



“Digging Deep”: Using the Task Involvement Load Hypothesis to analyse textbooks for vocabulary learning potential

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Abstract

In the process of vocabulary acquisition, the extent to which tasks require depth of processing, termed ‘task-induced involvement’ by Laufer and Hulstijn (2001), and the potential effects of this on subsequent vocabulary retention, deserve greater attention. Laufer and Hulstijn (2001) claim that when ‘need’, ‘search’ and ‘evaluation’ are required in order to complete a task, learners engage with words more deeply, thus optimizing potential for successful vocabulary retention. This study was designed to ascertain the extent to which tasks, in commonly used reading textbooks and integrated skills course books, induce ‘deep’ involvement with vocabulary, thus facilitating vocabulary retention. Tasks in 10 reading textbooks and 10 integrated skills course books were analysed in terms of the elements identified by Laufer and Hulstijn (2001). The results were then compared between the two types of textbooks in order to determine whether one is more effective than the other for vocabulary retention. The study found that the frequency of exposure to target vocabulary was insufficient for vocabulary acquisition. It was also found that many of the vocabulary activities investigated required little task-induced involvement, and more specifically, very few productive activities were found.

Keywords: *task-induced involvement, depth of processing, vocabulary acquisition, vocabulary retention, vocabulary learning*

INTRODUCTION

Learning and retaining vocabulary are inherent requirements in the acquisition of any language. Teachers and learners are rightly concerned with identifying and maximizing the potential effectiveness of learning tasks, in order to enhance the possibility of learning success. While a number of studies have investigated which tasks and conditions are more effective for vocabulary learning and retention (Eckerth and Tavakoli, 2012; Ellis and He, 1999; Folse, 2006; Huang, Eslami and Willson, 2012; Hulstijn and Laufer, 2001; Kim, 2011), to our knowledge no-one has analysed ESL textbooks to determine the extent to which they contain tasks and conditions which are effective

for vocabulary learning and retention. Clearly, it is not advisable for teachers to teach straight from a textbook (Harmer, 1998; Willis, 1996), rather it is better to supplement the material provided in textbooks and use activities provided in textbooks in different ways. On the other hand, to some extent instructors are at the whim of textbook publishers in that they are often required to use commercial textbooks or course books in the classroom.

Laufer and Hulstijn (2001) claim that when ‘need’, ‘search’ and ‘evaluation’ are required in order to complete a task, learners engage with words more deeply, thus optimizing potential for successful vocabulary retention. This Task-induced Involvement Load (TIL) Hypothesis has

been investigated and corroborated in several studies (e.g. Eckerth and Tavakoli, 2012; Folse, 2006; Keating, 2008; Kim, 2011; Laufer and Rozovski-Roitblat, 2011). The purpose of this study is to ascertain the extent to which tasks associated with vocabulary learning, in commonly used reading textbooks and integrated skills course books, induce 'deep' involvement with vocabulary, thus facilitating vocabulary retention.

Review of literature

Over time, in the field of SLA research, various hypotheses have been proposed about how languages are learnt. Two that have gained much attention are the 'Input Hypothesis' (Krashen, 1985) and the 'Output Hypothesis' (Swain, 1995). The 'Input Hypothesis' claims that the fundamental requirement to acquire language is input at the right level, whereas the 'Output Hypothesis' states that 'pushed output' is required for acquisition to take place. These competing theories have prompted not a little debate about how languages are learnt. More recently, Ellis and He (1999) investigated the effect of modified input and modified output on vocabulary learning and found that the output group scored significantly higher on measures of comprehension, vocabulary recognition and vocabulary production than the input group.

In a similar vein, Laufer and Hulstijn's (2001) hypothesis draws on earlier work, indicating that attention to new words and elaboration on semantic features promotes vocabulary retention. Likewise, a study by Craik and Lockhart (1972), suggests that 'depth of processing' is essential to learning, and others such as Ellis (1994) and Schmidt (2000), underscore the importance of 'attention' and 'noticing' to both implicit and explicit learning. Laufer and Hulstijn (2001) proposed the 'TIL Hypothesis' as a way to address a perceived lack of clearly operationalised constructs relating to 'deep'

processing, including 'noticing', 'elaboration', 'motivation' and 'need'.

