of the control group was nearly 9 points, and the difference between the pre-test and post-test scores of the experimental group was nearly 16 points. This means that both groups significantly improved their scores at the post-test. However, when the gains in the post-test are considered, the experimental group significantly achieved better scores than the control group, indicating the effectiveness of the digital novel over traditional activities.

Table 4. Comparison of pre- and post-test scores of the control and experimental group

		N	Mean	Std. Deviation	Z	p
Control	Pre-test	36	12,89	7,66	-4,666	0,000
	Post-test	36	21,47	6,84		
Experimental	Pre-test	31	11,97	6,62	-4,862	0,000
	Post-test	31	27,68	6,36		

Results of the study indicate that the experimental group, which learned figurative idioms with the use of a graphic novel performed significantly better than the control group, which learned the same figurative idioms with traditional activities. This result shows that the graphic novel can become an effective tool in teaching idioms to the students. The underlying reason that made possible significantly better scores with the experimental group in the post-test may be that the graphic novel presents the idioms by combining the two modalities of the verbal and visual. When the information is presented with two modalities at the same time, it may support learning more than when it is presented by either verbal or visual input alone (Murakami & Bryce 2009), since presenting information only with text may make it difficult for students to digest significant amounts of information (Kuzu, Kabuli, & Shin, 2007). When the material is presented with the combination of words and pictures, as Mayer (2009) states “it takes advantage of the full capacity of humans for processing information. When we present material only in the verbal mode, we are ignoring the potential contribution of our capacity to process material in the visual mode as well” (p. 6). As Underwood (1989) states, “...[a] commonplace principle of human learning: [is] visual memory. We remember images better than words, hence we remember words better if they are strongly associated with images” (p. 19).

In the current study, pictures and text may have worked together in increasing the possibility of remembering idioms presented in the graphic novel. In addition to this combination, there is another factor that may contribute to the human capacity to understand when the graphic novel is used - presenting them in a scenario. In a study conducted by Purnell and Solman (1991), students' comprehension of the text increases when text and visuals are used in combination compared to those students who received them separately. Additionally, using visuals can help students to remember longer (Burmark, 2002).

To the present researchers' knowledge, there have been no experimental studies on the effect of using graphic novels on teaching vocabulary. However, various studies have been carried out to investigate the effects of pictures, images and/or illustrations on vocabulary instruction. In their critical analysis of L2 vocabulary learning techniques (e.g. flash cards, word grouping, word lists, dictionary use, semantic mapping etc.) Oxford and Crookal (1990) claim that using a combination of pictures and texts increases the learners' mental power to comprehend the information presented and is helpful in learning vocabulary. In their empirical study on various

types of glosses, Kost, Foss, and Lenzini (1999) argue that when vocabulary is combined with pictures, this combination provides “stronger bonds” for the processing of words in the brain (p. 94).

According to various scholars, graphic novels can provide the motivation for reluctant and struggling readers to read (Schwarz, 2002), aid for general readers (Öz & Efeoğlu, 2015), support for comprehending the presented information in the text (Christensen, 2006), opportunities for students having different learning styles (Seelow, 2010)), the development of visual literacy (Brozo, Moorman & Meyer, 2013) and the stimulation of critical thinking (Jacobs, 2007). Much of the research up to now however is mostly descriptive in nature, indicating a need to explore the effects of graphic novels with quantitative analysis on the aforementioned benefits. The current study aims to investigate the effects of graphic novel on vocabulary teaching with a quasi-experimental research design in an English as a foreign language context. The empirical findings of this study provide a new understanding of graphic novels in the context of vocabulary teaching. Based on the findings, using graphic novels can be a more effective tool in teaching vocabulary when compared with the traditional activities.

## 5. Conclusion

The use of graphic novels has been gaining popularity in educational circles for their ability to help visual learners (Brozo, Moorman, & Meyer, 2013; Murakami & Bryce, 2009), to motivate reluctant and struggling readers (Schwarz, 2002), to develop higher order thinking skills (Miller (2005), to address students having different learning styles (Seelow, 2010) and to provide rich context for increasing comprehension of the reading texts (Brenna, 2013). In addition to the above-listed benefits, graphic novels can be used creatively for other purposes, including vocabulary instruction.

