THE EFFECT OF READING ONLY, READING AND COMPREHENSION, AND SENTENCE WRITING IN LEXICAL LEARNING IN A FOREIGN LANGUAGE: SOME PRELIMINARY RESULTS

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ABSTRACT. The present paper investigates the effectiveness of three different methods of incidental vocabulary acquisition in a foreign language. Participants were randomly assigned to a reading only group, to a group assigned a glossed text reading with comprehension questions from the target words, and to a sentence writing group from words in a bilingual list. Results revealed that participants who wrote the sentences with the target words from a bilingual list managed to recall more words productively and receptively immediately and after three weeks. However, results are only significant for immediate testing but not for delayed testing. The least effective method is the reading only. From these results, we argue that activities that present vocabulary in a decontextualized way with focus on the relationship between form and meaning should be central in vocabulary instruction, and they should be complemented with reading activities where attention is drawn to the target lexical items.

KEY WORDS. Reading, focus on form, focus on forms, vocabulary acquisition, productive and receptive vocabulary.

RESUMEN. Este estudio investiga la efectividad de tres métodos de adquisición incidental de vocabulario en una lengua extranjera. Los participantes fueron asignados de manera aleatoria a un grupo de solo lectura, lectura con glosas y preguntas de comprensión o redacción de oraciones con palabras de una lista bilingüe. Los resultados revelan que los participantes que escribieron oraciones con las palabras meta de una lista bilingüe consiguieron aprender y retener más palabras de modo productivo y receptivo inmediatamente y tres semanas después del tratamiento. Sin embargo estos resultados son significativos para las pruebas inmediatas. El menos efectivo de los tres métodos fue el de solo lectura. De estos resultados podemos concluir que las actividades que presentan el vocabulario de una manera descontextualizada poniendo el foco en la relación entre forma y significado del elemento léxico deben ser centrales en la instrucción del vocabulario. Además éstos deberían complementarse con actividades de lectura.

PALABRAS CLAVE. Lectura, foco en la forma, foco en las formas, adquisición de vocabulario, vocabulario productivo y receptivo.
1. INTRODUCTION

Attempts at finding the most effective methods for the teaching of vocabulary have derived from the observation of how the different components of lexical competence develop. Those methods that best reflect and support the process of lexical acquisition are preferred for vocabulary instruction. Echoing the traditional distinction of teaching approaches: focus on formS (FonFs), focus on form (FonF), and focus on meaning (Long and Robinson 1998), Laufer (2006, 2004, 2003) reviewed these methods in light of lexical learning, making a strong case for the FonFs approach.

A considerable number of studies have been devoted to finding out the most effective methods of vocabulary acquisition in the foreign language. These studies argue for a recurrent tension in vocabulary learning and teaching between explicit instruction, e.g. matching, multiple choice, translation, word morphology analysis, or sentence building exercises, and implicit instruction, e.g. extensive reading, (Meara 1997; Nagy 1997; Sökmen 1997; Singleton 1999; de Groot 2000; Nation 2001: chapters 7 and 8). The main difference that distinguishes both approaches is the features of the input to which they pay attention. Extensive reading focuses on the meaning of the message (focus on meaning), whereas exercises of explicit vocabulary instruction centre on the relationship between meaning and form, or on form alone. In other words, they focus on form or on formS (Nation 2001: 2). The following sections will be devoted to review the most representative studies for each approach in more detail.

1.1. Vocabulary acquisition through reading

Research on the effect of reading on the learner’s lexicon and general language proficiency has revealed positive interactions between reading and the acquisition of vocabulary (Pitts, White and Krashen 1989; Dupuy and Krashen 1993; Cho and Krashen 1994; Grabe and Stoller 1997; Mason and Krashen 1997; Horst et al. 1998; Lao and Krashen 2000; Zahar, Cobb and Spada 2001; Rodrigo, Krashen and Gribbons 2004), between reading and reading comprehension (Mason and Krashen 1997: experiment 3; Lao and Krashen 2000), between reading and reading speed (Mason and Krashen 1997: experiment 3; Lao and Krashen 2000), between reading and writing quality (Mason and Krashen 1997: experiments 2 and 3), between reading and oral fluency (Cho and Krashen 1994), between reading and grammatical accuracy (Rodrigo et al. 2004) and between reading and motivation (Cho and Krashen 1994; Mason and Krashen 1997: experiment 1; Lao and Krashen 2000). However, despite the studies that point to the benefits of reading in lexical learning, Nation and Coady (1988), Horst, Cobb and Meara (1998), and Waring (2001), claim that there is no definitive evidence in favour of the hypothesis of foreign language vocabulary learning through reading.

The relevance of reading as an activity leading to vocabulary acquisition cannot be denied, though. On the one hand, it provides learners with multiple exposures to words. Learners need around 8 encounters with a word in order to acquire it, although there is
no consensus in this respect (Nagy 1997; Horst et al. 1998; Nation and Wang 1999; Nation 2001; Zahar et al. 2001). On the other hand, reading presents words within variable linguistic and paralinguistic contexts, which would contribute to expanding and consolidating the knowledge the learner has of a word (Nassaji 2003: 664). Nevertheless, as research has suggested a considerable amount of reading time is necessary for lexical acquisition to take place due to two main reasons. First, in the foreign language the acquisition rate is much slower than in the mother tongue. Therefore, foreign language vocabulary learning through reading is far from being the enriching activity it is for first language vocabulary acquisition (Horst et al. 1998; de Groot 2000; Zahar et al. 2001). Second, in order to encounter a word eight times or more, the learner has to devote many hours to reading (Grabe and Stoller 1997; Horst et al. 1998; Nation and Wang 1999). This makes reading an unrealistic approach for lexical acquisition in foreign language contexts.