Laufer and Hulstijn's (2001) hypothesis suggested that vocabulary acquisition and retention is correlated to the amount and depth of cognitive processing undertaken when the word is learnt. The three factors that they determine to correspond to 'deep' involvement with vocabulary are 'need', 'search' and 'evaluation'. According to Laufer and Hulstijn (2001) 'need' is *strong* when it is intrinsic, *moderate* when it is imposed by the teacher or the task and *absent* when it would be possible for the student to skip over the word and still successfully complete the task. 'Search' is *present* when the task involves searching for a word or meaning outside of the textbook (e.g. in a dictionary) and *absent* when the meaning of the word is given in the reading text or within the textbook (e.g. in a marginal gloss). 'Evaluation' is *strong* when it involves using the word in an original context (as this involves evaluation of the word in terms of a range of considerations such as collocations and grammatical form), *moderate* when it involves deciding which word from a list of words to use, or which of the word's various meanings is intended in a particular context and *absent* when no evaluation is required.

The TIL hypothesis has been empirically tested and substantiated almost without exception. The first evidence to support the theory came from Hulstijn and Laufer (2001) themselves. In their study, three groups of students carried out different tasks and were later tested on the new vocabulary which appeared in the tasks. The first group read a passage with the target words glossed in the margin and then answered comprehension questions. The second group completed a gap-fill activity using the same text, and then answered the same comprehension questions. The third group wrote a letter using the target words. Students in the third group scored significantly higher on the vocabu-

lary test than the other two groups. Similarly, Keating (2008) compared three vocabulary learning tasks and found that writing sentences using the target words was the most effective, followed by reading and completing a gap-fill and finally, reading alone.

Folse (2006) addressed the idea that vocabulary retention is higher when students do writing tasks after reading and investigated which types of writing tasks are more effective. He compared three groups. The first group read and completed a gap-fill activity. The second group read and did three different gap-fill activities. The third group wrote an original sentence for each word. The second group significantly outperformed both the first and third groups. Folse concluded that the involvement load does hold true but that the frequency of encountering words is more important for vocabulary retention.

Eckerth and Tavakoli (2012) also addressed the question of whether frequency of exposure or task involvement load was more important. They found that both frequency of exposure and task involvement load impact on vocabulary learning and retention. However, in contrast to the findings of Folse (2006), their study found that task involvement load is more important than frequency of exposure to new words. Laufer and Rozovski-Roitblat (2011) demonstrated that 'depth' of processing and the frequency of appearance of target vocabulary within texts, tasks, and a combination of the two (as elaborated by the 'need', 'search', 'evaluation' constructs) are *both* important to retention.

Based on previous research, Kim (2011) proposed that there may exist a hierarchy of task involvement load factors and that for vocabulary acquisition, 'evaluation' may be the most important factor. In her study she compared three groups holding the 'need' and 'search' elements constant between groups and manipulating the amount of 'evaluation' involved. All

three groups involved moderate 'need' and no 'search'. The first group carried out a reading task which involved no 'evaluation'. The task of the second group (gap-fill) called for moderate 'evaluation' and the third group's task (writing) engendered strong 'evaluation'. Like her predecessors, Kim found that the third group showed significantly higher gains than the first two groups, both in terms of vocabulary acquisition and vocabulary retention. In another study, Kim (2011) also found that there was no difference in these results for learners at different proficiency levels.

Finally, Huang, Eslami and Willson (2012) conducted a meta-analysis of research on vocabulary learning and established a hierarchy of tasks. They found that sentence-level writing is less effective than whole text composition and tasks which involve only filling in gaps are the least effective of all. These findings strongly support the Task Involvement Load Hypothesis. They also found that more time spent on task led to more vocabulary learning.

