

Teaching Vocabulary at the Upper Primary Levels with The Vocabulary Self-Selection Strategy

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Abstract

In this paper, the authors describe a classroom inquiry by a newly graduated English language teacher on the explicit teaching of vocabulary with one class of 40 pupils at the upper primary levels through the Vocabulary Self-Collection Strategy (VSS) (Haggard, 1982, 1986; Ruddell, 2008a). Findings from this inquiry reveal that the VSS strategy designed primarily for the development of vocabulary in academic or content areas in learners was also suitable for the learning of thematically-related words in fiction texts as well. In addition, it is argued that since the strategy was new to this class of pupils, prioritising word study skills over the identification of key words in a text is a useful primer to the use of the strategy. The article ends with the implications of the strategy implementation on the pupils, the teacher and her own classroom practice as an English language teacher.

Keywords: Teaching vocabulary, English language teaching at the upper primary levels, professional development for English language teachers, Vocabulary Self-Collection strategy

Introduction

One of the most frequent concerns that newly graduated English language teachers raise after they are assigned their first class of pupils at primary schools is the deficit vocabulary of their pupils. At the upper primary levels in Singapore, this concern is particularly worrying since upper primary pupils (11-12 year olds) have a short run of two years before they must be ready for a terminal and critical national placement examination that impacts their academic progress into secondary schools. Similar concerns have been raised particularly in the United States (Biancarosa & Snow, 2006; Graves & Watts-Taffe, 2008). As such, the

teaching of vocabulary for improved reading performance quickly becomes a priority for most teachers assigned to teach at these levels. In response, research into the relationship between vocabulary development and improved reading performance is a developed argument. In fact, Hirsch (2003) and Blachowicz & Fisher (2004, p. 66) point out that the “most articulated lines of research in literacy education describes the strong connection between readers’ vocabulary knowledge and their reading comprehension (National Reading Panel, 2000)”.

Yet, the teaching of word knowledge and vocabulary remains a challenge for teachers for three reasons, (a) a deficit of strategies for vocabulary instruction (Tompkins, 2010, p. 228) and (b) a lack of knowledge about vocabulary development, in particular, what constitutes needful vocabulary for pupils at any grade level (Blachowicz & Fisher, 2004, p. 69) and (c) the instructional frequency required for improvement (Blachowicz, Watts-Taffe & Fisher, 2005, p. 266).

The Teacher

The inquiry was conducted by a teacher has just graduated with a Bachelors of Arts (English Language) from the National Institute of Education in Singapore, majoring in the teaching of English language. Soon after graduation, she was employed to teach English language at the upper primary levels (ages 10-12 years) in a local school in Singapore where she had a stint of five weeks of teaching practice and ten weeks of practicum as a student teacher. While the school is not new to her, the pupils in her newly assigned classes were.

She was assigned to teach English to the best academic class at the upper primary levels and asked to improve their reading and writing performance. She observed that the most critical area of need for this class of pupils, however, was their limited vocabulary. After discussion with the mentors in her school, she was of the view that this class needed more focused and explicit instruction (Nation, 2015; Ruddell, 2008b).

Her inquiry began with an examination of her own beliefs about vocabulary instruction before she addressed her own knowledge of vocabulary strategies, particularly the strategies she could use. This article aims to describe her inquiry as a newly graduated English language teacher who sought to improve the vocabulary levels of a recently assigned class of upper primary pupils through the use of a particular vocabulary strategy, the Vocabulary Self-Collection strategy (Haggard, 1982, 1986; Ruddell, 1992).

Literature Review

Vocabulary Self-Collection Strategy

The Vocabulary Self-Collection or VSS strategy (Haggard, 1982, 1986; Ruddell, 1992) is primarily used for schema development in content areas and is described as “a cooperative structure that provides practice in identifying important terms and using context to predict meaning” (Manzo, Manzo, & Thomas, 2005, pp. 174-175). Ruddell (2008a, p. 171) explains that VSS specifically addresses “content words that students need to know, words that are important to them and about which they expressed interest and curiosity in”. Manzo

et. al. (2005, p. 175) add that the VSS is usually introduced after pupils have read the text but that its ultimate goal is to teach pupils “to identify essential key terms as they read and to access suitable sources - from context to dictionary and other people, in order to derive meaningful definitions”. Through the strategy, pupils are taught not only word skills but also develop strategies to unlock key words in a text that will give them access to content knowledge in the text.

