

Pilot Study: Exploring Vocabulary Storage for Secondary ESOL Students

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Jan Kitto and Jan McKeogh

ABSTRACT

There are too many words in a language, and students' needs are too diverse for the teacher to assume the main responsibility for the input of vocabulary.

This study investigates vocabulary storage techniques for second language learners at the secondary school level. Two teacher-directed methods were introduced and compared with a third method of the students' own choice. In more explicit terms, the study comprised developing a vocabulary programme in which vocabulary storage strategies were explored and developed.

We know that students need a method of learning and remembering new words that works for them. We found that the type of method does not seem to be important but what is important is that some method or other is in place.

BACKGROUND

ESOL students need to know the lexis of language. They need to learn what words mean and how they are used. This involves giving them the names for things (for example, table, chair), and showing them how words are stretched and twisted such as to 'table' a motion, or to 'chair' a meeting. As Carter (2001, p 46), concludes in his study on ELT lexicography:

Vocabulary teaching and learning is central to the theory and practice of ELT. Words have a central place in culture, and learning words is seen by many as the main task (and obstacle) in learning another language.

Language studies for ESOL secondary school students are generally orientated towards particular fields of discourse according to the mainstream studies they are pursuing. In a language school or in a secondary ESOL class, the teacher can look closely at the kind of vocabulary which is typical or related to that particular discourse or subject area, introduce examples of it into class, and have the students record it and 'learn' it following current teaching/learning methodology or practice. Lewis (1993), and many other researchers have established that identifying, organising and recording the most useful types of lexical items are vital to progress in language learning.

What happens however, in mainstream classes where secondary subjects are being taught? How do the ESOL students cope with the vocabulary workload? How do they manage with these new ideas of discourse? In most cases where the English language level of the students may be at an intermediate level or lower, they simply do not manage. As a result, the students' already limited vocabulary stays limited, and is never sufficiently developed to deal with the often highly technical, infrequently used

terms, met in the subject matter of their mainstream classes. Academic failure is common at this level, and even more so when and if the learner is confronted with the rigours of tertiary study. Recognition vocabularies of fluent readers (mostly native speakers) range from 10,000 words to 100,000 words (Nagey & Herman 1987). Recognition vocabularies of adult second language learners are far lower, ranging from 5,000 to 7,000 words (Singer 1981). ESOL secondary students may even be lower than this.

In such a situation, it is a huge undertaking for the ESOL teacher to cater for the needs of each individual. S/he cannot accompany the students to all mainstream classes and provide explicit guidance as what and how to learn. Teachers can however, help students gain greater control over their vocabulary building processes by teaching them specific learning strategies.

PURPOSE

For the purpose of this study we decided to focus on vocabulary storage strategies thus making the first step in setting up a well-organised and pedagogically sound programme. Taking one step back, however, we also wanted to know if learning vocabulary was considered a priority for students. If it was a priority then firstly – what did they usually do to develop their vocabulary knowledge and how did they gather information about what they were able to do. Secondly - what they did do with the storage techniques we introduced them to, and what they actually did when left to their own devices.

The questions therefore, that this study asks are:

What do ESOL high school students know about vocabulary storage strategies? Can they be taught? Are they successful? Will students use them independently?

LITERATURE REVIEW

Vocabulary Building Strategies

As Nation (2001), suggests, strategies for learning vocabulary are part of learning strategies. Schmitt, (1997), provides an overview of what is considered a strategy, and what attention is needed in learning and using them. As such, a strategy could be defined as involving choice, being complex, requiring knowledge, benefiting from training and most importantly, resulting in vocabulary learning and use.

Taxonomies of vocabulary learning strategies have been developed largely as a result of research into learners' strategy use, and have been organised around existing frameworks such as that developed by Schmitt which is based upon Oxford's social, memory, cognitive and metacognitive categories (1990). Other lists include those from Gu and Johnson (1996), and Williams (1985). Nation's taxonomy (2001), comprises three general groups of strategies; planning, sources and processes. These are further divided into types of strategies. This taxonomy is used as a guide for the purpose of this study.