1.2. Focus on form in lexical acquisition

The FonF approach was initially developed within the framework of second language grammar instruction studies (see, for instance, Long 1997; Doughty and Williams 1998; Doughty 2000; Ellis et al. 2001; Izumi and Bigelow 2001; L. Ortega 2001; Ortega Olivares 2001; Alcón Soler 2002: 361; Ellis, Basturkmen and Loewen 2002; Sheen 2002). Nevertheless, many studies have also approached lexical acquisition from the FonF perspective with the conviction that lexical acquisition can also benefit from a FonF methodology. Nation (2001), for instance, supports the introduction of a FonF component in vocabulary instruction, and several other researchers include examples of lexical forms in the explanations and discussions about FonF (Doughty and Williams 1998b: 212; see also Long and Robinson 1998; Swain 1998; Ellis et al. 2002, 2001).

In this sense, the FonF method consists in occasionally directing the learner’s attention towards the meaning of lexical items (Ellis et al. 2001: 415), or either towards the relationship between the form and the meaning of the target words during the course of a communicative activity. Within this approach, problematic words, words difficult to learn, or words of low frequency are subject of careful examination (see Nation 2001).

The most representative type of FonF activities dealing with lexical instruction are the reading of glossed texts, looking up words in the dictionary while reading, or responding to questions about target words in the text after finishing reading a passage.

Several empirical studies have shown that some linguistic aspects, vocabulary in particular, are better learned when the learner specifically focuses on their form (Nation 2001: 250; L. Ortega 2001: 14; Laufer 2003, 2004). Recently, Paribakht and Wesche (1997), Rott (2004, and Rott, Williams and Cameron 2002) and Zimmerman (1997) proved that reading complemented with activities which focused on form, basically dictionary search of unknown words or reading glossed texts, obtained better results in terms of vocabulary gains than reading alone. Even Cho and Krashen (1994) acknowledged that learners who looked up unknown words in the dictionary while
reading obtained higher vocabulary gains. In a similar vein, research conducted by Hulstijn (1992), Lomicka (1998), Hill and Laufer (2003), Laufer (2003), Sánchez (2004) pinpoints the positive effect of performing FonF in vocabulary teaching. There is enough evidence to conclude that a FonF approach to vocabulary acquisition which consists in reading plus vocabulary enhancement activities is a very effective way to promote target language vocabulary acquisition and retention (Min 2008).

1.3. Focus on forms in lexical acquisition

Various studies have investigated the efficacy of FonFs activities in the acquisition of vocabulary in the foreign language. These activities are decontextualized, pre-selected, planned, and do not respond to any communicative interchange. Language is seen in this case as the object of study rather than as a tool for communication as in previous approaches (Laufer 2006). As far as vocabulary is concerned, FonFs involves the isolation of lexical items and their consideration out of context and independent from any communicative situation. In this sense, the focus is solely on the relationship between the form and meaning of the target words. Some examples of FonFs activities are bilingual lists, synonym, or antonym matching exercises, sentence building exercises, or translation exercises.

The few studies that examine vocabulary acquisition from activities that focus the learner’s attention on the isolated words deprived of further linguistic context, e.g. bilingual lists, or sentence writing exercises, have shown very positive results (Mondria 1993; Qian 1996; de Groot 2000; Hill and Laufer 2003; Laufer 2003). What these findings suggest is that considerable lexical learning derives from activities that manipulate words as discrete items, and that higher vocabulary gains can be expected from FonFs approaches than from FonF, and especially, than from meaning centred instruction. These studies show results for word learning derived from the completion of word-definition matching exercises, translation tasks and sentence writing. The focus of these activities is on the word as an isolated item, and they do not have any communicative aim (cf. Laufer 2006). The high explicitness of FonFs activities has been pointed out as a facilitating factor in foreign word learning (San Mateo Valdehíta 2003/2004; Rosa and Leow 2004; Sánchez 2004).

Several studies have compared the effectiveness of meaning-focused activities and FonF, and FonFs approaches in lexical learning (Gass et al. 1999; Rodríguez and Sadoski 2000; Gu 2003; Laufer 2003; San Mateo Valdehíta 2003/2004; for L1 Pressley et al. 1987). Findings from these studies point to higher word gains for FonFs approaches than those derived from reading activities with or without glosses. A good representative of this current is Laufer (2006), who found FonFs to be a more effective vocabulary training and teaching method than FonF, in particular when incidental learning is taking place. Consequently, she is in favour of the implementation of FonF and especially of FonFs activities when teaching foreign language vocabulary. Studies that promote the use of FonFs to teach foreign vocabulary search for most effective ways to vocabulary learning and retention.
Although most research points to FonFs activities as being the ones that generate highest vocabulary gains, methodological flaws regarding the operativization of measures do not allow for definitive conclusions to be drawn in this respect. Rather, empirical results concur with teaching experience in that foreign language vocabulary should be taught with a combination of methods.

1.4. Aim and research questions

To date, the number of studies that try to find the most effective method of vocabulary teaching and acquisition is considerable. However, curiously enough, there is a lack of empirical research devoted to compare the relative effectiveness in vocabulary learning between reading, FonF, and FonFs activities.

This study intends to show which of the three proposed vocabulary instruction methods: reading, FonF, and FonFs is the most effective in terms of productive and receptive lexical gains in the short and long run. With this purpose in mind, we set out to investigate the following research questions:

1. Which of the three treatments: reading, FonF, or FonFs will result in higher vocabulary gains at a productive level in the short run?
2. Which of the three treatments: reading, FonF, or FonFs will result in higher vocabulary gains at a receptive level in the short run?
3. Which of the three treatments: reading, FonF, or FonFs will result in higher vocabulary gains at a productive level in the long run?
4. Which of the three treatments: reading, FonF, or FonFs will result in higher vocabulary gains at a receptive level in the long run?