Ruddell (2008a, p. 171) further explains that it is “an instructional strategy intende

to foster long-term acquisition and development of the vocabulary of academic disciplines". In order for this to occur, Ruddell (2008b, p. 152) advises that vocabulary knowledge must "connect" with tasks, assignments, topics, themes and the prior and background knowledge of pupils' experiences, interests and knowledge. This integration, deliberately fostered by the teacher, makes for "effective vocabulary instruction" (Nagy, 1988). Ruddell (2008a, p. 176) concludes, however, pointing out that "without these planned opportunities that push students to use new content vocabulary", it is unlikely that pupils' vocabulary knowledge will improve. The research so far informs of two critical aspects about the strategy that are salient and they are (a) that it is primarily a strategy to develop vocabulary for academic and content area vocabulary and (b) that it is best paired with planned tasks that "push" (Ruddell, 2008a, p. 176) pupils to use newly learnt vocabulary. VSS was then assessed to be potentially suitable to meet the needs of this class of pupils for two reasons. Firstly, the national curriculum for English language at the primary levels in Singapore is organized around a centralized list of themes and genres (Ministry of Education, 2000), similar to the organization of curriculum for content area learning. Secondly, early research by Tinkham (1997), cited in Nation (2000, p. 7) further encouraged the choice since it was found that "thematically related set [of words] was easier to learn".

The instructional procedure for VSS begins with the individual student identifying a word or words in a text and explaining to the class the reason for her choice. As argued by Haggard (1980) and

more recently by Harmon, Hedrick, Wood & Kress (2005, p. 315), this is a significant step in the instructional sequence as there is a "strong correlation between [student] choice and the development of intrinsic motivation" to learn new words. Once pupils in the class develop a list, the list is scaled and pupils select words that they wish to study. The VSS strategy has since been employed with different age groups (Ruddell & Shearer, 2002) and in different classroom contexts (Fisher, Blachowicz, & Smith, 1991) as a means of intrinsically motivating learners to build academic and specialized vocabulary (Tompkins, 2010) that will give them access to reading more challenging texts.

The VSS Strategy in CL Settings

Modifications to the VSS instructional procedure has since been documented in literature to include its use with cooperative or group learning. Cooperative Learning (CL) as explained by Slavin (1995) is "a variety of teaching methods in which students work in small groups to help one another learn academic content. In cooperative classrooms, students are expected to help each other, to discuss issues and argue with each other, to assess each other's understanding of the topic, and fill in gaps in each other's learning". The use of VSS in cooperative learning contexts has been investigated by Fisher, Blachowicz, & Smith (1991) in the context of literature discussion groups where one student in each student group was assigned the role of a vocabulary researcher. As vocabulary researchers, the students in this role were required to identify five to six words and explain it to the rest of the group. Fisher et al. (1991) report that students in the roles of vocabulary researchers were able "to select

challenging words, derive acceptable meanings of the words, and learn new words". More recent research on the use of VSS in learner-oriented approaches direct our attention to the benefits of cooperative learning for vocabulary learning. Bilen & Tavail (2015, p. 153) explain that particularly for vocabulary learning in L2 and EFL contexts, the use of cooperative learning is helpful since "learners have difficulties in learning new vocabulary words" on their own. They further explain that the challenges learners face such as the use of dictionaries and the identification of definitions often lead "learners to memorize words". Group or cooperative learning, they add, provide learners with the support they need particularly with locating or even articulating definitions. As such, the review informs the inquiry in terms of its use in cooperative learning contexts.

The Use of Advance Organisers

Inclusive to the VSS procedure is the use of advance graphic organisers as support tools, particularly to assist learners with the study of identified words. Advance organisers, based on Ausubel's theory (1968), direct the attention of learners to important aspects of incoming material. Significantly, advance organisers make visible to learners critical aspects such as the overall structure of texts, relationships within new material explicit, and links between the known and new knowledge (Woolfolk, Winne, Perry & Shapka 2010; Schunk 2008). Certainly, the use of advance organisers in Singapore schools today is ubiquitous and based on empirical data alone, they have been found to be useful as support tools.

The range of advance organisers has also proliferated to include verbal

descriptions (Chuang & Liu, 2014); graphics (Tomlinson & McTighe, 2006), question scaffolds (Osman & Hannafin, 1994) and descriptions (Chung & Huang, 1998). For VSS, an advance organiser comprising 3 columns that require learner to indicate: (a) the word selected; (b) the reason for their choice and (c) the definition of the word usually accompanies the strategy. However, there are other advance organisers described in the literature on vocabulary learning that have been found to be useful as support tools with word learning. Esteves (2016) provides specific examples of advance organisers such as spider diagrams as vocabulary support tools to "help learners group words around a particular topic" and Venn diagrams as "tools for helping learners compare and contrast vocabulary". Word map advance organisers have also been proven as useful for in-depth word study (Graves & Watts-Taffe, 2008), a critical finding from Beck, McKeown & Kucan (2002) that enables vocabulary development. As a category of advance organisers, word maps are visual organisers that guide the study of words by making visible the component parts of an in-depth study. For example, word maps require learners to locate the meanings of words, its associations, related words and its use in a sentence. More recent word maps allow for learners to illustrate the meaning as well by drawing. Research by Margosein, Pascarella & Pflaum (1982) found that in comparison to contextual learning of new words, word maps produced better gains in the development of learner vocabularies.

