GLOSSING AND L2 VOCABULARY LEARNING THROUGH DYNAMIC INSTRUCTION IN THE CONTEXT OF PRIMARY EDUCATION

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Abstract: The present study deals with two types of L2 glosses, namely dynamic and traditional text-based glosses. The former were presented to students as a set of prompts designed to help learners identify the correct keyword, whereas the latter were introduced as traditional annotations containing L1 equivalents. A third control group was included in the study. Particularly, the focus is to compare the effects of these two types of glosses in Primary Education students of EFL. During the treatment session the dynamic glossing and the traditional glossing groups were presented three short texts with some unknown words. After the treatment, the three groups were tested in terms of both receptive and productive knowledge of the unknown words. Testing was carried out immediately and three weeks after the treatment. The results of immediate and delayed post tests revealed the superiority of the dynamic condition over traditional glossing and the control group as regards the two types of L2 vocabulary knowledge.

Keywords: L2 vocabulary acquisition, dynamic glosses, primary education.

1. INTRODUCTION

Since the end of the last century, very few question the importance of vocabulary in the process of learning a foreign language. While it is true that the vocabulary has always been present throughout the history of language teaching, its role has changed depending on the focus and historical moment. It was in the mid-1980s when the vocabulary ceased to be considered the Cinderella of language teaching and became one of its cornerstones – some would say the cornerstone (Meara, 1980). In fact, there are many studies which remark that a high level of lexicon in second language is closely related to a better development of communicative skills, both oral and written (Golkar & Yamini, 2007; Staehr, 2008; Milton, Wanders & Hopkins, 2010; Gorman, 2012).

Despite the considerable amount of research on L2 vocabulary, the debate about how this vocabulary is learned, together with what mental procedures are involved in its acquisition is still open today. In fact, the results of several studies on vocabulary learning in Spain show that students do not seem to reach an elementary level of vocabulary after compulsory education, even though they receive around 8 years of foreign language instruction. Jiménez Catalán and Moreno Espinosa (2005) and Jiménez Catalán and Terrazas (2008) conducted studies where the EFL level of primary and secondary students in Spain was measured. These investigations showed that, despite a considerable amount of hours exposed to the foreign language, students had a lower vocabulary level than expected, as for both receptive and productive. Similarly, in a more recent study, Mora (2014) compares the amount of receptive vocabulary in 6th-grade students in a bilingual and non-bilingual context. While the bilingual group reported more vocabulary gains than the non-bilingual group, the participants' level, regardless of the group they belonged to, was low considering their time of exposure to the second language.

Learning a second language involves learning a significant number of meanings. This is actually one of the issues concerning teachers and students, that is to say, to find ways of instruction and activities which lead to achieve this goal. Glosses are one of the most recurrent ways of working with second language vocabulary. They can be used under different types of instruction and may adopt different shapes such as L2 definitions, L1 equivalents, informal annotations, or even pictures and sounds. The present study deals with dynamic glosses, a specific sort of annotation which involves prompting.

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LITERATURE REVIEW

L2 vocabulary learning through glossing

The way L2 vocabulary is learned has been widely discussed. Research has surveyed this issue from different perspectives. Scholars have been interested in exploring the context in which new words are learned. Literature on L2 vocabulary teaching distinguishes between two types of learning, namely incidental and intentional. The distinction between these two types of instruction seems to be useful when it comes to the debate about the most effective way to introduce new vocabulary in the classroom. In intentional L2 vocabulary learning, the learner is explicitly willing to acquiring the lexical items s/he deals with. It is usually given in specific activities aimed at informing students about the lexical elements and their formal, semantic and syntactic characteristics.

Intentional vocabulary learning is very effective in relative terms, that is to say, it leads to high degrees of word acquisition. Nonetheless, some experts warn that it requires a considerable amount of time, and it is clearly impossible to explicitly teach and learn all the words the students need to be communicatively competent in the foreign language. According to Nation (2006) a speaker needs around 2500 words to be able to communicate in a language. In Spain, several studies (López-Mezquita, 2005; Canga, 2013) indicate that on average a student who finishes compulsory higher education does not reach 2000 words or word families. This number is notably small if we consider that a Spanish student is exposed to EFL for more than 800 hours during school years. Additionally, there exists the fact that some of the vocabulary a student knows has not been intentionally learned, and has been acquired incidentally.