2. Methodology

The present study has been designed to find out what vocabulary learning and instruction method is most effective for SFL. To fulfill this purpose, the study took a post-test design with three independent variables: a) instruction method, which in turn had three levels: reading, glossed reading (FonF activity), and sentence writing with the words of a bilingual list (FonFs activity); b) type of vocabulary knowledge, with two levels: productive and receptive; and c) testing time, with again two levels: immediate and delayed. The first independent variable is a between groups variable, i.e., each group can only be ascribed to a level of the variable, and the other two are within groups, i.e., all groups belong to all levels of the variables at any or other time. Vocabulary gains, i.e., number of learned words is the dependent variable.

2.1. Participants

A total of 27 learners of SFL participated in the study. Participants came from Germany and had German as their mother tongue. They were between 18 and 19 years
of age and were attending their last year in high school, a university preparatory course. The intact class participated in the study. After a total of 184 hours of instruction, subjects had achieved a high-intermediate proficiency level in Spanish and could therefore be ascribed to the B2 level of the CEFL (2001).

Informants were randomly assigned to one of a total of three groups, each of which was required to perform a different incidental vocabulary learning activity. The first group had to read a text and answer three general comprehension questions after the reading, this will be called the reading group. The second group was asked to read the same text, but with 10 ten target words glossed in the margin, then, learners in this group had to answer a set of 10 comprehension questions which involved the target words. This activity is a FonF activity and thus this group will be called henceforth the FonF group. The third group of participants was given a bilingual list with the ten target words in Spanish translated into German L1. They were asked to write original sentences with each of the words. This group will be called henceforth FonFs group, because theirs was a FonFs activity.

2.2. Materials

Text. The text and the reading comprehension questions for the reading group were taken from the website of the Instituto Cervantes and corresponded to the advanced DELE Exam from the 20th of November 2004. More specifically, the 525 word text dealt with the role of teachers in current society relative to their morals and their behaviour. The three comprehension questions were of the multiple choice format with two distracters and one correct answer (see Appendix A). Ten target words unknown to the subjects (see below) were selected from this text: dar al traste, aliciente, tallador, repudiar, granjearse, comedimiento, aspiraciones, iniciativa, ajustarse, retos. Reading texts are considered an adequate tool to measure the effect of reading on incidental word learning. This text was found to be appropriate to the level of the informants as revealed by a pilot study. Moreover, since it was a text taken from the official standardized DELE exam its reliability and validity as a testing instrument was assumed.

Glossed Text. The FonF group received the same text, but with the ten target words glossed in German in the margin. Following the reading, participants had ten multiple choice comprehension questions involving the target words (see Appendix B). These comprehension questions were developed by the author of this paper. Glossing texts is considered a good way to enhance the effect of reading on incidental vocabulary acquisition. Many studies operativize FonF through glossing texts (see e.g. Laufer 2006, 2003, Rott et al. 2002, Lomicka 1998). Frequently reading texts are followed by comprehension questions (cf. Laufer 2006).

Bilingual List. The FonFs group was given a bilingual list with the ten target words translated into German with which subjects had to write sentences (see Appendix C). One of the most illustrative activities of the FonFs condition is sentence writing or blank filling with the words from a bilingual list (cf. Laufer 2006, 2003, Barcroft 2004).
We opted for this operationalization of the three approaches because they are frequent in research and we thought they were the most illustrative tests for each method. Furthermore, these tasks are ecologically valid, since they are often used inside the classroom.

Test of productive vocabulary knowledge. In order to test the productive vocabulary gains of learners after the treatment, we administered a test in the form of a bilingual list, where participants had to provide the Spanish translation of the target words given in German. Moreover, in order to make sure whether subjects had ever seen any of the target words, they were asked to tick (✓) those words already known, and to say whether they had ever worked with the text provided (see Appendix D). None of the participants knew any of the target words.

Test of receptive vocabulary knowledge. In order to ascertain the receptive vocabulary gains of participants after each activity, subjects were required to complete a test of receptive vocabulary, where they had to translate the ten Spanish target words into German (see Appendix E).

The order in which the target words appear in the activities and in the tests varies all over (see appendixes). Instructions were provided in German, the L1 of informants.

2.3. Procedures

After having assessed the difficulty of the text in a pilot study and having confirmed that subjects were not familiar with the selected target words, we proceeded to the implementation of the activities. Participants were assigned randomly to one of the three treatments, so that each group consisted of 9 learners. Subjects belonging to the reading group were coded with the number 1 to 9, those belonging to the FonF group were 10-18, and with the code numbers 19-27 we identified participants in the FonFs group. Participants were unaware of the real aim of the study, although they were informed that they were participating in a study searching for the effectiveness of three methods of learning in SFL. The activities were performed in their regular Spanish classes as programmed activities. Informants were free to ask the teacher during the course of the activity and the reading group also had dictionaries at their disposal to look up the unknown words. In such cases, they were required to underline the words looked up. This possibility improves the ecological validity of the activity.

Subjects in each group had 30 minutes to complete the assignment, i.e., the activity they were assigned to. Once the 30 minutes were over, the teacher collected the activities and handed out the unexpected test of productive vocabulary knowledge for which learners had 10 minutes. After some minutes devoted to other activities, the teacher administered the test of receptive vocabulary knowledge for 10 minutes.

Three weeks after the treatment, the two tests were administered again unexpectedly. The productive test was handed out at the beginning of the lesson and the receptive at the end.

Informants S9 and S15 were not present for the delayed tests, for which reason they were excluded from the statistical analysis.
2.4. Analysis

When data were collected, correction of the immediate and delayed productive and receptive vocabulary tests followed. Following Laufer and Hulstijn (2001), we gave one point to each correct answer. Semantic approximations in the form of explanation or translation, and formal approximations (spelling) to the target word in the receptive test scored half a point. Incorrect or blank answers were given a score of zero. Synonyms provided in the productive test were not scored. Considering the present scoring scale we can pinpoint that subjects could obtain a maximum of 10 points if a correct translation of all target words was provided, and a minimum of 0 points for each of the tests at both testing times.