The current study explores the effectiveness of graphic novels in teaching vocabulary. The results suggest that graphic novels, a combination of visuals and text in a storyline, is more effective in teaching idiomatic expressions than in teaching them with traditional activities. The two modalities present in the use of the graphic novel can help the learners to make strong connections between the visuals and the figurative idioms in the text. Where pedagogical implications are concerned, the current research indicates the importance of presenting new vocabulary to foreign language learners with various modalities. In order to improve the effectiveness of vocabulary learning, vocabulary should be presented to embrace more than one modality. In the case of the graphic novel in the current research, figurative idioms are presented with text accompanied by illustrations.

However, the significant gains in terms of figurative idioms by the graphic novel group cannot be fully explained merely by the combination of figurative idioms with pictures. The effect of presenting the figurative idioms with the story (scenario) may have been only a contributing factor in the significant vocabulary gains made. This factor, however, is not taken into consideration in the current research, and the graphic novel is taken as a whole. Based on the research results, it is concluded that the graphic novel can be used while teaching vocabulary to English language learners since it puts into action two modalities in addition to the storyline. Besides, for vocabulary which is difficult to learn such as idiomatic expressions, presentation with materials addressing more than one modality may be a more effective solution when compared to presenting with only one modality. In the light of the results indicating the effectiveness of graphic novel in teaching idiomatic expressions, the awareness of trainee English language teachers about the use of graphic novels should be increased with the addition of this subject to the English language curriculum of teaching departments. In addition to this, the ability of these trainee teachers to write graphic novels may be improved by focusing on creative writing. It is considered that when language teachers are equipped with the necessary knowledge about graphic novels, they can innovatively integrate them into their classrooms and curricula to support language learning processes in many different areas including vocabulary learning.

The findings in this study are subject to at least three limitations. Firstly, the lead researcher was also the teacher conducting the activities in both the control and the experimental group, which may have affected the implementation of the activities and the interpretation of the results. Secondly, the study was unable to control the time spent by the students on graphic novel or handouts outside the classroom, which may have affected post-test scores of both groups. Thirdly, the scenario was written by the lead researcher and converted to a graphic novel by a software. Thus, the quality of the scenario and graphics may have also affected the results. The findings of the current study should therefore be interpreted taking into consideration these limitations.

Further investigation and experimentation into the effects of graphic novels in vocabulary learning is strongly recommended to confirm the results of this research. Moreover, the participants in this study were upper intermediate level students from an English language teaching department; future studies should be conducted with different proficiency levels to see the fuller effects of using graphic novels in teaching vocabulary in foreign language classes. In the current study, the focus was on teaching 40 figurative idioms; more studies can be

conducted to see whether the effectiveness of graphic novel is valid for other vocabulary types. Besides, although the use of graphic novels in educational settings is gaining in popularity, the number of empirical studies on the use of graphic novels is few. More experimental research is needed to investigate the effects of graphic novels in language teaching.

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## Appendix A

### Achievement Test Questions

- (1) I'm sorry, I'd love to, but I can't get away this weekend; there are a lot of reasons, but the \_\_\_\_\_ is, I have to watch the kids. (bottom line)
- (2) These details are interesting, but I'm interested in a broader view. What's \_\_\_\_\_? (the big picture)
- (3) Make sure John understands that he could be disciplined for not turning his report in on time, but also be sure he knows that if the report is done well and delivered promptly, he'll be promoted. Use a \_\_\_\_\_ approach to the conversation. (carrot and stick)
- (4) When asking why the national team lost the big game last night, we have to consider the roster, field conditions, and coaching, among other things; many factors \_\_\_\_\_. (come into play)
- (5) It's important to \_\_\_\_\_ those elements of the process we can control, and those which are out of our hands. (draw a line between)
- (6) Whether human beings are contributing to climate change is not a \_\_\_\_\_, as the cause and effect is quite clear. (chicken and egg question)
- (7) Reading the Jones book helped me \_\_\_\_\_ German history, something I'd never really understand before. (get a grasp of)
- (8) Hopefully, increased police presence will allow us to \_\_\_\_\_ the crowd control problems in this district, and we'll avoid further conflict. (get a handle on)
- (9) This initial report is interesting, but it will take a more thorough investigation to really \_\_\_\_\_ and determine the root cause. (get to the bottom of things)
- (10) I'm sorry, your argument is vague, and not all serious. It's really just a bunch of \_\_\_\_\_ (hand-waving)
- (11) Your thesis treats climate change and water conservation as separate issues, but these things go \_\_\_\_\_. (hand in hand)
- (12) Let's return to Sally's main point; our current topic is somewhat related, but we don't want to \_\_\_\_\_. (go off on a tangent)
- (13) Can you give me the explanation \_\_\_\_\_? I'm in a hurry, and don't have time for details. (in a nutshell)
- (14) I have to go out in the field and do some research, as I've been spending too much time in my \_\_\_\_\_, studying the question in the abstract. (ivory tower)
- (15) The candidates' positions on immigration have become a \_\_\_\_\_ for their credibility with the conservative wing of the party. (litmus test)
- (16) So, what conclusions have we all come to? I think we're in agreement, but want to make sure we're \_\_\_\_\_. (on the same page)
- (17) Now that we've thoroughly covered domestic issues, can we \_\_\_\_\_ and talk about foreign policy? (shift gears)
- (18) I don't necessarily think these points that I'm about to raise are valid, but I'm going to \_\_\_\_\_, so we'll be prepared if the opposition raises them. (play devil's advocate)
- (19) Is this too minor a distinction to focus on? I don't want to \_\_\_\_\_. (split hairs)
- (20) Let's put that issue aside for the time being; we'll address it \_\_\_\_\_, after we have gathered more data. (down the line)
- (21) I didn't have time to put together much in the way of notes, so I'll be \_\_\_\_\_ during this presentation. (thinking on my feet)
- (22) After reviewing my work, do you think I'm \_\_\_\_\_, or should I try a different approach? (on the right track)
- (23) Frankly, I think firing Tim for his role in that affair was \_\_\_\_\_, and should've been considered more