Overall, the review of literature suggests that VSS is a useful strategy for explicit development of learner vocabulary

and that implementation in cooperative learning contexts is possible. In addition, the use of word maps as support tools for the

study of words within the strategy is likely to enhance the learning of new words.

The Teaching-Learning Process

The Class

The class consisted of forty pupils (n=40) from middle-class, two income families. For most of the pupils, English is the language of the home in addition to the use of another language. This class of pupils is the top-performing class for the level (11 year olds) in terms of their scores in Mathematics and it was the school's desire that this beginning teacher improve their performance in reading and writing. Furthermore, teachers of this class were of the view that because most of the pupils were good at learning by rote, they performed fairly well in tests and examinations despite an acknowledgement that their vocabulary was indeed limited. Such observations have led this teacher to focusing on developing the word knowledge of the pupils.

The Text

For this lesson, a text was selected by the teacher to contextualise instruction (Ministry of Education, 2000) and to trial the VSS strategy. The text was selected to supplement prescribed texts already provided in the national curriculum (Ministry of Education, 2000) on the theme "Amazing Friendships". The text is a folktale or fable with a moral at the end and short enough for a focused lesson on vocabulary. The structure of the text was familiar to the pupils as the structure was typical of fables and primarily written from the perspective of the omniscient third person, similar to fables they have read before. The unfamiliar words offered instructional opportunities to expand and

augment the pupils' vocabulary particularly in terms of the theme of friendship and words to do with physical space or the environment. Finally, the text was suitable as a supplement because as a text type, it was different from the other texts as types already provided by the national curriculum.

In terms of readability, the text was found to be prescriptively suitable for 11 year olds with a score of 4.9 based on the Flesch-Kincaid Grade Level Test. A more discreet analysis of the text revealed that more than 90% of the words in the text were likely to be familiar to the pupils while the remaining residual 10% comprised words that were likely to be unfamiliar although relevant and suitable for instruction and word study.

The Lesson

The lesson planned was for pupils to investigate key words in the text related to the theme of friendship as content and schema knowledge and to words that relate to aspects of physical space since such words occurred in the text. The duration of the lesson planned was for one hour, requiring modifications to the VSS strategy and how it was to be used in the classroom. In addition, the teacher was assigned the class weeks before the mid-year examinations and a significant albeit subordinate priority for her was to ensure that the strategy selected would also hone the skills of inference and contextual clues that would be tested at the upcoming examinations.

a. Modifications to VSS

- i. Teacher-selected list of words

The lesson began with pupils reading the text, “The Foolish Friend”, extracted from the collection of the Panchatantra. Pupils were then put into five cooperative groups and assigned one word for study

The list of five key words was selected by the teacher for important reasons. First, and the idea of physical space. In addition, the teacher needed to ensure that the key words selected were words where meaning could be inferred from the context of the text since this was an ancillary but critical priority for her. However, Ruddell (2008b,

from a list of five words identified by the teacher from the text as shown below in Figure 1.

the words were identified around two categories, that is, the theme of friendship would be suitably supported to self-collect words in future lessons.

Word Maps

Typically, the VSS strategy does not include the use of word maps for word study. However, as this was the first time

for both the teacher and pupils with conducting word studies, the inclusion of word maps served as a useful scaffolding tool for both the teacher and pupils to structure the investigation process and report findings from their word studies. Furthermore, the word study maps allowed for more avenues to explore, refine and deepen their understanding of words more so than the advance organizer typically used with VSS.

The word map selected by the teacher required that pupils demonstrate word knowledge in these ways: (a) Quadrant 1: the meaning of the word in their own words; (b) Quadrant 2: a synonym of the word; (c) Quadrant 3: a sentence where the word is used and (d) Quadrant 4: a picture of the meaning of the word as they understood it. For this lesson, the following word map extracted from ReadingQuest.org (Figure 2) was employed to guide the pupils through their investigations.

In this lesson, the first trench of explicit or “deliberate input” (Nation, 2015, p. 140)