First, descriptive statistics were performed and the means and standard deviations of the data were calculated. Afterwards, in order to find out whether there were significant differences between the mean values of the treatment groups we performed an analysis of variance (ANOVA). In the 3x2x2 ANOVA treatment learning approach was considered the within-group factor, meanwhile time of tests and type of knowledge tested were considered between-group factors. Still a further statistical test was carried out in order to explore the differences between the groups and the direction of the effect. This was a post-hoc Scheffé test. All analyses were carried out with the SPSS 14.0.

3. Results

Analysis of the data revealed that learners who were required to complete the FonFs activity manage to recall (productive knowledge) and recognize (receptive knowledge) the highest number of words when tested immediately afterwards and also three weeks after the activity. Table 1 present the scores obtained in the four different tests aimed at measuring productive and receptive word knowledge immediately after the treatment and after three weeks. From the figures in the table, we can observe that learners who had to read the non-glossed passage obtained the lowest scores in all tests. Subjects who were in the FonF group, i.e. who read the glossed text passage and answered the reading comprehension questions scored better than the reading only group but worse than the FonFs group.

<table>
<thead>
<tr>
<th></th>
<th>Immediate productive (P1)</th>
<th>Immediate receptive (R1)</th>
<th>Delayed productive (P2)</th>
<th>Delayed receptive (R2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>0.66</td>
<td>4</td>
<td>0.375</td>
<td>1.75</td>
</tr>
<tr>
<td>FonF</td>
<td>1.27</td>
<td>4.11</td>
<td>0.5</td>
<td>3.5</td>
</tr>
<tr>
<td>FonFs</td>
<td>3.61</td>
<td>6.55</td>
<td>1.05</td>
<td>3.77</td>
</tr>
</tbody>
</table>

Table 1. Mean scores of the tests.
In order to ascertain the significance value of the differences between the three treatments for the four tests we performed an ANOVA. Results on the analysis of variance show that differences are significant among the three treatments for the immediate tests, but not for the delayed ones. The following table offers the specific values of F for each of the testing situations.

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate productive (P1)</td>
<td>12.005*</td>
<td>2</td>
</tr>
<tr>
<td>Immediate receptive (R1)</td>
<td>5.422*</td>
<td>2</td>
</tr>
<tr>
<td>Delayed productive (P2)</td>
<td>1.303</td>
<td>2</td>
</tr>
<tr>
<td>Delayed receptive (R2)</td>
<td>4.288</td>
<td>2</td>
</tr>
</tbody>
</table>

* significant at p < 0.01

Table 2. Results of the ANOVA.

A further statistical test, the post hoc Scheffé test, was carried out to establish the effect of the significance of the methods among them. As can be observed in Table 3 learners who were given the list of words with the translation and had to write sentences with the target words obtain significantly better scores in the test of productive vocabulary knowledge carried out immediately after the treatment than participants who were assigned to the other two treatments: reading only and reading the glossed text and answering the comprehension questions. The results for the immediate test of receptive vocabulary knowledge parallel the former. However, for receptive word knowledge the differences among the methods, although significant, are smaller. In the delayed test of productive word knowledge subjects of all groups perform similarly with no significant differences among the methods. For the receptive test differences are only significant between subjects who were in the reading only group and in the FonFs group. These latter scored significantly better than their peers from the reading only group in the delayed test of receptive vocabulary knowledge.
From the results previously accounted for we can conclude that the FonFs treatment will result in higher vocabulary gains at a productive and receptive level, especially in the short run. The FonF activity was the second most effective method and last the reading only activity. The advantage of the FonFs treatment of foreign vocabulary learning over the other two is especially remarkable when productive knowledge is tested immediately after the treatment. After three weeks it seems to lose effectiveness in respect to the other two conditions.

Two other further observations could be made when examining the data of the present study. First, learners obtained better scores in the productive than in the receptive test irrespective of the activity they were required to do. Second, immediate testing showed better results than delayed testing.

4. DISCUSSION AND CONCLUSION

Data analysis has revealed very interesting results. In general terms, we have observed that our data allow to establish a hierarchy relative to the effectiveness in lexical acquisition of the three methods here investigated.

<table>
<thead>
<tr>
<th></th>
<th>Reading</th>
<th>FonF</th>
<th>FonFs</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1 Reading</td>
<td>-0.611</td>
<td>-2.94**</td>
<td></td>
</tr>
<tr>
<td>P1 FonF</td>
<td>0.611</td>
<td></td>
<td>-2.33**</td>
</tr>
<tr>
<td>P1 FonFs</td>
<td>2.94**</td>
<td>2.33**</td>
<td></td>
</tr>
<tr>
<td>R1 Reading</td>
<td>-0.11</td>
<td></td>
<td>-2.55*</td>
</tr>
<tr>
<td>R1 FonF</td>
<td>0.11</td>
<td></td>
<td>-2.44*</td>
</tr>
<tr>
<td>R1 FonFs</td>
<td>2.55*</td>
<td>2.44*</td>
<td></td>
</tr>
<tr>
<td>P2 Reading</td>
<td>-0.12</td>
<td></td>
<td>-0.68</td>
</tr>
<tr>
<td>P2 FonF</td>
<td>0.12</td>
<td></td>
<td>-0.55</td>
</tr>
<tr>
<td>P2 FonFs</td>
<td>0.68</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td>R2 Reading</td>
<td>-1.75</td>
<td></td>
<td>-2.02*</td>
</tr>
<tr>
<td>R2 FonF</td>
<td>1.75</td>
<td></td>
<td>-0.27</td>
</tr>
<tr>
<td>R2 FonFs</td>
<td>2.02*</td>
<td>0.27</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Post-hoc comparisons of means for the treatments in the four conditions.