carefully. (knee-jerk)

- (24) Poor study habits and a busy social life may not seem related at first, but often they are \_\_\_\_\_. (flip sides of the same coin)
- (25) We thought the pop singer would save his big hit for later on in the show, but instead he went to it \_\_\_\_\_, making it his first number. (right off the bat)
- (26) Jessica's remarks were very good, \_\_\_\_\_ and to the point. (on target)
- (27) Well, do I get a \_\_\_\_\_ for my efforts, or do you think I should try again? (thumbs up)
- (28) It may seem difficult now, and not like much fun, but keep studying. You'll \_\_\_\_\_ with the subject eventually. (fall in love)
- (29) Alright, team, we need to focus, get to work, and get this project \_\_\_\_\_ as soon as possible. (out the door)
- (30) Steve exaggerates sometimes, when he's trying to impress people; don't take what he says about his investments at \_\_\_\_\_. (face value)
- (31) This topic is about to be \_\_\_\_\_, as we have discussed it for thirty minutes with no resolution. (beat to death)
- (32) Our professor wants us to deliver three substantive papers this semester on three separate topics; he has really \_\_\_\_\_. (put the heat on)
- (33) Can you give me \_\_\_\_\_, for now, until the new data comes in and we can be more precise? (a ballpark idea)
- (34) This morning, I had only a little headache, but now it's become a \_\_\_\_\_ migraine. (full-fledged)
- (35) I never thought I would enjoy that drama, but after a few episodes, I became interested in the story and now it's my favorite. This \_\_\_\_\_, always keep an open mind. (goes to show)
- (36) One of these days, I'll get over my embarrassment at liking a kid's movie, and \_\_\_\_\_ as a fan of Frozen. (come out of the closet)
- (37) Does this tune \_\_\_\_\_ for you? I think I may know it, but I haven't heard it in years. (ring a bell)
- (38) I'm not sure I'll be able to finish this marathon, but I've been training for months, so I may as well \_\_\_\_\_ (take a stab at it)
- (39) Don't \_\_\_\_\_, do the calculations yourself. (take my word for it)
- (40) A good \_\_\_\_\_ when packing most suitcases: Fold everything as flat as possible. (rule of thumb)

Appendix B

Sample pages from the scenario

<p>5.</p> <p>Omer visualizes Safiyeh's face, smiling fetchingly.</p>	<p>question! But she didn't treat it as stupid . . . she smiled a little, but it was . . . friendly . . .</p> <p>5.</p> <p>S: No! A rule of thumb is, basically, a <b>guideline</b> that's not exact, but is good enough that you can use it in most situations. To say "thumbs up" to something is to agree, but with a lot of enthusiasm. So you could say, a good rule of thumb for saying thumbs up is to only say it if something really pleases you.</p>
<p><b>Act I, Scene II</b> Interior Rockefeller building, just outside one of the seminar rooms. Jill and Rob, who are in Omer's study group, are chatting together before going in.</p>	
<p>1.</p> <p>Omer approaches his fellow students.</p>	<p>1.</p> <p>OMER'S THOUGHTS: All that hurrying, and it turns out I'm early. Better say hi . . .</p> <p>OMER: Hello, Jill. Hi, Rob.</p>
<p>2.</p> <p>Focus on Jill, as seen from over Omer's shoulder.</p>	<p>2.</p> <p>JILL: Hi, Omer! I was just saying, I'm not a quant, so this course is just an elective for me and I had a hard time <b>getting a grasp on it!</b></p> <p>OT: Ah! She means she finds the material difficult to understand. I think I'll show off a little bit . . .</p> <p>O: You were having trouble <b>shifting gears?</b></p> <p>OT: Just learned this one, hope I used it correctly . . .</p> <p>J: Yes, exactly!</p>