There is some controversy surrounding the use of glossing to contribute to vocabulary acquisition and retention. While glossing can be seen as favourable, in the sense that it may lead to increased 'noticing', depending on the purpose for which it is used, glossing may also detract from vocabulary acquisition and retention (Rott, 2007). Indeed, Hulstijn, Hollander and Greidanus (1996) found that words that were looked up in the dictionary were better retained than words which were glossed. Indeed, in proposing the Task Involvement Load hypothesis, Laufer and Hulstijn (2001) evaluated activities which included glosses of the target words as not requiring search, whereas activities without glosses were evaluated as requiring search (p. 18). Overall, it appears that for easier immediate comprehension of a reading text glossing seems helpful, while for the purposes of long-term vocabulary

retention it appears not to be so, since it requires less effort on the part of a learner to search for and find meaning. However, more investigation is necessary, since there have been conflicting findings in studies to date.

In general, the literature shows that output tasks are superior to tasks which do not involve output, and that the number of times a word is encountered is crucially important to its retention. Moreover, the more effort learners need to put in to investigate words, the more likely they are to be acquired.

The study described here was conducted to ascertain the degree to which ESL reading texts and their associated vocabulary tasks, as found in commercial, integrated skills textbooks and academic reading skills course books, evidence frequency of appearance of and depth of involvement with target vocabulary. The quality of textbooks, which may be of considerable expense to learners and institutions, is naturally of keen interest to those who purchase them. Teachers and learners also need to know that the material they are using is most conducive to learning, and thus the investment of time and effort in the texts and tasks provided is likely to be productive. If the reading texts and vocabulary activities appear to be less useful than they could be, they may benefit from knowing which to choose and how to modify these in order to promote better quality learning.

METHODS

A convenience sample of 10 commercially produced, ESL (English as a Second Language), integrated skills textbooks, aimed at developing the four language skills, (reading, writing, speaking and listening) and 10 English language reading textbooks (commercially produced ESL textbooks with a specific reading skills focus), were selected for analysis. Integrated skills textbooks and reading course books were used because

learners usually learn to read in a second language either within an integrated-skills classroom or within a separate reading class and because vocabulary learning is usually associated with reading skills. The particular textbooks used in this study were selected because they are well-known, readily available and are commonly used in a wide range of ESL teaching contexts. All books selected were the most recent edition of the book, were published between 2005 and 2014 and are available through usual book distribution channels. Appendix A shows the 20 textbooks selected and analysed for the present study.

In order to make a fair comparison between the textbooks, it was decided to analyse the fifth reading text in each textbook. Although it would be ideal to analyse all vocabulary tasks in each of the 20 textbooks, such a comprehensive analysis was not possible within the given time constraints. Therefore, the analysis described in this study is intended to be cross-sectional in nature, providing a snapshot of the kinds of activities commonly found in commercially produced textbooks and their value for vocabulary learning and retention. Clearly, a more comprehensive study analyzing all tasks in a number of textbooks would be a valuable addition to the field.

For the purposes of this study, a 'reading text' was identified as a clearly defined body of written text with a recognisable theme, that had a heading or sub-heading, either within the unit or within the contents page of the book, indicating that it was a reading text. In addition to the reading text itself, all pre-reading tasks which focused on vocabulary, post-reading tasks which focused on vocabulary and review activities which focused on vocabulary were analysed. The reading texts, including their activities, were analysed in terms of the frequency of the target words in the text and activities, and the task involvement load invested by

learners if they read the text and complete all the activities.

Textbook analysis

Target words were extremely difficult to identify in many of the books. Some books had various vocabulary lists, for example; next to the text, at the end of the unit and at the end of the book, but in a number of the books different words appeared in each list. Other books had a list of 'target words' within the reading task for students to study, but the same words did not necessarily appear in any of the vocabulary activities. In fact, sometimes these words did not even appear in the reading text at all. Ultimately, for the purpose of consistency in this investigation it was decided to define target words as those which appear both in the reading text and in at least one of the pre-reading, post-reading or review activities.