Incidental vocabulary learning is considered a by-product of another activity involving comprehension (Gass, 1999). In this sense, we could point out that the learning process is unintentional. This incidental learning has raised interest among scholars in the field of vocabulary acquisition. Research has shown that L2 learners may incidentally gain knowledge of meaning through reading (Hulstijn, 2003; Pulido, 2007; Webb, 2008; Eckerth & Tavakoli, 2012). Nevertheless, Nation and Webb (2011) point out that acquisition primarily depends on the cognitive process in which the learner is involved when exposed to the new term. Studies on cognitive psychology show that deep elaboration of lexical information leads to better retention. Elaborated processing of lexical information involves both paying attention - whether intentionally or unintentionally - and also noticing. Yet, attention should not be understood as a synonym of intentional learning. As Hulstijn and Laufer state,

> "careful attention can be paid to a certain word during intentional learning (e.g. preparation for a vocabulary test) just as well as during incidental learning (e.g. when a word occurs in a text and successful completion of the reading task requires such attention)" (Hulstijn and Laufer 2001: 542).

We can find a plethora of studies which have examined the effectiveness of glosses on vocabulary learning (Hulstijn, 1992; Jacobs, Dufon & Fong, 1994; Hulstijn, Hollander & Greidanus, 1996; Paribakht & Wesche, 1997; Yanguas, 2009; Lee & Lee, 2015). Nation (2009) puts value in the role of glosses. He claims that glossing provides accurate meanings for words, while minimal interruption to reading occurs, particularly compared to dictionary use. What is more, it draws attention to words that should aid the acquisition process. Traditionally, research has compared gloss conditions with non-gloss conditions, revealing the advantages of the former over the latter for vocabulary learning. However, nowadays the interest has shifted from this question of glossing vs non-glossing to which gloss type is most effective. Accordingly, different scholars have tested a variety of formats. For instance, Miyasako (2002), Chen (2002) and Yoshii (2006) compared the effectiveness of L1 and L2 glosses. The first one could observe that those learners who were exposed to L2 glosses outperformed learners that used L1 glosses. By contrast, Chen (2002) and Yoshii (2006) could not find significant differences between the two types, although they revealed the advantage of gloss groups over no-gloss groups.

Anderson-Inman and Horney (2007) and Yanguas (2009) explored how glosses supported by visuals were beneficial for vocabulary learning through reading. This is also the case of Sato and Suzuki (2010), who compared visual 2D glosses with 3D glosses in the learning of spatial prepositions such as *above*, *across*, *below*, *in*, *on*, and *over*. Their results point to the benefits of visuals for L2 vocabulary learning, yet no differences between the two types of visual glosses were observed. Sato and Suzuki (2010) used multimedia based resources for their glosses, similar to Chun (2011), who highlighted the potential of e-glosses in the learning of L2 vocabulary by tracking the user's behavior when reading. More recent studies such as Lee and Lee (2015) and Lee, Warschauer and Lee (2017) explored sentences extracted from corpora as glossing. They considered concordance lines as effective scaffolding for L2 vocabulary learning. In fact, their results confirmed that concordance lines as glosses were a good instrument for the improvement of unfamiliar words in the L2.

Glosses and dynamic techniques in L2 vocabulary learning

Glosses have been traditionally considered a tool which helps students in their comprehension of a text by providing an explanation, definition or L1 equivalent of certain target words. This type of support is provided all

at once, that is, the learner has access to that information in a direct way (Lee, Warschauer & Lee, 2017). This traditional format of glosses differs from what is known as dynamic glossing. Rassaei (2020: 285) defines dynamic glossing as "a technique for enhancing L2 vocabulary learning during reading". Dynamic glosses help students in their learning process as they provide them with a series of hints and prompts, which are usually presented by a teacher or a mediator. It is by means of this mediation that the learner is expected to get to the correct definition of the target word. That is to say, instead of providing the learner with the correct definition at once – as it is normally given in traditional glossing – with dynamic glosses assistance is graduated.

In the Sociocultural theory promoted by Vygostky (1978), L2 is conceived as a mediated process, where it is essential to create opportunities for the learner's linguistic development through interaction and constructed artifacts (Lantolf & Thorne, 2006). Accordingly, as Rea-Dickins (2004) suggests, the teacher's response should be guided by particular decision-making process or framework, so that these opportunities for development may be provided. This is in line with the idea that collaborative student and teacher interaction leads students to construct new understandings of the object of study (van Compernolle & Williams, 2012). This can be achieved through mediated learning adopting the form of dialogue between the teacher and the students with the aim of promoting understanding of a particular text or concept.