Most vocabulary learning strategies can be included in all stages of vocabulary learning. Proponents of learner- based training have encouraged the idea of giving their students the tools and strategies to learn independently, and in the case of many ESOL students at the secondary school level, it offers them the skills to operate more successfully in mainstream classes. This independence also allows teachers to focus on other things. According to Nation (2001), skills of each student in which way they use these strategies can differ, thus training in their use, needs to be a planned part of their vocabulary development programme. This planning involves selecting certain strategies to focus on, deciding on time spent, making up a syllabus, and monitoring and giving feedback on their use.

One-way students can achieve their independence and an important part of any vocabulary development programme is for students to keep some system of vocabulary storage such as vocabulary cards, notebooks, semantic maps or personal lists. These do not replace other forms of vocabulary learning, such as wide reading, or explicit vocabulary tasks, but supplement them by focusing on a subset of words.

METHODOLOGY

According to Nation (2001), strategy use in students can be observed in several different ways:

- *What learners say they usually do*
- *What learners demonstrate they are able to do*
- *What learners say they did*
- *What learners actually do*

In this study a combination of these ways were used with the data being gathered primarily through questionnaires and pre/post vocabulary tests.

Questionnaires and interviews are amongst the most common research techniques used for asking people to report on themselves, their views, their interactions and their feelings. For this reason, the data generated is usually called introspective because it 'looks inward'. Although time consuming to prepare, questionnaires do save time especially if the researcher is dealing with large numbers of participants. However an interview does offer flexibility, and qualitative data collected from an interview can provide richness as compared to the data obtained through a questionnaire. Because there were 30 participants involved in this study, a questionnaire was considered more economical than interviewing each one.

The first questionnaire conducted at the beginning of the study comprised three sections related to the students' background, their knowledge and approach to learning vocabulary. The second questionnaire administered at completion of the data gathering, reviewed the vocabulary storage strategies used.

Vocabulary tests are used for diagnostic purposes, as short-term and long-term achievement tests, and to test students' proficiency. In this study a total of three pre and post multiple – choice vocabulary tests (thirty items each) were given for each storage strategy used. The purpose of these tests was primarily to measure short –

term achievement i.e. to see whether the learning of recently studied words had been enhanced through their use.

Setting

The participants in the study involved two groups of ESOL students at two different secondary schools. One group (Group A), comprised 15 predominantly Upper Intermediate Year 13 students who were studying English in preparation for Tertiary Study and IELTS, and the other (Group B), included 15 junior students (Year 10) whose English language was more at the intermediate/pre-intermediate level.

Nationalities of the two groups represented the typical spread found in South Island high school ESOL classes; Chinese, Korean, Malaysian and Japanese. There were also a few students from other countries such as India, Indonesia, The Philippines, Fiji, Hong Kong, Somalia, Thailand, Iran and Kurdistan. The ages of the students were for the most part comparable with the school level they were in, and there was an even mixture of males and females. Length of time in New Zealand varied from one to four years for Group A, and two months to four years for Group B. This was largely determined by their status as Permanent Residents or as International Fee-payers. Permanent Residents had generally been in New Zealand longer.

The reason for choosing two different schools and two different language and age levels was to provide collaborative research across two language and age levels, which would yield higher returns in terms of results and implications for the ESOL classroom.

Data gathering procedures

The main objective of the data collection was to gather data on vocabulary storage strategies as they were introduced and to provide introspection on students' knowledge and beliefs about their learning.

Data gathering procedures over nine weeks were as follows:

- ***Pre/post test questionnaire (beginning and end of study)***
- ***Pre/post vocabulary tests (every three weeks; one for each storage method used)***

For both groups, different reading materials were used, but the storage techniques were the same, as with the data collection and analysis. For Group A, vocabulary from a speed-reading programme was used, and for Group B, a complete book (*Shipwreck and Survival* by Diane Bull).

Details of the study were outlined and parental/participant approval was obtained. As each group's programme got underway, thirty items of vocabulary from each of the reading texts were pre - tested in multiple - choice format, and their scores noted.

The next step was to introduce the first of the two vocabulary storage methods - linear records (see appendix 1). Over the subsequent three weeks, ten items related to that week's reading were studied and recorded using this method, at the end of which the thirty words were tested again and scores noted. This cycle was repeated twice

Using mind maps (see appendix 2) was the second teacher directed method.