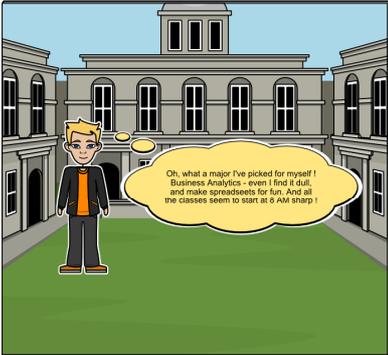
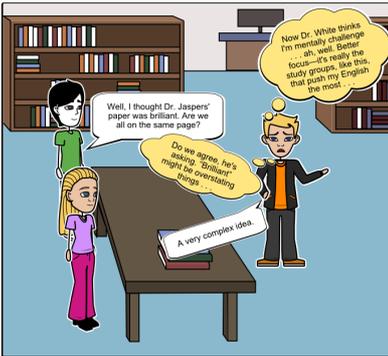
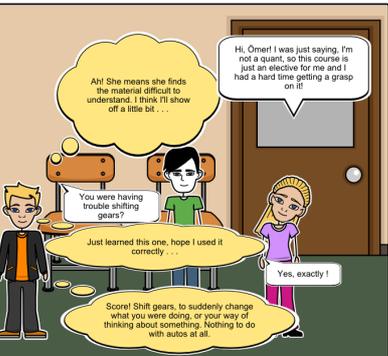
<p>3.</p> <p>Focus shifts to Rob as he interjects.</p>	<p>OT: Score! Shift gears, to suddenly change what you were doing, or your way of thinking about something. Nothing to do with autos at all.</p> <p>J: Now, though, I've totally <b>fallen in love</b> with this class!</p> <p>OT: Americans fall in love with everything, it seems . . . even when they only mean they've just started to enjoy something they previously hadn't . . .</p>
<p>4.</p> <p>Omer's happy face.</p>	<p>3.</p> <p>ROB: That just <b>goes to show you</b>, always keep an open mind.</p> <p>OT: What a weird expression! Why not just say, "That proves . . .", or something similar.</p> <p>4.</p> <p>OT: Ah, well, who cares? I understood everything! At this rate, I'll be tutoring Safiyeh!</p>
<p><b>Act I, Scene III</b> Seminar room, twelve students and professor arrayed around the table that takes up ¼ of the small space.</p>	
<p>1.</p> <p>Dr. White is seated in very loose posture at the head of the table, looking simultaneously at ease and in control.</p>	<p>1.</p> <p>CAPTION: The seminar begins . . .</p> <p>OMER'S THOUGHTS: Can't say I've "fallen in love" with this class, for my part. It seems very basic. No rigor! And today we're talking about negotiations, of all things. If I wanted to learn haggling, I'd go to the market . . .</p> <p>DR. WHITE: . . . And any productive strategy is going to include both <b>carrots and sticks</b> . . .</p>

<p>4.</p> <p>Omer pictures an enormous tower that looks like elephant's tusk jutting out of the ground, as seen from below; he is just visible leaning out of a small room at the very tip, which looks precarious indeed, given the tower's curvature.</p>	<p>coming out of hiding.</p> <p>4.</p> <p>OT: "Ivory tower", now that's a little harder to see. How do the scholars get all their books up there, for starters?</p>
<p>5.</p> <p>Omer seated at the desk in his room, not paying much attention to the textbook open in front of him.</p>	<p>5.</p> <p>OT: Safiyeh—she looks like the girls I grew up with, I recognize them in her at times, but, culturally, she's got America in her soul. Is this a date we're going on tonight? I can't tell. Some people say love is the universal language, but I doubt it's really so plain. Aren't there idioms of the heart, double-meanings that don't always come across? What if I use one of these, or she does, and the other person doesn't even realize it?</p>
<p>6.</p> <p>Omer in knight's armor, lunging with broadsword at a valentine heart.</p>	<p>6.</p> <p>OT: Ah, well. Might as well give it a chance—<b>take a stab at it</b>, so to speak.</p>
<p><b>Act II, Scene II</b> The university's baseball stadium, early evening.</p>	
<p>1.</p> <p>Omer is waiting outside the stadium, by the main gate.</p>	<p>1.</p> <p>OMER'S THOUGHTS: Well, it's a nice night to be out, even if I'm a little dubious about this so-called game. Give me basketball any day . . .</p>
<p>2.</p> <p>Safiyeh approaches, waving hello.</p>	<p>2.</p> <p>SAFIYEH: Look at us, both early. A couple of <b>full-fledged</b> nerds!</p> <p>OMER: I can't help it! Even when I think</p>