Instances of each target word in the reading text and in the pre-reading, post-reading and review activities were counted by both researchers independently and the results were compared. When discrepancies were found, the item was recounted and discussed until agreement was reached. If the item did not appear in an activity, but needed to be supplied to complete the activity, it was also counted as an instance of the target word.

Each activity was evaluated by the researchers in terms of the extent to which it involved Laufer and Hulstijn's (2001) three factors: 'need', 'search' and 'evaluation'. 'Need' was evaluated on two levels, whereby a score of 0 indicated that the meaning of the word did not need to be known in order to complete the activity, while a score of 1 indicated that the meaning of the word needed to be understood in order to complete the activity. Strong need cannot be assessed by analyzing tasks, since this category relates to the learner's intrinsic motivation, not any quality evoked by the nature of a task.

Therefore, this category is not included in the analysis. 'Search' was evaluated on two levels, whereby a score of 0 indicated that the meaning of the word or a synonym was given in the activity, and 1 indicated that a learner would need to search for the word in their dictionary, or refer to another authority, such as a teacher, if they did not understand it. 'Evaluation' was established according to three levels, whereby a score of 0 indicated that it was clear which word was required, therefore no consideration of word choice was necessary, a score of 1 indicated that the word, or the meaning, needed to be compared with other options in order to choose the most appropriate one for the given context, while a score of 2 indicated that the word needed to be used in an original context of at least one sentence (as this involves evaluation of the word in terms of a range of considerations such as collocations and grammatical form). The template used for this analysis can be seen in Appendix B.

Each activity received a total score, based on the sum of these three individual scores, which could range from 0 to 4. In the same way as the evaluation of instances of target words, the researchers met and compared their scores for the Task Involvement Load of each activity. When discrepancies were found, the evaluations were discussed until agreement was reached. An example of a task which received a score of 0 can be seen in Appendix C, while an example of a spoken task which received a score of 4 can be seen in Appendix D, and an example of a written task which received a score of 4 can be seen in Appendix E.

Apart from vocabulary activities requiring varying amounts of task-induced involvement, whether or not target words are glossed affects the extent to which the process of reading a text requires involvement with the target vocabulary. For example, words which are glossed marginally do not need to be looked up in a dictionary and therefore, 'search' is absent.

Furthermore, dictionaries give all the various meanings of a word, whereas it is usual for glossaries to just provide the meaning which is intended in the text. Therefore, using a glossary rather than a dictionary can also detract from the need to ‘evaluate’ which meaning of a word is being used in the given context. In order to evaluate the extent to which task-induced involvement is required to comprehend the text, the presence or absence of marginal glosses of target vocabulary was also recorded.

Statistical analysis

Descriptive statistics were calculated in order to show the overall results of these analyses. One-way ANOVA was also conducted to determine whether there were any significant differences between the reading course books and the integrated skills textbooks. As mentioned earlier,

this was done in order to discover whether there was a tendency for one kind of book to have greater potential than the other for effective vocabulary learning. In many learning contexts integrated skills textbooks appear to be more commonly used than textbooks with a specific reading skills focus. This includes learning contexts where the goal is preparation for further academic study. Knowing which type of textbook is potentially more effective would be useful for teachers and learners when making decisions about the kinds of materials to use.

FINDINGS

Descriptive statistics for the frequency of the target words in the reading texts, associated vocabulary activities and the total frequency can be seen in Table 1.

Table 1. Average frequency of appearance of target words

Frequency	Integrated Skills Textbooks		Reading Textbooks	
	Mean	SD	Mean	SD
In text	1.1472	0.5082	2.5771	1.4706
In activities	1.1799	1.3054	1.8285	1.4115
Overall	2.3300	1.4110	4.4100	1.8230

Two integrated skills textbooks were determined not to have any target words for the unit, since there were no words that appeared both in the reading text and in an activity. These were essentially reading texts without any vocabulary focus at all.

Descriptive statistics for the number of vocabulary activities and the task involvement load of each vocabulary activity, as well as the total task involvement load on each word if all vocabulary activities are completed are shown in Table 2.