*significant at p < 0.05
**significant at p < 0.01
In line with previous research by Hulstijn and Laufer (Hulstijn and Laufer 2001; Laufer and Hulstijn 2001; Laufer 2003, 2006), our results show that explicit focus on the relationship between form and meaning of the lexical item contributes positively to the acquisition of that item. Especially in comparison with other methods of incidental vocabulary acquisition which basically focus on meaning, such as reading and glossed reading. In this sense, our results are in line with previous literature in concluding that a higher involvement load or explicitness of the lexical activity benefits lexical learning (Hill and Laufer 2003; San Mateo Valdehíta 2003/2004; Laufer 2004; 2006; Rosa and Leow 2004; Sánchez 2004). Even researchers who advocate for reading as the best lexical learning method acknowledge that words which have been looked up in the dictionary and which in turn receive more attention from the learners have more chances of being acquired (Cho and Krashen 1994).

The involvement load of the activity seems to be closely related to the possibilities a word has to be acquired (see Ellis, N. 1997). The more the learners work with or manipulate the word the better and quicker will it be incorporated into the mental lexicon. In line with this, participants in our study who performed the FonFs activity worked more intensively with the target words than those of the other two groups, since they had to write sentences with those words. In turn, participants in the FonF group had a higher involvement load with the target words than those of the reading only condition, since the former had to use the target words to answer the comprehension questions. We can thus observe that those activities that focus on the relationship between the form and the meaning of the lexical item require higher involvement from the learners and consequently throw better results in lexical learning (see Sökmen 1997: 242-244; Nation 2001).

Our results are in line with Laufer and Hulstijn (2001) who observed that productive use of vocabulary, e.g. by writing sentences, has a high involvement load and thus facilitates lexical learning. San Mateo Valdehíta (2003/2004) also believes that writing texts including the target words is the strategy that promotes vocabulary acquisition the most. Our results also concur with the “output hypothesis” formulated by Swain (1995) which states that activities that generate output are more effective than those which only provide learners with input. Likewise, Webb (2005: 50) showed that writing sentences is a more effective method of gaining vocabulary knowledge than glossed reading.

The result that points to the reading only condition being the least effective of the three conditions investigated here is not surprising in light of preceding research studies. Guessing meaning from context did not succeed on all occasions as can be seen from the low word acquisition rate (cf. Nagy 1997; Nation 2001: chapter 7; Laufer 2004). Furthermore, this study supports previous findings that reading only without any cognitive need or affective factor (pleasure reading, relate the reading with personal experiences) is not as effective as reading done with some other manipulation or elaboration such as dictionary search (Cho and Krashen 1994; Paribakht and Wesche 1997; Zimmerman 1997; Hulstijn and Laufer 2001). We agree with Laufer (2004) that when reading the focus is laid on the global understanding of the text and unknown
words which are not essential to global and general understanding are skipped and not
paid attention to. This makes acquisition of those words a very complicated task.

In addition to this, our results coincide with previous findings of studies that measure
reading effectiveness with short texts\textsuperscript{11}. These studies (Hulstijn 1992; Zahar et al. 2001; see
also Laufer 2004: 6) report lexical gains of between 1 and 5 words per text. In our study
participants manage to learn an average of 0.375 and 4 words after a reading
comprehension exercise. Consequently, we may argue following Horst, Cobb and Meara
(1998) that when increasing text length and thus the number of words that can potentially
aid learners in guessing meanings from context\textsuperscript{12} the number of words learners learn may
also increase. In this sense, a longer text implies higher gains in vocabulary after a reading
activity\textsuperscript{13}. Rodrigo, Krashen and Gribbons (2004: 59) speculate in the same line regarding
reading effectiveness in lexical learning when extending the reading activity in time.

In our data, the method that focused on the relationship form-meaning of the
lexical item during a communicative activity obtained better results than the reading
only condition and worse than the FonFs condition. This result is in line with previous
research studies (Hulstijn 1992; Paribakht and Wesche 1997; Zimmerman 1997;
Lomicka 1998; Hulstijn and Laufer 2001; Hill and Laufer 2003; Rott 2004; Sánchez
2004). Calling the attention of the learners to the target words, e.g. by underlining them
or giving morphological or syntactic information favours the incidental acquisition of
those words (Lomicka 1998; Laufer and Hill 2000: 72; Sala Caja 2004).

However, the most effective lexical acquisition method was the FonFs activity
where learners had to write sentences with the target words. This result concurs with
previous findings that show the benefits in lexical learning of the systematic presentation
of discrete lexical items in isolation (Hulstijn and Laufer 2001; Hill and Laufer 2003;
Laufer 2003; 2004; 2006), and thus conclude with Nation (1993) and Horst, Cobb and
Meara (1998) in the need to implement decontextualized and FonFs activities.

We believe that the selection of the target words and the design of FonFs activities
is crucially important for lexical acquisition to proceed successfully. Word lists should
be complemented with exercises of lexical manipulation such as the writing of
sentences, the elaboration of mind maps, association exercises, and so on in order to
increase their effectiveness (Nation 2001; San Mateo Valdehíta 2003/2004: 32). It is a
generally acknowledged fact in the literature (Carter and McCarthy 1988; Chanell 1988:
94; Nation 1993; Horst, Cobb and Meara 1998; Higueras 2004) that the presentation of
words in isolation such as for instance through bilingual word lists and definitions is a
particularly effective way to introduce new vocabulary especially at the beginning levels
of foreign language acquisition. Once learners have acquired a sufficient number of
lexical items in their mental lexical store, then they will benefit greatly from extensive
reading to expand that vocabulary. But even at more advanced stages of acquisition, the
introduction of words in an explicit and direct way also turns out to be effective (Laufer
1991; Sala Caja 2004).