Davin (2013) states that the most important tool for mediation is language, which is the instrument that is used by human beings to internalize new knowledge, resulting in an individual's ability to complete tasks that were once only possible through mediation from others. This is part of the Zone of Proximal Development (ZPD) promoted by Vygostky, who leads us to believe that what learners can do independently is just a part of what they can do with the help of mediated interaction. Thus, what the learner is able to do without this help is expected to increase as the learning process advances.

Recent studies carried out by Lantolf and Poehner (2011), Herazo, Davin and Sagre (2019), and Rassaei (2020) examine the role of mediated interaction through dynamic techniques. This type of techniques has been used as a type of feedback which is to be distinguished from the traditional corrective feedback. It is labeled as 'scaffolded feedback' by Herazo et al. (2019), where mediation occurs in the form of hints on the part of the teacher, while interacting with the student. One of these dynamic techniques are the dynamic glosses. The origin of dynamic glosses is to be found in the use of interactionist formats to diagnose language abilities and see the students' level. For instance, Antón (2009) resorted to this kind of technique for placement purposes at university. First, students carried out a non-dynamic activity, followed by a mediated writing and speaking task, where they were offered flexible assistance tailored to the student's level. The author claimed that mediated interaction led to a more accurate placement of students. In this line, Ableeva (2010) implemented a similar approach, and used the data obtained from the mediated interactions to write a learner profile for each participant.

Lantolf and Poehner (2004) distinguished between two types of dynamic interactions, namely, interventionist and interactionist or flexible. Regarding the former, mediation is built upon a list of pre-scripted linguistic prompts. These prompts are arranged in a hierarchical order, from the most implicit to the most explicit. As for the latter, the mediator does not have any script to follow. Yet, s/he does everything for interaction to continue, so that the learner can develop his/her independent performance, mediation arising naturally as a consequence.

Our study differs from previous research on dynamic glossing both in scope and methodology. As for scope, some studies in the context of child language acquisition implemented dynamic glossing for teaching and assessing children's L1 vocabulary knowledge (Burton & Watkins, 2007; Camilleri & Botting, 2013). These studies used graduated and incremental prompts and assistance with contextual and semantic cues during task-based interactions to probe children's word-learning ability, yet they focused on the development of the mother tongue. Regarding the field of L2 vocabulary, the authors above and others such as Poehner, Zhang & Lu (2015) or Lidz & Gindis (2003) have explored this type of glossing, but their participants were adults.

To the best of our knowledge, no study has yet implemented the dynamic glossing framework in the context of Primary Education in Spain. Concerning methodology, the learners in previous dynamic glossing studies (Teo, 2012; Poehner et al., 2015) had to choose between different definitions, whereas in our research no options were given to the participants to choose from, therefore eliminating any chance of guessing. In addition, as opposed to other studies such as Lantolf and Poehner (2014) and Poehner et al. (2015), the present study had human mediators to carry out the dynamic process.

AIM

The present study pursues to know whether dynamic glosses lead to better vocabulary acquisition than traditional ones within the EFL context of Primary Education. Accordingly, the questions on which our research relies are the following:

- Do dynamic glosses have an effect on both receptive and productive L2 vocabulary acquisition in comparison to traditional glosses?

- Is this effect consistent some time after the treatment?

METHODOLOGY

Participants

The participants of this study are 60 middle-class students (38 girls and 22 boys) of English as a Foreign Language in their sixth year of Primary Education with ages between 11 and 12. They belonged to a school in the Latina district in Madrid, which has a middle socio-economic background. None of them studied any other language or took English lessons out of the school. At the moment the study was carried out, the students had received around 450 hours of instruction, equating to an elementary level of English. They received two hours and forty-five minutes of formal English instruction per week. The three groups attended the same public school in Madrid, spoke Spanish as their mother tongue and could not speak any other language. In the second Spanish cycle of Elementary Education English is taught as a compulsory subject, it being basically conceived at the word level. In this particular context input was mainly and almost exclusively provided by the course book, which was followed by the teacher. Additionally, the teacher normally used the Spanish language as a way to explain words.