Table 2. Number of Vocabulary Activities and their Task Involvement Load (TIL)

	Integrated Skills Textbooks		Reading Textbooks	
	Mean	SD	Mean	SD
Number of activities	2.4000	2.2210	3.8000	2.8980
TIL of each activity	1.9917	1.5202	1.7124	0.7500
Total TIL on each word	2.9327	3.4649	3.0500	2.4293

The possible task involvement load values range from 0 to 4, with 4 representing moderate ‘need’, present ‘search’ and high ‘evaluation’, and therefore being the ideal score, the actual task involve-

ment load of each activity in these 20 textbooks also ranged from 0 to 4.

In terms of glossing, 16 books did not gloss target words. Of these 16, 10 (7 integrated skills course books and 3 read-

ing textbooks) did not contain glossing at all, while 6 (2 integrated skills course books and 4 reading textbooks) glossed words other than the target words. Two reading textbooks glossed some target words but not others (1 glossed 1 out of 15 target words, while the other glossed 9 out of 25 target words). One integrated skills textbook glossed all target words marginally and one reading textbook glossed all target words at the end of the book. Although glossing words marginally detracts from both 'search' and 'evaluation', since the word meanings are given directly alongside the text, glossing words at the end of the book would seem to require 'search', since learners need to actively search for the meaning of the words, but detract from 'evaluation', since glossaries usually only provide one meaning of the word (the one used in the text).

One-way ANOVA analysis between the integrated skills course books and the reading textbooks found a statistically significant difference between the frequency of target words in the text; $F(1) = 8.447$, $p = 0.009$, and overall; $F(1) = 8.132$, $p = 0.011$, but no significant difference between the frequency of appearance of the target words in vocabulary activities; $F(1) = 1.138$, $p = 0.300$. Furthermore, no significant difference was found between the task-involvement load required for each activity; $F(1) = 0.271$, $p = 0.609$, nor for the overall task-involvement load on each target word after all activities are completed; $F(1) = 0.008$, $p = 0.931$.

DISCUSSION

Alderson (2005), found that vocabulary accounts for 36-49% of variance in language performance and vocabulary has been found to account for at least 54% of variance in reading performance (Qian, 2002). Therefore, it is to be expected that reading textbooks would focus on vocabulary slightly more than integrated skills course books. However, based on these figures, it does not appear that the dis-

crepancy between the amount of focus on vocabulary in reading course books and integrated skills textbooks should be extreme. Two of the 20 reading units analysed in integrated skills textbooks had no vocabulary focus whatsoever and the difference in the frequency of appearance of the target words in the two different types of books analysed was highly significant. Given the effect of vocabulary knowledge on not only reading performance, but also language performance in general, it appears that integrated skills textbooks should include more focus on vocabulary.

The findings of this study suggest recommendations in three key areas; suggestions for ESL/EFL textbook, course book and materials writers, suggestions for teachers in the process of selecting and utilising commercial textbooks and course books for use in their classrooms, and finally, suggestions for helping learners to use these kinds of material effectively, particularly when working independently.

Materials writers

Firstly, it was found that some textbooks do not always clearly identify target vocabulary. Therefore, teachers and learners are at a disadvantage when trying to identify words that ought to be learned. Tok (2010) found that teachers complained about textbooks without clear vocabulary lists or glossaries. In order to maximise vocabulary learning potential, materials writers are advised to identify the target words in each unit of work clearly and consistently. This can be done in a number of ways. Firstly, by providing a separate, obvious and easily accessible list of words. If the list is provided within each unit, rather than elsewhere (for example at the back of the book), this will increase the likelihood that teachers and learners will see it and use it.

Nation (2001) states that "high frequency words are so important that anything teachers and learners can do to

make sure they are learned is worth doing". By association, this advice applies to materials writers as well, since they are often the ones providing the key resources that teachers and learners use. Teaching and learning time is usually precious, and ought not to be spent on low frequency words that learners will encounter only rarely beyond the textbook. Therefore, 'off-list', low frequency words ought not to be included in target vocabulary lists, or focused on in activities.