For the last cycle of three weeks, students were pre-taught the items in the same manner as previously, but were left to their own devices as to how they stored them.

Upon completion of these three cycles, students participated in a questionnaire and reviewed the storage methods used. Scores from the pre and post vocabulary tests were compared before and after the vocabulary had been pre-taught and recorded according to one of the three methods. Results were then compared across the three methods.

DATA ANALYSIS

What do ESOL high school students know about vocabulary storage strategies?

In the initial questionnaire Group A found learning vocabulary either 'so-so' or 'difficult' whereas most of Group B said 'so-so'. The majority of both groups 'sometimes' wrote down their new words; fewer said 'always' and 'mostly never'. The main storage method used by both groups was a 'special notebook' and the majority learnt their vocabulary 'sometimes'.

It is heartening to see that some attempt was being made by both groups to learn vocabulary with a special notebook and that students were generally aware of the need to store new words in some way. The trend towards the median 'sometimes' and 'so-so' would not be a surprise for ESOL teachers (or any classroom teacher for that matter) dealing with these groups of students, that is, teenagers.

Can vocabulary storage strategies be taught? Are they successful?

As already indicated earlier, both linear and mind map techniques were specifically taught by both teachers in a controlled classroom situation – Group A by their own ESOL teacher and Group B by a visiting ESOL teacher but with their own ESOL teacher present in the classroom.

Three weeks (1 hour per week for both groups) were given to both techniques and the activities were specifically taught to reinforce the vocabulary from each pre-test. The results are as follows:

GROUP A

A comparison of the results of the two methods from Group A shows that overall the linear approach was a little more successful than the mind map approach. However, the difference is not statistically significant.

TEST RESULTS	LINEAR			MIND MAP			OWN CHOICE		
NAME	PRE-TEST 1	POST-TEST 1		PRE-TEST 2	POST-TEST 2		PRE-TEST 3	POST-TEST 3	
Z	16	24	(+8)	abs	abs		16	22	(+6)
Y	9	16	(+7)	10	15	(+5)	11	2	(-9)
O	12	22	(+10)	6	12	(+6)	7	abs	
Yi	7	13	(+6)	5	16	(+11)	5	6	(+1)
X	13	18	(+5)	6	12	(+6)	7	8	(+1)
S	13	22	(+9)	8	12	(+4)	13	18	(+5)
I	14	22	(+8)	9	16	(+7)	6	19	(+13)
T	16	23	(+7)	15	25	(+10)	12	20	(+8)
K	abs	abs		7	11	(+4)	9	9	(0)
F	10	25	(+15)	3	14	(+11)	10	13	(+3)
Yo	10	20	(+10)	6	17	(+11)	11	19	(+8)
E	abs	abs		13	16	(+3)	abs	abs	
H	13	22	(+9)	15	abs		abs	abs	
Ko	10	15	(+5)	8	18	(+10)	10	18	(+8)
N	12	12	(0)	9	19	(+10)	12	15	(+3)
	Range = 0 -15 Mode = 7 Median = 7.5			Range = 3 -11 Mode = 6 Median = 7.2			Range = 0 -13 Mode = 0 -13 Median = 3.8		

GROUP B

The results from Group B show a significant difference between linear and mind maps – as can be seen, linear had the better post-test results. Interestingly, the second pre-test score for this group was much higher than the first pre-test score and yet the overall improvement was not.