With all, the advantage obtained by the FonFs condition reduces dramatically in the
delayed tests. A decontextualized presentation of lexical items seems very effective in the
short term but loses effectiveness in the long run (cf. de Groot 2000). We believe that the lack of context to which to resort when recalling the target words may be responsible for this loss of effectiveness. Context may contribute to promote memorization and recall of lexical items. De Groot (2000) obtained similar results to ours relative to the lack of effectiveness of FonFs methods in delayed tests and he thus advocates for the introduction of lexical items in context if long term retention is the objective.

In this sense, our study confirms the general belief that without practice, receptive and productive vocabulary knowledge tends to decrease with time (see also de Groot 2000: 75). Furthermore, our results support the idea that vocabulary acquisition is an incremental process and that vocabulary knowledge is cumulative and therefore proceeds from exposure to input and practice and repetition (Nation 1993; 2001; Nagy 1997; Sökmen 1997; Hort et al. 1998; Zahar et al. 2001; Laufer 2004).

4.1. Pedagogical Implications

From the results of the present study, we can highlight a series of pedagogical implications for vocabulary instruction in a foreign language. It seems logical to propose in light of our results the implementation of activities that present vocabulary in a decontextualized way. These activities would derive in higher productive and receptive lexical gains than reading activities focused exclusively on meaning. We, therefore, advocate for a FonFs vocabulary instruction approach where the focus on particular lexical items would be the starting point and where direct and explicit vocabulary practice represents the central component of lexical teaching.

Nevertheless, we agree with other researchers that the best way to acquire vocabulary in the foreign language is through the combination of incidental learning, for instance extensive reading, and direct vocabulary instruction (Stoller and Grabe 1995; Sökmen 1997: 239; Nation 1993; 2001). For example, direct instruction of vocabulary can be particularly effective with learners of low competence (Chall 1987: 12; Nation 1993). Bilingual lists and definitions may be a good way to introduce words at the early stages of lexical learning (Carter and McCarthy 1988; Coady 1997; Nation and Waring 1997; Sökmen 1997), or to introduce new lexical items or new meanings of already familiar words at more advanced learning stages. Gradually, the presentation of lexical items in isolation should be substituted by a more natural learning style based on communicative context, for example reading (Sökmen 1997: 239).

Special candidates for explicit instruction are cognates, false friends, multiword elements such as idioms, prefabricated expressions, gambits and so on which are not usually learned in an incidental way and are frequently submitted to explicit instruction (Gómez Molina 2004).

From our data, we can conclude that explicit and direct instruction is particularly useful with words with a high cognitive load which are difficult to learn (Schmitt 1998: 307; Nation 2001: 23-4). We can think of several cases when words are especially difficult: a) lack of semantic overlapping between target words and native equivalents,
for example *gewinnen*: *ganar*(se), *granjearse* (to win, to gain); b) synforms, which are formally similar words such as for instance *ajustarse/adaptarse* (to adjust/ to adapt), and c) collocations e.g. *dar al traste con*.

Learners should be instructed in vocabulary learning strategies such as guessing from context, using dictionaries, word analysis, mnemonic techniques, and so on (Sökmen 1997: 255). The use of several vocabulary learning strategies, methods and techniques is characteristic of good learners since it leads to positive results in lexical learning (Sökmen 1997: 245; Nation 2001).

Echoing Higueras (2004: 16) we conclude that the methodology we adopt to teach vocabulary should reflect and be concordant with what we know about the way in which vocabulary is learned.

This paper has shown that a FonFs approach yields better results in vocabulary acquisition than reading and glossed reading activities, specially in the short run, but it considerably loses effectiveness after some time. Consequently, we believe that from our results we can suggest a multifaceted approach to vocabulary instruction which could include a combination of reading assignments, and activities requiring some kind of word manipulation with or without context consideration. Nevertheless, we must remain circumspect in extrapolating our results, since the number of participants in the study is very small, and so our results have to be considered as preliminary. With all, this does not minimize the value of the statistical validity of the analyses.

Future studies should concentrate on examining the effectiveness of these methods concerning vocabulary acquisition over longer periods of time and including longer reading assignments, as well. It could also be interesting to explore the effectiveness of these methods regarding vocabulary gains of learners of different proficiency levels. This could be an issue for further research. Furthermore, only one type of lexical knowledge was measured, namely lexical-semantic, other types of word knowledge may also be subject to testing, e.g. associational, morphological, syntactic knowledge.

**Notes**

1. A thorough review of the FonF approach would go well beyond the scope of the present paper. Therefore, we refer readers to the original sources for further detailed accounts of FonF.
2. In the same line see Stoller and Grabe (1995), Laufer (1991b). See also Laufer (2004) and Laufer and Hulstijn (2001) for a detailed review of more studies that show the superiority of FonF activities over reading alone in lexical acquisition.
3. In fact, we cannot conceive of fully decontextualized activities, strictly speaking, since all activities performed in a classroom context are embedded within the unit’s topic. However, Focus on FormS activities are not linked to any explicitly communicative activity, and therefore the name decontextualized (see also Laufer 2004).
6. This stands for Spanish as a Foreign Language.
7. The design of this study reflects the work of Laufer (2003) and Laufer and Hulstijn (2001).
8. Here we want to thank the teacher Mrs. Stosiek and the students of the Year 2005/2006 in the Gymnasium am Neandertal in Erkrath, Germany.
10. Defining a word is not an easy task. Here we will refer to the smallest meaningful unit in language, which may include single words, compound words, fixed expressions or idioms.
11. This studies use texts of around 700 words (Laufer 2004). Remember that the text of the present study amounts to 525 words.
12. Furthermore, the number of unknown words in the text can also increase and therefore the number of words to be potentially learned increases, as well.
13. Suffice it here to think of the widely acknowledged activity of extensive reading.