While glossing of low frequency items may be of value, since it assists learners in overall comprehension of a reading text, the lessons learned from investigations into the Task Involvement Load Hypothesis suggest that glossing of *target vocabulary* may actually diminish the likelihood of acquisition and retention, since it "...triggers the reader's need extrinsically and there is no intrinsically motivated search or evaluation processes" Rott (2007). As has already been mentioned, the value of glossing continues to be a matter for debate. Therefore, further research is needed in this area.

As also mentioned earlier, materials writers would do well to ensure they provide greater exposure to target vocabulary in text and activities overall (see Tinkham, 1993). The results of this study indicate that commercial textbooks do not appear to provide enough exposure to target vocabulary in either the reading texts or their associated tasks, and some had no vocabulary focus at all. Since the excessive recurrence of target vocabulary within the same reading text may seem 'unnatural' or impractical, materials writers should focus on developing greater exposure to target vocabulary within the activities associated with the reading text in order to overcome this problem. More activities, and activities that employ a higher rate of occurrence of target vocabulary would be useful, but again, not at the expense of natural use of the language. Similarly, a greater consistency of exposure of

all target vocabulary, would seem to be important.

Finally, and probably most important of all, materials writers clearly need to write activities that will increase students' cognitive involvement (Laufer & Hulstijn, 2001), considering the task involvement load of the activities they write. The study reveals that though there was a range of task types in the textbooks analysed, many tasks provided in commercial textbooks may not rank highly in terms of their potential to enhance vocabulary acquisition as measured by the Task Involvement Load criteria described here. While many tasks may be 'interesting' or 'entertaining, and may enhance the commercial prospects of a publication, their inclusion, at the expense of higher-ranking tasks, may undermine the goal of providing quality learning opportunities. Therefore, the textbook may be of less value to a learner than it could have been. To elaborate, vocabulary activities should rate as highly as possible on the 'need', 'search', 'evaluation' scales so that learners are challenged to 'dig deep' for meaning, rather than simply completing activities that are largely mechanical, and offer demonstrably less learning potential, such as gap fills, or matching words to meanings.

This also means, that amongst a range of possible activities, some should always be provided that require the learner an opportunity for original production of the target vocabulary. As indicated by Ellis and He (1999), 'output' appears to significantly enhance the possibility of acquisition. Therefore, textbooks should provide more tasks which require original production of target vocabulary. Consequently, notes to teachers within course books and textbooks should clearly indicate the importance of prioritising these kinds of tasks over others. Moreover, if space in a to-be-published work is limited, the inclusion of production activities should receive the highest priority.

Teachers

Firstly, teachers need to be aware of the specific limitations of any commercially produced material used (Seifert, 2010). As the results of this study indicate, such material may not always contain clearly identified target vocabulary and/or activities that require learners to engage in deep processing (i.e. activities which require the three elements of 'need', 'search' and 'evaluation'). While more comprehensive textbook investigation is warranted, the results of this study indicate, when purchasing or selecting texts to use in the classroom, teachers should take time to analyse the material and identify that which best promotes learning according to the features identified and described here. In particular, they should notice whether activities simply require learners to complete mechanical tasks, or encourage learners to 'dig deep' for meaning.

Since target vocabulary may not always be clearly identified in the reading texts and learning tasks provided in commercial EFL publications, teachers may find it necessary to modify reading texts and associated activities, and identify those words that they know their learners most need to acquire (see Brown & Ruegg, in press). Simultaneously, they should ensure that learners are provided with a clearly identifiable list of level-appropriate target vocabulary for each unit of work. Explaining the importance of high frequency vocabulary will heighten a learner's sense of 'need' to learn the words that are presented, since the usefulness of these words can be recognised as going beyond the immediate texts and tasks they meet in any given unit of work to other learning and 'real-life' contexts.

Learners

Finally, learners themselves, if armed with appropriate information and strategies, can be trained to identify target vocabulary for themselves (Yamada,

2018). Provision of appropriate word lists, and access to appropriate additional information about the word lists, along with an understanding of the rationale behind the importance of focusing on these words, will enable learners to select appropriate material for themselves. Likewise, within the texts and tasks they choose, they will become better able to identify those words that are most important for them to know, which tasks are most likely to lead to learning and when they need to supplement these with other activities.