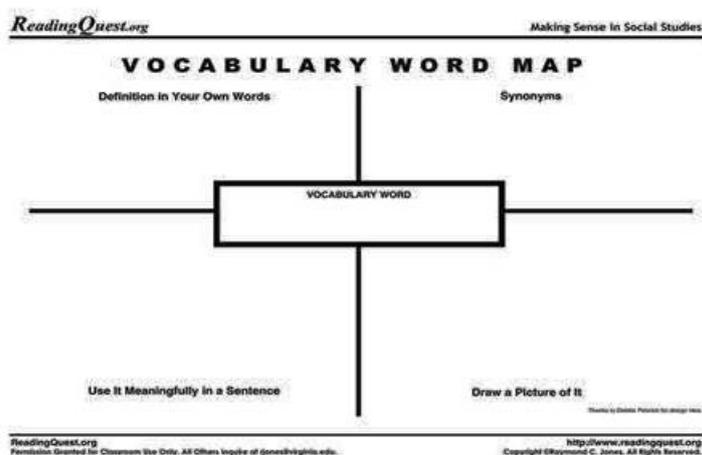


Figure 2: Word Map from ReadingQuest.org

p. 242) explains that a key characteristic of the VSS strategy is for pupils to identify the key words in a text based on the words pupils wish to “include in their own personal vocabulary lists” (Ruddell, 2008b, p. 172). By modifying this initial step of the procedure, it was acknowledged by the teacher that this first lesson on vocabulary learning was more prescriptive and teacher-directed than the teacher would have liked. However, as the teacher was of the view that this was their first explicit lesson on vocabulary, by thinking aloud the reasons for teacher-selection of the words, pupils

Explicit Language Input

by the teacher was at the initial stage of the lesson and took the form of familiarizing pupils with the different quadrants of the Word Map (Figure 2) that they were to use. Examples were given at this stage to delineate the extent of detail they were to pursue when demonstrating their understanding of each word in three quadrants of the word map except for quadrant 4 that required that they demonstrate understanding by drawing a picture of its meaning.

A second trench of explicit language input was provided by the teacher after pupils presented their maps to the class, to discuss, confirm and consolidate their learning of each word. This allowed the entire class to learn from groups who were assigned different words to study. As the pupils listened to the presentations by the other groups, they took note of the words and their meanings in their daily writing books.

Researchers in VSS (Blachowicz, Watts-Taffe & Fisher, 2005; Ruddell, 2008a) state that a significant step of the VSS procedure is when pupils present and share their word studies with the class. However, this aspect was modified by the teacher such that each group only presented three quadrants of their word maps, that is, (a) the meaning of the word in their own words, (b) its synonym and (c) an example of a sentence with the word. The teacher chose to personally assess quadrant 4 in order to determine with the change of modality (Graves & Watts-Taffe, 2008) the depth of word learning.

- i. Use of dictionaries

Another significant modification made to the VSS procedure was not to allow pupils to use dictionaries and other word bank repositories to investigate the meaning

of words as advised (Blachowicz et. al., 2005; Pikulski & Templeton, 2004). The teacher did not allow the pupils to use any of these supports in order (a) to hone the skill of inferring meaning through contextual clues and (b) to replicate examination conditions where pupils will not have such supports.

Modifications to the VSS strategy was largely made in terms of removing challenges to its implementation provided either by the profile of the pupils or by incorporating examination conditions. To that end, the modifications were rationalized in order to achieve learning outcomes beyond the goals of the strategy.

First, the strategy situated pupils as *active investigators of words*, a role that these pupils were not at all familiar with until this lesson. Second, it helped pupils derive the most accurate meaning of the words from the context in the text without the use of dictionaries. It was anticipated that the words studied would also similarly be limited to the context in the text. Furthermore, it required pupils to examine contextual clues carefully in order to infer the meaning of the words. Manzo et.al. (2005, pp. 174-175) in particular highlighted the significance of context in helping pupils predict the meaning of words. They argue that by inferring meaning from the context, this taps on the prior knowledge of meanings and is beneficial for the teacher as a means of assessing pupil learning for future lessons. In terms of the implementation of the strategy, Ruddell (2008, p.152) confirms this by stating that content vocabulary instruction is only effective when it relates to prior knowledge and background experiences which in this case, the pupils would have gained through literacy

activities with other texts to do with the theme of “Amazing Friendships”. Finally, it allowed pupils to demonstrate their

understanding of the meaning of each word in different modalities, specifically writing and drawing.

Methods

For this inquiry, the teacher developed her own lesson and the teaching resources for the explicit teaching of vocabulary through VSS. Her lesson was discussed with the second author who served as a non-participant and observer in the implementation of her lesson. The role of the second author was to audit instructional intentions, its relatedness to the unit of work from the national curriculum and the structure of the lesson. These were achieved through discussions before and after the implementation of the lesson.

Word maps, produced by the pupils were collected and analysed to determine the kinds of words the pupils found easy to demonstrate and the extent of word knowledge developed through the use of the strategy. To achieve this, each quadrant of the map was comparatively analysed for

similarities and differences between the entries and with the text itself (Ostovar & Malekpur, 2015, p. 240). Each quadrant of the word map was analysed for a distinctive linguistic or semantic feature as indicators of how well each word was understood, learnt and the extent that each word was used in another context. The indicators are: Quadrant 1: linguistic flexibility (Nation, 2001); Quadrant 2: accuracy of meaning (Ansarin & Khojasteh, 2013, p. 17); Quadrant 3: similarity of contexts (Harmon, Martin, & Wood, 2010, p. 102) and Quadrant 4: pictorial representation (Blachowicz & Fisher, 2004, p. 267). The initial findings were discussed and finalised, particularly in respect to the implications of implementing the strategy in future lessons, and with respect to better understanding the needs of this class.

