Vocabulary for listening: Emerging evidence for high and mid-frequency vocabulary knowledge

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ABSTRACT

This article presents empirical evidence aimed at informing approaches to vocabulary development for the purpose of supporting L2 listening comprehension. Inferential statistics were used to analyze the relationship between second language (L2) aural vocabulary knowledge (AVK), L2 listening comprehension and the overall L2 proficiency among 247 tertiary level L2 learners of English. Three frequency based levels of AVK were measured. Measures of level 1 (0–2000 frequency range) and level 2 words (2001–3000 frequency range) tapped AVK of high frequency words, and level 3 words (3001–5000 frequency range) tapped AVK of words just beyond the high frequency range. Listening comprehension was measured with a version of the International English Language Testing System (IELTS). Regression modeling showed that AVK at each of the three levels contributed uniquely to the prediction of L2 listening for the entire cohort. Only measures of level 2 and 3 AVK were uniquely predictive of L2 listening for a relatively high proficiency subgroup, whereas only level 1 AVK offered a unique contribution to the prediction of L2 listening scores for a relatively low proficiency subgroup. Results are interpreted in order to provide a range of pedagogical recommendations.

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1. Introduction

Successful listening comprehension depends on a language user's knowledge of L2 words (Vandergrift & Baker, 2015). Words represent the lowest level of representation at which a stable connection between the form and the meaning of a word can be reliably established (Hulstijn, 2002); therefore, once words are recognized and associated with their literal meanings, larger semantic units can be built in the mind of the listener. Key to the listening comprehension process is the rapid and appropriate association of such semantic units (linguistic knowledge) with the listener's pre-existing schemata (non-linguistic knowledge).

The ability to recognize, understand and interpret strings of words in connected speech typically poses little difficulty for native speakers, as throughout their lifetime native speakers have been exposed to an immense quantity of contextualized spoken input (Ellis, 2002). This is not the case for many L2 listeners (Field, 2008a). Without having encountered the equivalent degree of exposure to the target language characteristic of native speakers, L2 learners typically have sub-optimal aural vocabulary knowledge; that is learners have difficulty recognizing words in the spoken form. Learners may even have difficulty in recognizing words in speech which they know when presented in the written form (Goh, 2000).

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Despite the importance of being able to recognize words from speech for L2 listening, and the difficulty word recognition causes L2 listeners (Field, 2008b; Goh, 2000), the relationship between aural vocabulary knowledge and L2 listening comprehension has received limited interest from researchers (Broersma & Cutler, 2008). Of particular interest to the current study are constructs of vocabulary knowledge shown to be strongly associated with L2 listening comprehension success; for example, constructs of vocabulary knowledge which involve "the ability to recognize the phonological [aural] form of the word, access existing knowledge of that word and produce a representation of it under time constraints" (Matthews & Cheng, 2015 , p. 4). The limited amount of research which has investigated the link between such constructs of L2 vocabulary knowledge and listening comprehension is of significance as the development of L2 vocabulary knowledge is likely to be an important component of L2 listening pedagogy (Vandergrift & Baker, 2015).

There is currently a relatively small body of empirical research which can guide evidence based approaches to the development of L2 vocabulary for listening (Stæhr, 2009; van Zeeland & Schmitt, 2013). However, there are key areas of research which have yet to be adequately investigated. In order to develop evidence based frameworks for L2 vocabulary for listening programs, a stronger understanding of the interaction between L2 aural vocabulary knowledge, L2 listening comprehension and the overall L2 proficiency evident within cohorts of language learners is required. However, little previous research has investigated the relationship between these three constructs in real learning contexts. The current research seeks to begin filling this gap in the literature.

2. Literature review

2.1. Which aspect of vocabulary knowledge is the most important for L2 listening comprehension?

When compared to L2 reading, far less research has focused on the relationship between vocabulary knowledge and L2 listening (Stæhr, 2008). Previous studies which have investigated the link between word knowledge and L2 listening demonstrate that vocabulary knowledge does have a strong link with L2 listening. However, several of these studies have not focused on the forms of vocabulary knowledge which are of strongest value to L2 listening comprehension (Bonk, 2000; Stæhr, 2008, 2009). For example, Stæhr (2009) demonstrated that L2 vocabulary knowledge was strongly correlated with listening comprehension and could explain 51% of the variance observed in the listening test scores of a cohort of 115 Danish learners. However, each of the vocabulary tests used measured knowledge of the form-meaning connection in the written form, which did not tap the test takers ability to recognize words in their spoken form. Further, the tests used in the study did not measure the capability of the test taker to access word knowledge under time constraints. This limitation is also significant, as the ability to rapidly process language in real time is crucial for successful L2 listening comprehension (Goh, 2000; Hulstijn, 2003). As Stæhr (2009) acknowledged, any future study which examines the link between vocabulary knowledge and L2 listening "should ideally be based on a vocabulary test that involves hearing the target words rather than reading them" (p. 597).

Previous research findings have made clear that the relationship between written and aural word knowledge is not fixed (Milton & Hopkins, 2006) and that knowledge of a word in its orthographic form does not guarantee the capability to recognize that word when presented in spoken language (Goh, 2000). A growing appreciation of the specificity and importance of aural vocabulary knowledge is reflected by recent research on testing this construct (McLean, Kramer, & Beglar, 2015) and by research which compares the relative contribution of written and aural forms of vocabulary knowledge on L2 listening comprehension. For example, Milton, Wade, and Hopkins (2010) administered two equivalent computerized test instruments which measured knowledge of English words in their spoken and written form among a group of 30 test subjects. Results indicated that participants' aural vocabulary knowledge was more strongly correlated with, and predictive of, L2 listening comprehension ($r = 0.67$, $p < 0.05$) than were measures of written vocabulary knowledge ($r = 0.48$, $p < 0.01$). Although the specificity of aural vocabulary knowledge for L2 listening is strongly suggested in the results presented in Milton et al. (2010), the relatively small sample size limits the degree to which these results can be used to generalize beyond the study cohort.

In a larger scale study, Cheng and Matthews (2016) investigated the relative strength of association between L2 listening comprehension and measures of both written and aural vocabulary knowledge among a cohort of 250 L2 learners. Results showed that aural vocabulary knowledge was more strongly associated with listening ($r = 0.71$, $p < 0.001$) than was written vocabulary knowledge ($r = 0.55$, $p < 0.001$). Factor analysis undertaken as part of the study showed that measures of aural and written vocabulary knowledge loaded onto discrete factors suggesting that these measures tapped distinct constructs.

Although few in number, previous studies which have investigated the strength of association between vocabulary knowledge and L2 listening suggest that aural vocabulary knowledge, that is the ability to recognize words as they are presented in spoken language, is more important to L2 listening comprehension than other forms of vocabulary knowledge. In light of these findings, research aimed at investigating the relationship between word knowledge and L2 listening should emphasize aural vocabulary knowledge as the primary construct of relevance.

2.2. Which lexical items are most important for L2 listening comprehension?

In order to guide L2 vocabulary for listening programs, it is also necessary to identify the groups of words which are most strongly supportive of L2 listening comprehension. Knowing the lexical coverage needed for adequate levels of L2 listening