Target words and preparation of the activity

Three short reading passages were chosen from the upper-intermediate graded reader *The Empire of the Ants* (Wells, 2009), which is adapted from the original work by Herbert George Wells. Ten target words in these passages were selected for the study. Following the natural number and distribution of word categories, we chose four nouns, three verbs and three adjectives. The passages were adapted for the treatment session in an attempt to have three fragments of the same difficulty and which were accessible for the participants. Complex structures were revised and vocabulary items (except for the target words) which were judged to be beyond the learners' level were removed from the texts. The aim was to prepare three texts of the same difficulty. The texts had a similar length, between 80 and 100 words. The selected target words were cockroach, poison, shore, sting, collapse, shrug, wonder, dubious, gloomy and reluctant. The procedures for conducting the treatment sessions for the three groups participating in the study are presented in the following section.

Given the participants' low level of English, it was improbable for them to know the words that were selected for the study, as they belong to the 5k level of frequency (Nation, 2001). Indeed, our elementary students were expected to know more frequent words among the 1k and 2k frequency levels (Nation, 2001). This provided some guarantee that the target vocabulary was unknown to the participants. Nevertheless, as mentioned below, participants were pre-tested on these target words before the treatment, which confirmed that these words were unfamiliar to them.

Data testing procedure

In order to investigate the effects of the two glossing conditions on L2 vocabulary learning, it was necessary to identify a number of words that were unfamiliar to the participants. To this end, the participants took a pre-test. Students were presented a list with the L2 target words. The pre-test consisted of providing the L1 equivalents for those L2 terms. After instruction was finished, the same test was administered in the form of a post-test and a delayed post-test three weeks after the treatment. Both the pre-test and the post-tests adopted the translation format and were based on recalling the L2 written word form for productive knowledge, and providing the L1 equivalent for the receptive knowledge.

For the productive test, words were arranged alphabetically and each of them was accompanied by a dotted line where the L2 equivalent was expected to be provided. As for the receptive test, participants were asked to provide the L1 equivalent of the L2 keyword. This type of test is considered to be reliable for L2 vocabulary acquisition (Read, 2000). Additionally, given the age and level of our participants, Nation (2001) encourages the use of the L1 in the vocabulary testing. The author holds that the attitude of rejecting translation for vocabulary assessment "is quite wrong [because] translation is one of a number of means of conveying meaning and in general is no better or worse than the use of pictures, real objects, definitions, L2 synonyms and so on" (Nation, 2001: 351).

Scoring for the pre-test and post-tests was based on a dual system. Minor spelling mistakes were not penalized unless they distorted the meaning of the word, or the word form was not understandable. For instance, both 'shore' and 'shone' exist in English but the use of 'n' instead of 'r' transforms the word into a completely different item with a different meaning. The second condition where the answer is penalized holds if the student writes *sreoh* – which is not understandable - instead of *shore*.

Dynamic glossing procedure

The participants in this group (DG) were presented the three texts where the target words were underlined. In this case, the dynamic glossing procedure was carried out by volunteering university students. They adopted an interventionist approach, where the mediators followed a script with prompts, arranged in a hierarchical order from most to least implicit. Participants were asked to read each fragment. As they encountered an underlined target word, they were asked to try and say a definition or the L1 equivalent of the target word. They were allowed to use the Spanish language as their level, as stated above, was elementary. When participants were reading the texts and got to an underlined word, the process of dynamic glossing started. The mediator started with the same prompt to help the participant identify the word or provide a right definition. If the learner was unable to identify the word or gave a wrong definition, the second prompt was provided.

The process continued until the participant could give a correct answer or until all the prompts were used. If the participant was still unable to figure out the meaning of the word, the mediator would show a card with the right definition, and would ask the participant to keep on reading. They repeated the process for each of the ten target words. Up to five different prompts were used. The first four prompts were based on Rassaei's list of mediating prompts (2020) following the principles that this mediation should be "contingent, graduated and dialogic" (Rassaei, 2020: 292). The fifth prompt was included as an innovation to the present study. Since the mediators could interact in a face-to-face way with the participants, we included this fifth prompt where speech was combined with gestures. The following excerpt samples the process of dynamic glossing and the prompts used:

Learner: (Stops reading and points to the target word)

Mediator: Could you please read the last sentence again and try to guess what *poison* means?

Learner: [no response]

Mediator: Pay attention to this part please: "It was dangerous to drink that, it can contain poison and you can get ill or even die"

Learner: [no response]

Mediator: Why is it "dangerous to drink that"?

Learner: …you can get ill or die…morirte si lo bebes ¿no?.

Mediator: So *poison* means…?