Findings

As an overview, the findings revealed that the pupils showed greater understanding of words related to the theme of friendship rather than with words to do with physical space.

Quadrant 1: The meaning of the Word in Their Own Words

The focus of analysis for entries in this quadrant was in terms of whether pupils demonstrated personalisation in the definitions of words. Ansarin & Khojasteh (2013, p. 8) describe personalization as “linking the newly learnt lexical items to a whole network of previously learnt words”. In this quadrant, there was linguistic variation in the way pupils explained the

meaning of words to do with the theme of friendship and physical space. For the words “exuded” and “shunned” that were related to the theme of friendship, the entries revealed shared understanding among pupils of the same group and little variation in terms of the way meaning was phrased. Analysis of the definitions revealed that pupils may have been challenged with phrasing meaning as definitions which is a significant writing skill that pupils need to learn. This provided instructional insight to the teacher in terms of the needs of her pupils. In addition, the most variation in terms of phrasing was found for the word “scorned”, the third word related to the

theme, where although a key word “strong” was used in all entries, phrasing of definitions were more personalised, as seen in Table 1.

For the words to do with physical space, the entries for the definition for the word “vicinity” showed that all definitions used key words “surrounding” and “place”. Variations to the phrasing of definitions

tended to be structural rather than semantic. However, entries for the word “arbor” revealed a greater sense of personalisation of meaning. To illustrate, one pupil used the phrase “man-made” to pointedly contrast it with the sense that arbors are “natural”. Entries for this set of words are presented as Table 2.

Table 1
Definition Quadrant for Words to do with the Theme of Friendship

Word: “Exuded”				
Entries	Definition in your own words			
C1, C2, C3	<i>Give out a certain smell</i>			
Word: “Shunned”				
Entries	Definition in your own words			
	D1	D2		
	To be avoided	To avoid something or somebody		
Word: “Scorned”				
Entries	Definition in your own words			
	E1	E2	E3	E4
	Strong feeling that someone or somebody is not good enough or stupid and scold that thing	A strong feeling that someone is not good enough	Strong negative feeling by the way you speak	Make fun of someone or laugh at someone in a rude way

Table 2
Definition Quadrant for Words to do with Physical Space

Word: "Vicinity"			
Entries	Definition in your own words		
	A1	A2	A3
	It is around or in the surrounding of a place	Somewhere that is in or surrounds a specific place	Somewhere that is in or surrounds a specific place
Word: "Arbor"			
Entries	Definition in your own words		
	B1	B2	B3
	Natural surrounding	A shelter in a garden	A natural surrounding, not man made

Quadrant 2: Synonym of the word

In this quadrant of the word map, it was agreed that accuracy in terms of word class was an important consideration in the analysis of entries and whether pupils used words that they had learnt from personal contexts or previous texts read, particularly

for the group of words related to the theme of friendship. Taking guidance from Nation's range of categories of related meanings (Nation, 2000, p. 7), the entries were ranked according to the Likert scale shown below.

Table 3
Related Meanings (Adapted from Nation, 2000)

Scale	Categories	Explanations
1	Unrelated or opposite word	The word has no meaning connection (e.g. <i>bread & foot</i>)
2	Partial response	The word has similar free associates (e.g. <i>dark & lamp</i>)
3	Free associate	The word relates to the other (e.g. <i>bed & sleep</i>)
4	Connotation	The word is not a synonym but close in meaning (e.g. <i>see & vision</i>)
5	Synonym or near synonym	The word has a similar meaning (e.g. <i>fast and rapid</i>)

Table 4
Synonym Quadrant for Words to do with the Theme of Friendship

Word	Synonym in Dictionary	Synonym in Entries	Related Meanings
Exuded	Expel	Produce	3
	Secrete		
Shunned	Avoid	Avoid	5
	Ignore		
	Reject	Rejected	5
	Snub		
	Keep clear of	Steer clear of	5
	Steer clear of		
Scorned	Mockery	Insulted	4
	Ridicule		
	Taunting	Scold	4
	Teasing		
	Jeering	Jeered	5
	Sarcasm		

However, entries for the words to do with physical space had an overall accuracy of 33.3% as seen in Table 5. Entries for the word “vicinity” were 50% accurate while only 25% of entries were accurate for the word “arbor”.

The entries were analysed based on their accuracy to the context of the text. The analysis of entries for the words to do with the theme of friendship showed an overall accuracy of 57.1% (see Table 4) with 100% accuracy for the word “shunned” and 66.6% accuracy for the word “scorned”. The

entries for the word “exuded” were free associates rather than synonyms.

