found that 98 percent text coverage is more reasonable (2011).

Applying this recent finding, this study examines how large a vocabulary is required to reach 98 percent text coverage by the BNC fourteen 1,000 word-family lists.

Results

How large a vocabulary is required for the written portion of the National Center Test?

The total tokens for the past 22 written tests were 70,896. Concerning the text coverage by the BNC 14,000 word-family lists, the first 1,000 word families accounted for 59,961 of the total running words. This made up 84.58 percent of the total tokens. The second 1,000 word families accounted for 5,321 tokens, or 7.51 percent. The third 1,000 word families accounted for 1,732 tokens, or 2.44 percent. The fourth 1,000 word families accounted for 763 tokens: 1.08 percent. The fifth 1,000 word families accounted for 406 tokens: 0.57 percent. There were also 1,625 proper nouns, equal to 2.29 percent.

From this result, if the proper nouns are easily understood from the context, using the comprehension criterion of 98% coverage, 5,000 word families are required, rather the approximately 3,000 suggested by the 95% coverage criterion.

How large a vocabulary is required for the listening portion of the National Center Test?

The total tokens for the six listening tests were 10,315. The first 1,000 word families accounted for 8,970 words, or 86.96 percent. The second 1,000 word families accounted for 637 words, or 6.18 percent. The third 1,000 word families accounted for 194 words, or 1.88 percent. The fourth 1,000 word families accounted for 130 words, or 1.26 percent. The fifth 1,000 word families accounted for 41 words, or 0.4 percent. There were also 141 proper nouns, equal to 1.37 percent. Assuming the proper nouns do not interfere with readers' comprehension, then approximately 5,000 word families are necessary to reach 98 percent text coverage.

Discussion

This finding implies that a series of textbooks for junior high and senior high school students might not provide sufficient vocabulary necessary for the NCT.

Chujo (2004) revealed that *New Horizon Series* and *Unicorn English Series*, the most widely used textbooks for junior high school students and advanced-level senior high school students, contain approximately 3,200 words. She also found that 3,100 to 3,200 words from her BNC lemmatized high frequency word list were required to reach 95 percent text coverage in the 2001 and 2002 NCTs (2004). Using these results, Chujo concluded that the NCT is appropriate for high school graduates in terms of the vocabulary level (2004).

The present study also confirmed that 3,000 word-families were necessary to reach 95 percent text coverage, however, as the recent research finding showed, 95 percent text coverage may not be sufficient to gain adequate comprehension (Schmitt, Jiang, & Grabe, 2011). Classroom practitioners should keep in mind that they need to supplement with another 2,000 word families, which may not be able to be acquired from textbooks, in order for high school students to prepare for the NCT.

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The four strands of vocabulary learning: Reaching a crossroads of practice and research

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Background

Nation (2007) proposes that the four strands of language learning for vocabulary be given roughly equal attention to optimize the learning of new words. The four strands include: meaning-focused input, meaning-focused output, language-focused learning, and fluency development. Recent research related to these four areas has pointed to a number of pedagogical implications that could be applied in the classroom.

Meaning-focused input

Acquiring new words from meaning-focused input refers to vocabulary learned incidentally through classroom activities involving reading and listening. Research in this area has shown that learners often fail to guess the meaning of new words correctly (Nassaji, 2003). Moreover, other studies (Waring & Takaki, 2003; Pigada & Schmitt, 2006) have found relatively low pick up rates for learning new words incidentally. For these reasons, Schmitt (2008)

maintains that the meaning-focused input strand is more conducive to consolidation of previous explicitly taught words rather than for acquiring new words.

Meaning-focused output

Meaning-focused output includes classroom tasks such as communicative activities and prepared writing. These tasks allow learners to use the words that they know productively. One study (Lee & Muncie, 2006) found that productive output tasks were more likely to lead to productive mastery than were receptive input tasks. This suggests that structured productive practice might have advantages for vocabulary acquisition in terms of active vocabulary.

Language-focused learning

The first 2,000 most frequent words in addition to the words on the Academic Word List merit intentional instruction due to the utility of knowing common and useful words (Nation, 2001). Furthermore, repeated, spaced exposures have been found to be an efficient means of direct teaching of vocabulary (de Groot, 2006). Taken together, consideration for word frequency and careful, spaced planning will increase the likelihood of learners to acquire the most needed words first.

Fluency development

It is difficult to understate the importance of recycling previously learned vocabulary. In fact, Nation (2001) goes as far as to say that consolidation is more important than learning new words because a forgotten word is a lost time investment. Furthermore, as working memory is limited and new semantic information can inhibit comprehension and fluency (Barcroft, 2002), reading easy graded readers or listening to easy passages eases the cognitive burden on working memory and allows for learners to further develop their automaticity, strengthen lexical access to existing words, and deepen their word knowledge. Schmitt (2008) notes that the form-meaning link is only the first step towards learning a new word, and fluency development is necessary in order to learn often overlooked aspects of work knowledge.

Aims

The current study examines self-reported teacher beliefs about teaching vocabulary and compares and contrasts those beliefs with pedagogical implications from recent research as it relates to the four strands in vocabulary learning.