Learner: Veneno

Traditional glossing procedure

The traditional glossing group (TG) worked with the same three fragments and the same 10 target words. However, in this case the participants were directly provided with the L1 equivalent of the target words. The equivalents were found just at the end of the line where the target word appeared. As mentioned above, the support provided by traditional glosses was not graduated. Thus, no mediation or negotiation in search for meaning took place.

Control group procedure

The learners in the control group were presented the same three texts as in the dynamic glossing and the traditional glossing group. However, they did not have any access to the meaning of the target words. Students just had to read the texts. The process in both the traditional glossing and control group took less time than the dynamic glossing procedure, as the access to meaning was immediate in the first and inexistent in the second.

Data analysis

Both descriptive and inferential statistics were carried out. As for descriptive analysis, the means obtained in each group of students were calculated. Inferential statistics allowed us to see whether there were significant differences between the three types of treatment. Thus, one-way analysis of variance (ANOVA) was run for both immediate and delayed tests in relation to receptive and productive knowledge.

RESULTS

Immediate receptive and productive tests

As can be observed in Table 1 the group who worked with dynamic glosses obtained the highest numbers concerning both receptive and productive immediate tests, with a mean of 8.25 (sd 0.85) and 7.35 (sd 0.87) respectively. At the same time, the traditional glossing group reported a higher mean than the control group.

Table 1. Descriptive statistics of immediate tests.

	N	Receptive		Productive	
		Mean	sd	Mean	sd
DG	20	8.25	0.85	7.35	0.87
TG	20	6.85	0.93	4.60	0.59
Control	20	3.4	0.82	2.35	0.58

Delayed receptive and productive tests

As for delayed tests, we can observe that, once again, the group of dynamic glosses outstands over the other two with means of 7.05 (sd 0.75) for receptive and 3.6 (sd 0.50) for productive vocabulary knowledge. Yet, in this case, the means in the traditional glosses and the control group are very similar, over 3 for receptive and 1.8 (0.61) and 1.3 (0.97) for productive.

Table 2. Descriptive statistics of delayed tests.

	N	Receptive		Productive	
		Mean	sd	Mean	sd
DG	20	7.05	0.75	3.6	0.50
TG	20	3.25	1.65	1.8	0.61
Control	20	3.05	0.88	1.3	0.97

In order to know whether the differences between the three groups are statistically significant, we carried out a one-way test of analysis of variance (ANOVA). Table 3 shows the results of the ANOVA tests for the receptive and productive tests, both immediate and delayed. With respect to the immediate receptive vocabulary tests (IR), scores revealed significant differences among the groups, as the level associated to F (164.8) was lower than 0.05 (p=0.000). Tukey post-hoc analysis was run so that we could specify where those differences had been given. We could observe that the participants of the DG group significantly outperformed the TG group (p <0.05) and also the control group (p <0.05). Moreover, the results indicated that the TG group also outscored the control group (p <0.05). In the same vein, the differences between the delayed receptive tests (DR) were also significant, where the value associated to F (74.5) was lower than 0.05 (p =0.000). In this case, the Tukey post-hoc analysis revealed that the significant differences were to be found in the DG group with respect to the TG and the control groups (p <0.001). Yet, no significant differences were found between the TG and the control groups.

Table 3. ANOVA for immediate and delayed receptive and productive tests.

		Sum of squares	df	Quadratic mean	F	Sig.
IR	Inter-groups	249.233	2	124.616	164.806	0.000
	Intra-groups	43.1	57	0.756		
	Total	292,333	59			
DR	Inter-groups	203.2	2	101.6	74.580	0.000
	Intra-groups	77.65	57	1.362		
	Total		59			
IP	Inter-groups	250.833	2	125.416	256.227	0.000
	Intra-groups	27.9	57	0.489		
	Total	278.733	59			
DP	Inter-groups	58.533	2	29.266	55.238	0.000
	Intra-groups	30.2	57	0.529		
	Total	88.733	59			

Regarding productive vocabulary, the ANOVA for the immediate test (IP) showed that the differences among the groups were significant with a value associated to F (256.2) which was much lower than 0.05 (p =0.000). These differences were found in the DG group and the TG group and the control group, where, as stated above, the first one outperformed the other two. What is more, results also pointed to significant differences between the TG group and the control group. As it comes to delayed productive tests (DP), the DG group obtained significantly better results that the other two groups, (F =55.2; p =0.000). The Tukey post-hoc analysis showed that the DG and the TG groups differed significantly at p <0.05. Yet, the TG group and the control group were not statistically significant.