TEST RESULTS	LINEAR			MIND MAP			OWN CHOICE		
NAME	PRE-TEST 1	POST-TEST 1		PRE-TEST 2	POST-TEST 2		PRE-TEST 3	POST-TEST 3	
K	12	19	(+7)	16	24	(+8)	9	abs	
A	9	15	(+6)	15	9	(-6)	5	5	(0)
Y	12	16	(+4)	18	abs		abs	21	
Kh	16	19	(+3)	22	25	(+3)	17	abs	
An	15	14	(-1)	21	26	(+5)	abs	16	
B	5	14	(+9)	18	16	(-2)	16	23	(+7)
C	5	11	(+6)	19	21	(+2)	abs	17	
V	19	23	(+4)	20	29	(+9)	19	25	(+6)
Ba	14	21	(+7)	20	24	(+4)	17	22	(+5)
Ai	15	abs		14	abs		abs	abs	
M	12	19	(+7)	19	28	(+9)	14	16	(+2)
R	8	24	(+16)	abs	28		13	19	(+6)
S	18	23	(+5)	21	23	(+2)	abs	abs	
J	9	18	(+9)	20	20	(0)	14	17	(+3)
Ju	12	27	(+15)	23	25	(+2)	20	25	(+5)
Su	14	22	(+8)	22	24	(+2)	abs	20	
Ma	15	14	(-1)	14	19	(+5)	10	12	(+2)
Ch	16	27	(+11)	22	28	(+6)	21	28	(+7)
Bi	14	19	(+5)	10	19	(+9)	18	20	(+2)
Ab	13	14	(+1)	16	21	(+5)	11	18	(+7)
Y	9	17	(+8)	10	16	(+6)	12	16	(+4)
F	9	20	(+11)	19	20	(+1)	17	24	(+7)
H	abs	23		16	25	(+9)	15	20	(+5)
	Range = 0 -16 Mode = 7 Median = 6.6			Range = 0 - 9 Mode = 4 - 5 Median = 7.2			Range = 0 - 7 Mode = 5 Median = 4.4		

DISCUSSION

1. *Linear versus Mind Map*

The two learning strategies are very different in style which makes direct comparison difficult. Because the majority of students in this study were Asian, the linear method would probably be more similar to the teaching culture they were used to in their own country. Mind maps require more creativity and, therefore, may necessitate more specific teaching over a longer period.

However, Group A showed no significant preference for either method whereas Group B did. Why? Did the Group A teacher make a difference to this result? We do not know if the Year 13 class being older had more exposure to mind maps than the Year 10 class. Were the vocabulary related exercises presented with mind maps more effective with Group A than Group B? It was not possible within the scope of this research to account for these variables.

2. *Own Choice*

There are some interesting results here. Group B improved between the pre and post tests by at least 2 words and at most by 7 words and this improvement was consistent. Group A, however, had a wider range of results. The worst score was -9 but the best was +13. Overall Group B improved more than Group A.

Will students use vocabulary storage strategies independently?

Group A seems to have slumped when left to their own devices rather than be teacher-directed. This does not auger well for their future university studies. However, we do not know how much other school work they had during this time which may have prevented them from performing better.

Group B on the other hand improved more using their own choice than they did with the mind maps but not as much as with the linear method. Every student in this group did improve though which was heartening. Is this younger age group more amenable to vocabulary learning? Do they already have better study habits?

3. *Second Questionnaire*

The majority of time spent by both groups learning vocabulary using linear records and mind maps was 30 minutes and both groups found these storage exercises either 'useful' or 'okay'. We can conclude, then, that both groups attempted to improve their vocabulary learning and were willing to do so.

When asked which storage method they liked best, Group A preferred the linear but were even across all three methods when asked which method they used for their mainstream class vocabulary. Group B, however, still had a strong preference for their own personal records such as special notebooks. A few liked the linear but overall most resorted back to their own means of vocabulary storage. This may have been because the researcher was not their regular ESOL teacher and, therefore, did not have the opportunity to reinforce any learning outside the 1 hour a week.

Group B on the other hand did show a shift away from their original storage method and adopted one of the new approaches. However, it did not improve their overall results in the third pre and post tests as has already been indicated.

IMPLICATIONS FOR ESOL TEACHERS

The impetus for this research was to gauge how ESOL students learn and store vocabulary and if specific teaching would significantly improve their learning and storage strategies. As ESOL teachers we know that ESOL students have the added stress of learning and remembering more and more vocabulary as they progress through the secondary system. We also know that students need a method of learning and remembering new words which works for them. This research shows that the type of method is not important but what is important is that some method or other is in place. It is, therefore, our contention that vocabulary storage methods need to be taught early right from Year 9 so that by Year 13, students have a personal learning and storage system in place which is workable.

Group B did perform better overall when given their own choice even though the majority did not opt for linear records or mind maps. There is scope here for further application of these methods across other subjects - not just in the ESOL class 1 hour a week.

Vocabulary learning is time consuming and laborious and if students can be taught to use the method of their choice efficiently, then we believe that this will greatly enhance their confidence as well as their literacy skills.

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Appendix 2: Vocabulary Mind Map