Being informed about the value of digging deep for meaning will also enable learners to have greater understanding of the benefit to be gained from using the target vocabulary in speaking and writing production activities. Armed with this insight, it is hoped that they would then be less likely to avoid these more demanding tasks, in favour of less demanding or more mechanical tasks. Learners will also have an informed basis on which to choose material that will make best use of their limited time, along with concrete strategies that will enable them to create their own supplementary activities, if necessary, that will help to increase their vocabulary acquisition and retention.

CONCLUSIONS

As mentioned earlier, this study appears to be the first to analyse the potential of commercial ESL textbook reading texts and related vocabulary activities for vocabulary acquisition using the TIL theory and input from recent vocabulary acquisition studies. The findings here are limited to a narrow range of material sampled from each textbook, which may or may not be representative of the entire text. This fact makes it necessary to exercise caution if trying to extrapolate findings to an entire book in order to identify generalizable trends. However, the findings thus far, if typical, do indicate areas of concern, which hold implications for textbook design and use.

Vocabulary experts have suggested that it is necessary to encounter a word at least six times in order to learn and retain it (Tinkham, 1993), while some learners need up to 20 repetitions before they can retain the knowledge. However, the results of this study show that even if every activity in a unit is completed, if, on average, each target word is encountered only 3.4 times, it would appear that learners do not have enough exposure to target vocabulary. A future study, covering all units of the selected textbooks would more clearly ascertain target vocabulary frequency overall.

Furthermore, it would seem that not every instructor requires learners to complete every activity in every unit. Therefore, for many learners, the actual frequency of encountering each word in a unit is likely to be less than this. In all 20 units analysed for this study, only 19 target words appeared 6 times or more in the unit analysed and only 11 of the units (8 in reading textbooks and 3 in integrated skills course books) included a word 6 times or more.

Although the Task Involvement Load Hypothesis was proposed over a decade ago, and subsequently investigated and largely corroborated through research, it seems that both the reading texts and vocabulary activities in many textbooks are still not being designed in a way that requires learners to engage in the type of deep processing found to be as important to learning, by means of tasks that provide a high level of task-induced involvement. Of the 62 vocabulary-focused activities analysed for this study, three activities had a task involvement load of zero, meaning that no 'need', 'search' or 'evaluation' was present at all. A further eight activities had a task involvement load of just one. Moreover, although the literature shows that using words productively is the most effective activity for vocabulary learning and retention, only nine out of the 62 activities analysed required target

words to be used productively, and these productive activities were found in just six of the 20 textbooks. Further investigation is warranted, to determine the extent to which the texts and tasks provided in entire textbooks provide additional exposure to previously met target vocabulary. It appears likely, however, that the texts and tasks analysed this far are typical of those found in other sections of the same book. If this is so, there is justifiable cause for concern, since it appears that commercial textbooks may not be providing adequate or consistent exposure to target vocabulary, nor opportunities for the kind of deep processing required for that vocabulary to be acquired.

REFERENCES

- Alderson, J. (2005). *Diagnosing foreign language proficiency: The interface between learning and assessment*. Continuum.
- Anderson, J. (1995). *Cognitive Psychology and its Implications*. New York: Freeman.
- Baddeley, A. (1997). *Human Memory: Theory and Practice*. Hove: Psychology Press.
- Brown, C. & Ruegg, R. (in press). From woe to go: Using commercial textbooks more effectively for vocabulary acquisition and retention. *Akita International University Press Global Review*, 10.
- Coxhead, A. (2000). A new academic word list. *TESOL Quarterly*, 34(2): 213-238.
- Craik, F. & Lockhart, R. (1972). 'Levels of Processing: A framework for memory research.' *Journal of Verbal Learning and Verbal Behavior*, 11: 671-84.
- Eckerth, J. & Tavakoli, P. (2012). The effects of word exposure frequency and elaboration of word processing on incidental vocabulary acquisition through reading. *Language*