DISCUSSION

The first question posed at the beginning of this paper was whether dynamic glossing had an effect on L2 vocabulary acquisition. Results seem to point in this direction as dynamic glossing outstands traditional glossing and the control group, both in receptive and productive conditions. This is in line with previous research on dynamic instruction and assessment carried out by Lantolf and Poehner (2011), Siekmann and Charles (2013) or Herazo et al. (2019). They all observed that providing mediation as a series of prompts helps L2 development. One of the possible reasons why this happens is to be found in what is called Zone of Proximal Development (ZPD) introduced by Vygotsky at the end of the 70s. It is defined as

> "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978: 86).

Thus, in the case of L2 vocabulary acquisition, instead of providing direct information about the keyword such as a definition or L1 equivalent, which is typical of traditional glossing, in dynamic glossing the students are offered prompts, which are expected to lead them to the acquisition of that keyword. In the same vein, the theories of the Involvement Load Hypothesis (Laufer & Hulstijn, 2001) and the Technique Feature Analysis (Nation & Webb, 2011) suggest that L2 vocabulary acquisition is strongly related to the cognitive effort that acquisition entails. According to Laufer and Hulstijn's hypothesis (2001), the possibility of learning an L2 word is directly proportional to the involvement load during the word processing. That is to say, the higher the involvement load, the better the acquisition.

Similarly, the Technique Feature Analysis is based on the deep processing of information to formulate its L2 vocabulary model, complementing the one proposed by Involvement Load Hypothesis. The degree of involvement and the cognitive effort implied in these two models is related to the concepts of elaboration and processing. Put it another way, activities with a deeper and more elaborated lexical processing are more effective. In fact, recent studies confirm that negotiation in communicative tasks promotes better vocabulary acquisition than those tasks with no negotiation (Azizi, 2016; Lee, Hampel & Kukulska-Hulme, 2019) as it is in traditional glosses. Traditional glosses have proved to yield good vocabulary acquisition results in intermediate and advanced stages of L2 learning (Lee & Jeon, 2017; Teng, 2020). However, they are not especially effective at elementary levels (Alcaraz-Mármol & Almela, 2013; Ramezamali, Uchihara & Faez, 2020). In dynamic glosses, by contrast, the meaning is not directly provided, as students approach it through a series of prompts, which encompasses reflexion and cognitive effort.

Furthermore, we should not forget that the dynamic process applied in the present study implies direct and face-to-face contact with the students, which affects their attention. Some previous literature about dynamic techniques and vocabulary learning have used digital devices such as mobile phones to introduce prompts (Chang & Hsu, 2011; Rassaei, 2020). In these two studies participants were adult learners who were able to follow the instructions provided and deal with the digital devices at use. Yet, the participants in the present study were school children. Then, given their context and age, we considered that it would be more convenient to have face-to-face mediation and instruction, monitoring the process from a more direct and individualized perspective. Even so, our results are similar to those of Chang & Hsu (2011) and Rassaei (2020), where input is digitally mediated and prompts are provided through applications such as WhatsApp or Telegram.

As for the second question, we wanted to know whether the possible effect of dynamic glossing could be extended. The delayed post-tests revealed that the DG group yielded higher results than the TG and the control groups, which did not significantly differ three weeks after the treatment. Our outcome reinforces the idea that not only do dynamic glosses help L2 vocabulary acquisition but they also help the mid-term retention of those keywords. Contrary to previous glossing and annotation studies, where mid-term L2 vocabulary retention was not reported (Yoshii & Flaitz, 2002

), the present research seems to be in line with more recent investigation (Ahmad, 2019; Ramezanali & Faez, 2019) where L2 vocabulary gains through glossing were consistent some time after instruction.

FINAL REMARKS

This paper explored the effect of dynamic glosses on L2 vocabulary learning in Primary Education students. In the light of the obtained results, we can suggest that dynamic glossing may constitute a better approach to learning new L2 words than traditional annotation and the control group. The outperformance of the group working with dynamic glosses was observed both in receptive and productive knowledge, as well as in immediate and delayed testing. To our knowledge, this is the first report of this kind of treatment in Primary Education students in Spain. Thus, future research on dynamic glossing might extend the explanations of our results. Future studies could compare dynamic glossing with other treatments and replicate our research in other educational contexts.

ACKNOWLEDGEMENT

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