The analysis showed that without the use of dictionaries and from the context alone, the pupils were able to provide synonyms or near synonyms for words to do with the theme than for physical space suggesting that words learnt around a theme allowed for “mental linkages” in the form of synonyms (Nunan, 2001, p. 185). And, the entries for words whose meaning could be sufficiently derived from context also showed a significant degree of success.

Table 5
Synonym Quadrant for Words to do with Physical Space

Word	Synonym in Dictionary	Synonym in Entries	Related Meanings
Vicinity	Environment	Outside	2
	Neighborhood		
Arbor	Proximity	Surrounding	5
	Surroundings		
	Alcove	Gardens	2
	Shelter	Shelter	5
	Cubbyhole	Bed	1
	Cubicle	Scene	1

Quadrant 3: A sentence with the word

Easterbrook (2013, p. 26) explains that consolidation-memory strategies which include placing a newly-learned word in a context and using it to create a new sentence actually contribute to deep learning of words. In this quadrant, entries were analysed in terms of whether pupils the one found in the text or whether they were able to personalize the meaning by generating sentences of the word in different contexts.

Entries for words to do with physical space revealed that pupils were able to use one of the words (“vicinity”) in personal contexts but not for the other word (“arbor”) (see Table 6). Two of three entries for the word “vicinity” showed that pupils could transfer the meaning to other contexts such as the swimming pool, neighbourhood and the shopping mall and revealed the use of prior knowledge. Only one entry re-used the context as found in the reading text. For the word “arbor” two entries were identical while the third was dissimilar. Two of the

entries showed that the pupil could use the word in a local context, the Botanic Gardens, while the third used the context as found in the reading generated sentences in a similar context to g text.

For the entries of the words to do with the theme of friendship, the analysis showed that pupils were able to apply prior and personal knowledge as well as make links with their background experience (see Table 7) for 7 out of 8 entries. Pupils who studied the word “exuded” provided two sentences each for the word, one to demonstrate its meaning in a negative sense and another in a positive sense, revealing deeper learning for this word than the other words. The context for the sentences for the word “shunned” were shared entries, that is, that of a rubbish collector and both entries for the word showed that the pupils could use the word in a different and more personal context. Finally, the sentences for the word “scorned” used four different contexts.

Overall, most of the entries showed that as seen in Table 7. pupils could use the word in another context

Table 6
Sentence Generation Quadrant for Words to do with Physical Space

Word	Sentence as in Text	Pupil #	Pupils' Sentence	Context in Text	Applied to Another Context
vicinity	In the vicinity of the palace, the king had a grove artfully planted with many trees of various sorts.	A1	There is a swimming pool in the vicinity of the neighbourhood.	Swimming pool	Yes
		A2	The garden is at the vicinity of the castle.	Garden	No
		A3	There is a shopping mall in the vicinity of the swimming pool.	Swimming pool	Yes
arbor	After pleasantly strolling through and observing the grove, he grew tired and said to his monkey, "I want to sleep a little while in this arbor of flowers. Take care that nothing disturbs me!"	B1	Jane sat in the arbor of flowers, smelling the faint smell of the flowers.	Garden	No
		B2 & B3	The arbor of flowers in the Botanic Gardens was like a rainbow, blinding everyone with its natural colour	Garden	No

Table 7
Sentence Generation Quadrant for Words to do with the Theme of Friendship

Word	Sentence as in Text	Pupil #	Pupils' Sentence	Context in Text	Applied to Another Context
exuded	Its blossoms exuded a magnificent fragrance, while swarms of bees sang praise to the god of love.	C1	The nearby flowers exuded a lingering fragrance, which me and my family enjoyed a lot.	Flowers	No
		C2	Every day, my naughty dog leaves a piece of faeces by my door, which exudes a revolting smell.	Waste	Yes
shunned	The monkey explained how it happened, but thereafter he was shunned and scorned by everyone.	D1	The rubbish collector was always shunned by other people.	Rubbish collector	Yes
		D2	Wherever the rubbish collector goes, he is always being shunned by others.	Rubbish collector	Yes
scorned	The monkey explained how it happened, but thereafter he was shunned and scorned by everyone.	E1	After dropping the plates multiple times, he was finally scorned by his boss and his colleagues.	Office	Yes
		E2	When John could not even answer the easy question, his classmates scorned him.	Classroom	Yes
		E3	After the teacher caught me cheating in the examination, she scorned me.	Examinations	Yes
		E4	Everyone scorned him as he got a '0' for the test.	Test	Yes

Quadrant 4: Draw the meaning of the word

When examining the drawings of the meaning of the words, the pupils seemed to demonstrate a greater sophistication of meaning than demonstrated in the other three quadrants.

For the words to do with physical space, such as the word “vicinity”, pupil A3’s entry demonstrated meaning through the use of arrows to make evident the meaning of proximal distance in a pointed manner. And, entries for the word “arbor” had a greater amount of detail particularly in terms of its context (see Table 8).