Methods

22 English teaching faculty at a Japanese University in Kyushu were surveyed about their teacher beliefs with regards to vocabulary instruction. The four strands of learning as it relates to vocabulary (Nation, 2007) served as the framework for the survey design. Each strand was illustrated through example activities and techniques in case there were participants who were unfamiliar with the four strands. Participants were asked to rank from one to four each strand in order of most important to least important (see table 1 for more details). Furthermore, participants had to justify their ranking by explaining their most and least important ranking. Finally, participants were asked to explain what methods they used in the classroom to teach new vocabulary items. Participant responses included quantitative and qualitative data, the latter of which was coded and assigned categorically to correspond to one of the four strands.

Samples

Participants included both full-time and part-time lecturers of English at university level. Of the initial 22 respondents, responses from 17 were included in the final quantitative analysis. The remaining five were excluded because of misinterpretation of one or more survey items.

Results to date

As shown in Table 1, results indicated that participants favored language-focused learning the most and fluency development the least as part of classroom curriculum. 7 of the 17 respondents chose language-focused learning as their most favored strand and none of them ranked it as least favored. The strong preference for language focused learning stemmed in part from the respondents' belief in its efficiency for learning vocabulary.

Table 2 shows some examples of participant responses to the questionnaire. It can be seen that in addition to respondents citing faster vocabulary growth of the most relevant words as a result of teacher-led language focus, facility of evaluation as a result of testing pre-determined words, direct intervention for pronunciation issues, and teacher guided skills development as a means to push the learner towards autonomy were also mentioned.

Conversely, few respondents ranked fluency development first among the four strands. Only 2 of the 17 respondents ranked it as the most favored, but 10 ranked it as least favored. The most common explanation cited was that respondents felt fluency development, although important, was something that required little or no teacher guidance, and as a result, it was not viewed as a top priority for use of class time. However, one of the respondents who highly favored fluency development pointed out that most Japanese learners in the English courses have very shallow vocabulary depth knowledge and suggested that fluency development was the primary means through which to deepen knowledge of existing words in the lexicon.

Table 1
Number of respondents selecting "most important" and "least important" (*N*=17)

	Meaning-focused input	Language-focused learning	Meaning-focused output	Fluency development
"most important"	6	7	2	2
"least important"	4	0	3	10

Preliminary conclusion

Although Nation (2007) has suggested a balanced approach of roughly equal attention of all four strands of vocabulary learning in a language course, as a whole the respondents seemed to overemphasize language-focused learning at the expense of fluency development. Results from the data point to the belief that language-focused learning is a more efficient means of teaching, while fluency development is seen more as fine tuning, but not as a priority. These views are not completely surprising, as ESL and ELF textbooks and curriculum tend to ignore development of vocabulary depth knowledge, and usually only give explicit attention to meaning-form links of lexical items. Moreover, the preference for language-focused learning could represent a desire for a teacher-centered approach for explicit instruction of vocabulary as opposed to more of a facilitator role in the classroom.

Future work

Further investigation of specific practices and beliefs of teachers about vocabulary learning will be carried out. These include, but are not limited to: use of the L1-L2 translations in the classroom, L1-L2 vs. L2-L2 dictionary use, number of desired exposures for intentional learning, and balancing time resources for consolidation of old over acquiring of new vocabulary.

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Table 2

Examples of participant responses

Strand	Most Favored	Least Favored
Meaning-focused input	"Students often learn a lot more from seeing words in context." "I believe this provides the best opportunity for continued negotiation of meaning, and thus continual development, focus, and understanding of schemata, through well-understood, authentic, and rich contexts."	"Incidental learning (of words) is too slow." "Incidental learning takes time."
Meaning-focused output	"Language learning occurs best when used meaningfully in some form. Hearing or seeing a student's output makes checking easier simultaneously check whether the output is comprehensible."	"I often use writing activities because students can make their own connections of meaning. I also believe words should not be taught in lists, individually." "It seems generally accepted that receptive vocabulary is greater than productive, so forcing students to produce may be unnecessary. Also, by forcing production, teachers may force students into incorrect usage."
Language-focused learning	"Students are often assessed on vocabulary lists. Therefore, direct explicit attention to these words seems appropriate. Also, by teaching vocabulary strategies, students should be able to use the strategies in future vocabulary learning." "Explicit instruction is faster."	(no negative remarks for this category)
Fluency development	"The problem is that their knowledge of these words is very shallow."	"Once students are motivated to learn, they will have the desire to read more (and learn vocabulary) without forcing them." "Fluency development is important, but it should be focused on more outside of the classroom, during individual learning time." "Little time for this in class."

Searching for an acceptable false alarm maximum

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Background

Yes No (YN) receptive vocabulary tests, also referred to as checklist tests, are designed to measure the receptive lexical knowledge of test-takers (Meara & Buxton, 1987). In these tests participants self-assess their knowledge of items which are presented either in context free lists in paper versions, or one at a time in computerized versions. As explained in Stubbe (2012, p. 2):

One concern regarding this format is the problem of overestimation, where students signal knowledge of words they actually do not know the meaning of. To provide a means of checking for potential overestimation of word knowledge, pseudowords (non-real words) were added to the YN test format (Anderson & Freebody, 1983; Meara & Buxton, 1987). If a test-taker signals knowledge of a pseudoword, this is labeled a 'false alarm' and is interpreted as evidence of also falsely claiming knowledge of real words. The number of pseudowords checked divided by the total number of pseudowords is known as the false alarm (FA) rate.

Lexical researchers appear to use false alarm (FA) data in YN tests in one of two ways: to adjust YN scores downward (Meara & Buxton, 1987); or to delete, or weed out unreliable forms. Under the adjustment usage, the YN results from participants who claim knowledge of pseudowords are adjusted downwards using a number of