REFERENCES


Laufer, B. y Hill, M. 2000. “What lexical information do L2 learners select in a CALL dictionary and how does it affect word retention?”. *Language Learning and Technology* 3 (2). 58-76.


APPENDIX A

Vorname:
Nachname:

Lesen Sie den folgenden Text und beantworten Sie die Fragen unter dem Text, indem Sie die richtige Antwort ankreuzen. Sie können ein Wörterbuch benutzen aber bitte unterstreichen Sie die nachgeschlagene Wörter.
LA ÉTICA Y EL MAESTRO

En un momento de descomposición social por la pérdida de cánones de comportamiento que dan al traste con el cultivo de valores heredados del hogar y fortalecidos en el proceso educativo, surge un gran aliciente de esperanza al evocar la palabra maestro o maestra como símbolo de guía, orientador, formador, tallador de personalidades.

El conductor educativo tiene la obligación de formar a los educandos para el régimen democrático, plasmando mentalidades democráticas, repudiando los privilegios de clase con sentido de eminente respeto a todas. Al conceptuar la amplitud de su ética profesional es necesario destacar el compromiso de respetar a sus semejantes, a las generaciones herederas de un presente estructurado sobre la base de un pasado cultural. Las relaciones del quehacer ético del docente con la sociedad se ponen de manifiesto cada día, puesto que constituye el blanco de observación en el comportamiento social ganjándose la confianza sobre la base de su conducta como profesional y ciudadano, pues sus pasos, actos y opiniones son constantemente observados, fiscalizados y criticados, por lo que debe imponer una conducta ejemplar para ser el espejo en el que se miren sus alumnos; por ello es el continuador directo de los padres de familia.

Con sobriedad, comedimiento y equilibrio debe manifestarse siempre, con el cuidado de la faz afectiva de sus relaciones, así como de su presentación personal sin caer en el desdén del refinamiento, de la coquetería ni de la presentación impropia. Su vida profesional, publica y privada debe ser prototipo de la máxima confianza hoy y siempre, tanto en el seno familiar como en el de la sociedad. El establecimiento educativo al que se debe, tendrá de él lealtad y franqueza, con el objeto de confluir en el mismo objetivo, la educación del alumno.

Frente al grupo humano que se nos confía deben regir las buenas relaciones, la actitud de justicia y trato igualitario sin que exista el abuso de confianza por parte de ese grupo, con el que se pierde fuerza moral. Con equidad se deben establecer las diferencias individuales teniendo como base inteligencia, temperamento, formación y aspiraciones, sin demostrar preferencias ni diferencias que hieran susceptibilidades.

Las normas comportamentales del maestro constituyen el pilar del entendimiento para que exista interacción e integración; así debe estar dispuesto a destacar su accionar humano de forma humilde y sencilla, demostrando su iniciativa, competencia y dedicación a la enseñanza, actitud que favorecerá la tarea educativa. Necesario es conceptuar a los alumnos como seres delicados y valiosos que requieren calidad profesional, por lo que es el trabajo docente el tallador en la formación del educando.

La responsabilidad de ser auténtico profesor conduce a perfeccionarse constantemente en el aspecto técnico para actualizarse sobre su disciplina; en el profesional, para informarse de los avances didácticos; y en el social, para formar cada vez mejores ciudadanos.

En la época de crisis que afrontamos, corresponde desarrollar el espíritu de auto-critica, examinar situaciones conflictivas y reflexionar si se actuó bien o mal, ajustándose a las realidades humanas y sociales de los alumnos y de la institución en donde labora.
Crecer y hacer frente a los retos corresponde al maestro que batalla por la superación ciudadana y del entorno.  

(Adaptado de La Hora. Quito)

Preguntas:
1. Según el texto, el maestro debe ser:
   a) La única esperanza para la sociedad.
   b) Ejemplo de conducta a seguir.
   c) Objeto de observación social.
2. El autor del texto opina que la actitud del maestro hacia sus educandos:
   a) Debe adaptarse a la personalidad de cada uno.
   b) Influirá mucho en su vida personal.
   c) Debe basarse en la igualdad.
3. En opinión del autor del texto, la crisis de la sociedad impone que el maestro:
   a) Actue como juez de sus alumnos.
   b) Sepa adaptarse a las circunstancias.
   c) Sea capaz de batallar con sus alumnos.

APPENDIX B

Vorname:
Nachname:
Lesen Sie den folgenden Text und beantworten Sie die Fragen unter dem Text, indem Sie die richtige Antwort ankreuzen, je nach der Information im Text.

LA ÉTICA Y EL MAESTRO

En un momento de descomposición social por la pérdida de cánones de comportamiento que dan al traste con el cultivo de valores heredados del hogar y fortalecidos en el proceso educativo, surge un gran aliciente de esperanza al evocar la palabra maestro o maestra como símbolo de guía, orientador, formador, tallador de personalidades.

El conductor educativo tiene la obligación de formar a los educandos para el régimen democrático, plasmando mentalidades democráticas, repudiando los privilegios de clase con sentido de eminente respeto a todas. Al conceptuar la amplitud de su ética profesional es necesario destacar el compromiso de respetar a sus semejantes, a las generaciones herederas de un presente estructurado sobre la base de un pasado cultural. Las relaciones del quehacer ético del docente con la sociedad se ponen de manifiesto cada día, puesto que constituye el blanco de observación en el comportamiento social granjeándose la confianza sobre la base de su conducta como profesional y ciudadano, pues sus pasos, actos y opiniones son constantemente observados, fiscalizados y criticados,
por lo que debe imponer una conducta ejemplar para ser el espejo en el que se miren sus alumnos; por ello es el continuador directo de los padres de familia.