<p>3.</p> <p>Inside the stadium, in the student section. Omer and Safiyeh are seated on one of the bleachers, watching the game.</p>	<p>I'm going to be late, I get there early. Um . . . full-fledged?</p> <p>S: You could say, "total", or "fully-formed" instead.</p> <p>O: I see. Well, let's go in.</p> <p>OT: Hope this doesn't turn into just another tutoring session . . .</p>
<p>4.</p> <p>A batsman is jogging down the line to first. Omer and Safiyeh can be seen in the background, sitting in their section of the stadium, along with a smattering of other students.</p>	<p>3.</p> <p>S: Baseball has a lot of rules, so I'm just going to give you the <b>big picture</b> at first. . .</p> <p>OT: Big picture, like a broad overview.</p> <p>S: <b>Bottom line</b>, the team that scores the most runs wins.</p> <p>OT: Bottom line, like the totals line in accounting. So, the most basic or most important thing.</p> <p>O: How do you score a run?</p> <p>S: A batsman has to go all the way around the bases—those white squares out there—and he has to touch all of them in sequence . . .</p> <p>O: I see.</p> <p>OT: Kind of. This could be a long night . . .</p> <p>CAPTION: A few innings later . . .</p>
<p>4.</p> <p>A batsman is jogging down the line to first. Omer and Safiyeh can be seen in the background, sitting in their section of the stadium, along with a smattering of other students.</p>	<p>4.</p> <p>O: Why is he taking a base? He didn't even touch the ball.</p> <p>S: The pitcher wasn't throwing the ball <b>on target</b>. If he throws the ball in the wrong place four times, the batter gets to advance.</p>

### Appendix C

#### Sample sections from the graphic novel

<p>1. Exterior Longhorn State University campus, early morning.</p>	
 <p>Omer, you're going to be late! You better pick up pace.</p>	 <p>Oh, what a major I've picked for myself! Business Analytics - even I find it dull, and make spreadsheets for fun. And all the classes seem to start at 8 AM sharp.</p>
<p>Omer is hurrying to class, but still on the outskirts of campus, passing through the residential area on the school's western edge.</p>	<p>Omer has passed a little further into campus proper, and is now crossing main courtyard toward the Rockefeller College of Business building, his destination.</p>
	<p>A little later that morning . . .</p>
 <p>Omer, can you give me a ballpark idea of what that might look like?</p> <p>Ballpark? . . .</p> <p>What is the name of all that's kind of black, and what have about 8? Satyr? Where are you?!</p> <p>Any clues? No? How about you?!</p>	 <p>Well, I thought Dr. Jaspers' paper was brilliant. Are we all on the same page?</p> <p>Do we agree, he's asking "brilliant" might be overrating things.</p> <p>A very complex idea.</p> <p>Now Dr. White thinks I'm mentally challenged - oh, well. Better focus - it's really the study groups. Use this, that push my English the most.</p>
<p>Omer's face, lost in thought, before being jolted back into the moment by the professor's question. In the background, as he struggles to answer, Jill raises her hand.</p>	
 <p>Ah! She means she finds the material difficult to understand. I think I'll show off a little bit . . .</p> <p>Hi, Omer! I was just saying, I'm not a quant, so this course is just an elective for me and I had a hard time getting a grasp on it!</p> <p>You were having trouble shifting gears?</p> <p>Just learned this one, hope I used it correctly . . .</p> <p>Yes, exactly!</p> <p>Score! Shift gears, to suddenly change what you were doing, or your way of thinking about something - nothing to do with autos at all.</p>	 <p>Now, though, I've totally fallen in love with this class!</p> <p>Americans fall in love with everything, it seems - even when they only mean they've just started to enjoy something they previously hadn't . . .</p>

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