- Teaching Research*, 16(2): 227-252.
- Ellis, N. (1994). 'Consciousness in second language learning: Psychological perspectives on the role of conscious processes in vocabulary acquisition' in J. H. Hulstijn & R. Schmidt. (Eds.). *Consciousness in Second Language Learning*" *AILA Review*, 11: 37-56.
- Ellis, R. & He, X. (1999). The roles of modified input and output in the incidental acquisition of word meanings. *Studies in Second Language Acquisition*, 21: 285-301.
- Folse, K. (2006). The effect of type of written exercise on L2 vocabulary retention. *TESOL Quarterly*, 40(2): 273-293.
- Harmer, J. (1998). *How to teach English*. Harlow: Longman.
- Huang, S., Eslami, Z. & Willson, V. (2012). The effects of task involvement load on L2 incidental vocabulary learning: A meta-analytic study. *The Modern Language Journal*, 96(4): 544-557.
- Hulstijn, J., Hollander, M. & Greidanus, T. (1996). Incidental vocabulary learning by advanced foreign language learners: The influence of marginal glosses, dictionary use and reoccurrence of unknown words. *Modern Language Journal*, 80: 327-339.
- Hulstijn, J. & Laufer, B. (2001). Some empirical evidence for the involvement load hypothesis in vocabulary acquisition. *Language Learning*, 51(3): 539-558.
- Jacobs, G., Dufon, P. & Hong, C. F. (1994). L1 and L2 glosses in L2 Reading Passages: Their effectiveness for increasing comprehension and vocabulary knowledge. *Journal of Research in Reading*, 17: 19-28.
- Keating, G. (2008). 'Task Effectiveness and Word Learning in a Second language: The Involvement Load Hypothesis on Trial.' *Language Teaching Research*, 12: 365-368.
- Kim, Y. (2011). The role of task-induced involvement and learner proficiency in L2 vocabulary acquisition. *Language Learning*, 61(1): 100-140.
- Krashen, S. (1985). *The input hypothesis*. London: Longman.
- Laufer, B. & Rozovski-Roitblat, B. (2011). Incidental vocabulary acquisition: The effects of task type, word occurrence and their combination. *Language Teaching Research*, 15: 391-411.
- Laufer, B. & Hulstijn, J. (2001). Incidental vocabulary acquisition in a second language. *Applied Linguistics*, 22(1): 1-26.
- Nation, I. S. P. (2001). *Learning Vocabulary in Another Language*. Cambridge: Cambridge University Press
- Qian, D. (2002). Investigating the relationship between vocabulary knowledge and academic reading performance: An assessment perspective. *Language Learning*, 52: 513-536.
- Rott, S. (2007). 'The Effect of Frequency of Input-Enhancements on Word learning and Text Comprehension.' *Language Learning*, 57(2): 165-199.
- Schmidt, R. (2000). 'Attention' in P Robinson (ed.) *Cognition and Second Language Instruction*. Cambridge: Cambridge University Press.
- Seifert, K. (2010). Students' priorities as authors of their own text about Educational Psychology. *Teaching Educational Psychology*, 6(1), 1-19.
- Swain, M. (1995). Three functions of output in second language learning. In Cook, G. & Seidhofer, B. (Eds.). *Principles and practices in the study of language* (pp. 125-

- 144). Oxford: Oxford University Press.
- Tinkham, T. (1993), The effect of semantic clustering on the learning of second language vocabulary. *System*, 21: 371-380.
- Tok, H. (2010). TEFL textbook evaluation: From teachers' perspectives. *Educational Research and Reviews*, 5(9), 508-517.
- West, M. (1953). *A general service list of English words*. London: Longman, Green and Co.
- Willis, J. (1996). *A framework for task-based learning*. Harlow: Longman.
- Yamada, H. (2018). Exploring the Effects of Metacognitive Strategies on Vocabulary Learning of Japanese Junior High School Students. *The Journal of AsiaTEFL*, 15(4), 931-944.