Con sobriedad, comedimiento y equilibrio debe manifiestarse siempre, con el cuidado de la faz afectiva de sus relaciones, así como de su presentación personal sin caer en el descuido del refinamiento, de la coquetería ni de la presentación impropia. Su vida profesional, pública y privada debe ser prototipo de la máxima confianza hoy y siempre, tanto en el seno familiar como en el de la sociedad. El establecimiento educativo al que se debe, tendrá de él lealtad y franquezca, con el objeto de confluir en el mismo objetivo, la educación del alumno.

Frente al grupo humano que se nos confía deben regir las buenas relaciones, la actitud de justicia y trato igualitario sin que exista el abuso de confianza por parte de ese grupo, con el que se pierde fuerza moral. Con equidad se deben establecer las diferencias individuales teniendo como base inteligencia, temperamento, formación y aspiraciones, sin demostrar preferencias ni diferencias que hieran susceptibilidades.

Las normas comportamentales del maestro constituyen el pilar del entendimiento para que exista interacción e integración; así debe estar dispuesto a destacar su accionar humano de forma humilde y sencilla, demostrando su iniciativa, competencia y dedicación a la enseñanza, actitud que favorecerá la tarea educativa. Necesario es conceptualizar a los alumnos como seres delicados y valiosos que requieren calidad profesional, por lo que es el trabajo docente el tallador en la formación del educando.

La responsabilidad de ser auténtico profesor conduce a perfeccionarse constantemente en el aspecto técnico para actualizarse sobre su disciplina; en el profesional, para informarse de los avances didácticos; y en el social, para formar cada vez mejores ciudadanos.

En la época de crisis que afrontamos, corresponde desarrollar el espíritu de auto-critica, examinar situaciones conflictivas y reflexionar si se actuó bien o mal, ajustándose a las realidades humanas y sociales de los alumnos y de la institución en donde labora. Crecer y hacer frente a los retos corresponde al maestro que batalla por la superación ciudadana y del entorno.

(Adaptado de La Hora. Quito)

Preguntas:

1. Según el texto, la descomposición social del momento:
   a) Provoca la destrucción de valores tradicionales.
   b) Fomenta el cultivo de valores.
   c) Genera la aparición de nuevos valores.

2. Para el autor al evocar la palabra maestro:
   a) Se genera gran cantidad de esperanza.
   b) Se pierde toda esperanza.
   c) Se incentiva la aparición de esperanza.
3. El texto defiende que el maestro además de guía, orientador y formador contribuye:
   a) Proteger la personalidad del alumno.
   b) A moldear la personalidad del alumno.
   c) A cambiar la personalidad del alumno.

4. El maestro forma a los alumnos:
   a) Respetando los privilegios de clase.
   b) Fomentando los privilegios de clase
   c) Rechazando los privilegios de clase.

5. El maestro, sobre la base de su conducta como profesional y ciudadano,: 
   a) Se gana la confianza de la sociedad.
   b) Cuestiona la confianza de la sociedad.
   c) Pierde la confianza de la sociedad.

6. El maestro debe manifestarse:
   a) Siempre con firmeza.
   b) Con moderación y sensatez.
   c) Con finura y elegancia.

7. Las diferencias individuales entre alumnos se deben establecer teniendo en cuenta:
   a) Sus esfuerzos por aprender en clase.
   b) Su conducta y buen comportamiento.
   c) Sus ambiciones y empeño.

8. El maestro en el desempeño de su tarea debe demostrar:
   a) Que es competente, hace bien su trabajo y que se consagra a la enseñanza.
   b) Que es competente, que se consagra a la enseñanza y que tiene recursos e ideas.
   c) Que es competente, que se consagra a la enseñanza y que es una buena persona.

9. El maestro tiene que juzgar sus actuaciones:
   a) De acuerdo a la realidad del alumno y de su centro de trabajo.
   b) Según su propia ética moral.
   c) Basándose en el código de conducta de su profesión.

10. Al maestro comprometido le corresponde:
    a) Cuidar del entorno.
    b) Trabajar para que sus alumnos crezcan bien.
    c) Asumir y trabajar para superar los desafíos de la sociedad y de sus alumnos.
APPENDIX C

Vorname:  
Nachname:  

dar al traste con = *etwas kaputtmachen*  
aliciente = *Anreiz*  
tallador = *Graveur, Schnitzer*  
repudiar = *verstoßen, ablehnen*  
granjarse = *gewinnen, etwas fur sich einnehmen*  
comedimiento = *Gemessenheit*  
aspiraciones = *Sehnen, Streben*  
iniciativa = *Anregung, Unternehmungsgeist*  
ajustarse = *sich anpassen*  
reto = *Herausforderung*

APPENDIX D

TP

Vorname:  
Nachname:  

- Gewinnen, etwas für sich einnehmen =  
- Herausforderung =  
- Etwas kaputtmachen =  
- Graveur, Schnitzer =  
- Sich anpassen =  
- Sehnen, Streben =  
- Anregung, Unternehmungsgeist =  
- Anreiz =  
- Gemessenheit =  
- Verstoßen, ablehnen =

Bitte beantworten Sie folgende Fragen:
1. ¿Alguna vez te has preparado para el DELE superior?
2. ¿Habías leído con anterioridad el texto aquí presentado, o habías trabajado con las palabras de la lista?
APPENDIX E

Vorname:  
Nachname:  
Dies ist eine Liste mit 10 spanischen Wörtern. Schreiben Sie bitte die Übersetzung ins Deutsche neben jedes Wort oder beschreiben Sie jedes Wort auf Spanisch.

• tallador =
• iniciativa =
• granjearse =
• repudiar =
• dar al traste con =
• aspiraciones =
• aliciente =
• reto =
• ajustarse =
• comedimiento =