In analysing the drawings of words to do with the theme of friendship, the drawings showed a greater understanding of meaning through the use of speed lines to demonstrate effect and speech bubbles to demonstrate thought, motivation and emotion of characters as seen in Table 9.

Table 8
Picture Quadrant 4 Words about Physical Space

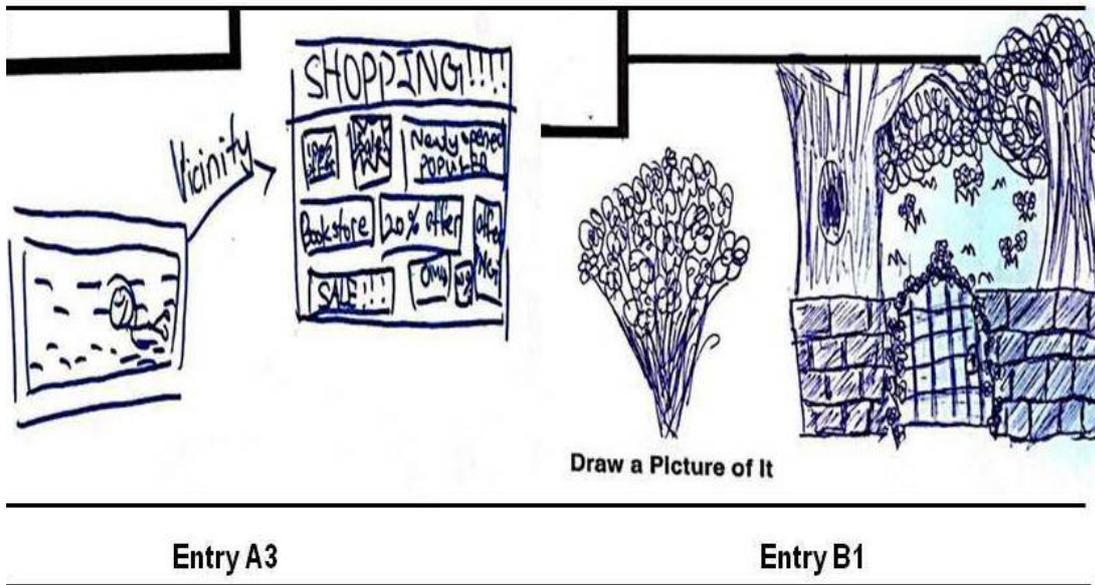
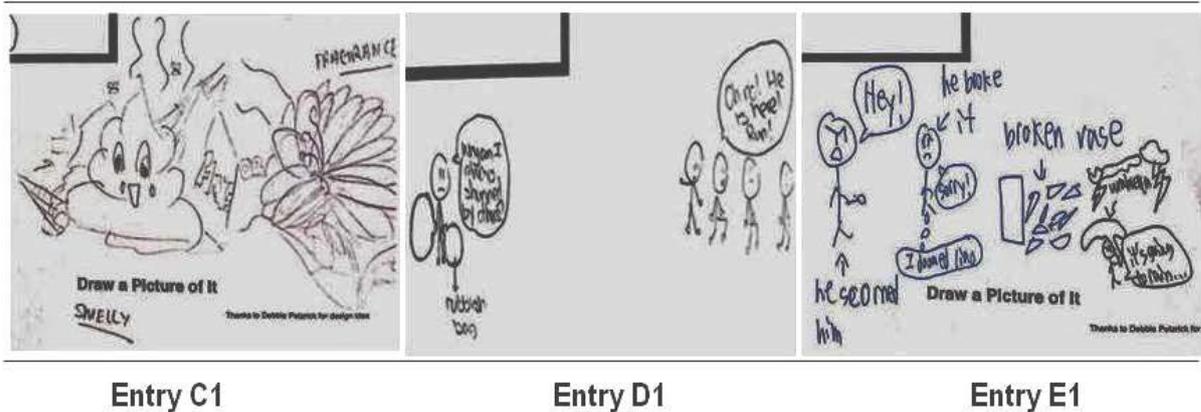


Table 9
Picture Quadrant for Words about the Theme of Friendship



Discussion

A Process Approach to Word Learning

One of the most challenging aspects of teaching English language in the classroom is to systematically develop the vocabulary of learners as they read, write, think and talk around different themes and genres because teachers have to identify the vocabulary that are critical to these themes. And, within a systemic functional framework of English language teaching (Halliday, 1975), vocabulary, like grammar, are the resources

that enable competence in the different language skills.

The findings from this inquiry revealed how focused attention, as suggested by research (Manzo et al., 2005; Nation, 2015), will help pupils “notice” (Schmidt, 1990) and learn the critical vocabulary that will help them become better readers and writers. They show that pupils’ overall understanding of words to do with the

theme of friendship and physical space improved as they worked through the different quadrants in a distinct order.

In terms of defining words, the entries showed that pupils may need to learn how to phrase definitions since pupils seemed to struggle with it for 2 out of the 3 words. However, for 3 of the words across the theme of friendship and physical space, the pupils showed variation and personalisation in explaining their meaning. In terms of providing a word of related meaning in quadrant two, the entries showed that all entries for the theme of friendship were either synonyms or near synonyms indicating that without the use of dictionaries pupils were able to make “mental linkages” (Nunan, 2001, p. 185) with other words around the same theme despite their struggle with defining meaning. For entries of words to do with

A Means of Assessment for Learning

The use of the VSS strategy as a strategy for in-depth word study and vocabulary development was useful for this beginning teacher for numerous reasons. First, there was sufficient structure to the strategy such that she could use it easily in the classroom. In addition, the use of word maps further structured and deepened the study of words. While the strategy was modified in response to the profile of the class and in accordance with examination conditions, the modifications allowed the teacher to investigate more deeply her initial hypothesis of her pupils’ vocabulary levels and the extent to which the goal of the VSS strategy could be maximised for learning. Secondly, the findings from the analysis of pupils’ work were easily computed for future planning of “push” (Ruddell, 2008a, p. 176) tasks for long-term learning. Tasks such as requiring pupils to write an

physical space, though, there was only a rate of 33.3% accuracy, confirming, as found by Tinkham (1997), that words around a theme are more easily learnt. Entries for quadrant 3 that required sentence generation showed that the majority of entries (3 out of 5 - physical space; 7 out of 8 - theme of friendship) were about more personalised contexts. And, finally because quadrant 4 required a change of modality, the drawings revealed a greater depth of meaning across words in both categories. Instructionally, what was notable across the words studied is that pupils’ understanding of meaning increased as they worked through each quadrant of the word map (Nation, 2005) in preparation of another. As such, the demonstration of meaning became more refined for most pupils as they progressed through the quadrants in the above order.

extended prose response to the text with the inclusion of the words studied were discussed as suitable for this class. Most immediately, the analysis of pupils’ word maps provided direction for her in terms of the word knowledge skills that pupils will need to learn and master for the impending examinations. Thirdly, the findings helped her deliberate more carefully on the selection of words for word study. As the strategy requires pupils to examine key words in the context of a text and its type, words that are heavily contextualised will only affirm the pupils in terms of their use of reading comprehension skills such as the skill of inference. And similarly, words that are lightly contextualised will pose much challenge to pupils and as such should be avoided if teachers wish for pupils to infer their meaning from contexts.

Instructional Frequency

Questions raised by this teacher at the start of this inquiry was in terms of the identification of needful vocabulary for pupils at any grade level and the instructional frequency required for pupils to make positive gains. The VSS strategy helped this teacher understand with greater depth the kinds of words pupils are likely to learn more quickly and the words that they will struggle with and the reasons for it. She

Representing Meaning in Different Modalities

Finally, this small inquiry attempts to build on the work of Nation (2005) who drew attention to the components of effective teacher input when introducing learners to new words. The different quadrants of the word maps suggest that when pupils are presented with different ways of representing the meaning of new words as information transfer activities, learning is clarified and therefore, deepened giving them confidence to use the word in

determined from their word maps that her pupils needed to learn how to write definitions, that they could elicit words of related meaning from other texts of similar theme and what could be done for those who were struggling with using new words in another context. She also suggested that for some, perhaps, the sequence of filling out the word map was an important factor.

more personalised contexts. Equally, pupil drawings offered her a bank of readily available authentic resources that she could use as authentic examples for more visual learners, bringing instruction closer to the needs of learners. Coupling word maps with VSS provided the pupils with opportunities to self-collect key words in a text and also examine them deeply for long-term retention.

Conclusion

This article described an inquiry conducted by a beginning English language teacher who embarked on improving the vocabulary of her newly assigned class of pupils through the use of the VSS strategy – a strategy for vocabulary learning of content areas. The inquiry sought to demonstrate how the VSS strategy was modified in various ways to better prepare the pupils for more rigorous vocabulary instruction for future lessons with the strategy. The examination of pupils' word maps produced in the inquiry served to help the teacher develop deeper understanding of her pupils, the implementation of the strategy and about vocabulary learning.

As an example of teacher-initiated classroom research based on an assessment of learner needs, this inquiry also demonstrated how research of this kind, small scale and needs-based, can be conducted by newly-graduated teachers to refine their own practice. The investigation was conducted after the teacher graduated where the need for small-scale inquiries that inform micro-levels of practice or understanding, missed perhaps at the stage of pre-service training, are valued most. As such, the inquiry also serves to offer an alternative view to classroom action research as a means of building subject content knowledge and refining the classroom practice of individual teachers early in their careers as teachers.

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