

Perspectives

Leveraging Listening Texts in Vocabulary Acquisition for Low-literate Learners

Darren LaScotte

To date, the vast majority of research in second language (L2) vocabulary acquisition has looked at reading, but relatively few studies have explored the potential for vocabulary acquisition through listening. As for participants involved, studies concerning first language (L1) acquisition have mainly focused on pre- and emergent-reading children, whereas those concerning L2 acquisition comprised learners already highly literate in their L1. Like other research areas of second language acquisition (SLA), learners with low or no literacy in their L1 have been virtually neglected in these studies. Clearly, who we study determines what we know in SLA, yet there exists a significant gap in research literature regarding how understudied, low-literate (and illiterate) populations with strong oral traditions may acquire L2 vocabulary through listening. This paper addresses this gap by bridging research on cognitive processing and L2 vocabulary acquisition through listening. In light of this, relevant pedagogical implications for low-literate populations are discussed.

Jusqu'à présent, l'immense majorité de la recherche sur l'acquisition du vocabulaire de la langue seconde (L2) s'est concentrée sur la lecture, mais très peu d'études ont exploré le potentiel de l'acquisition du vocabulaire par l'écoute. En ce qui concerne les participants impliqués, les études sur l'acquisition de la première langue (L1) se sont principalement concentrées sur des enfants au stade de pré-lecture ou d'apprentissage de la lecture, alors que celles traitant de l'acquisition de la L2 incluaient des apprenants qui avaient déjà un haut niveau de littératie dans leur L1. Comme dans d'autres domaines de recherche sur l'acquisition de la langue seconde (ALS), les apprenants dont le niveau de littératie est bas ou inexistant dans leur L1 n'ont presque pas fait l'objet de ces études. Il est clair que les personnes que nous étudions déterminent ce que nous savons en matière d'ASL, cependant il existe dans la documentation de recherche un vide significatif concernant la capacité des populations sous scolarisées à faible niveau de littératie (et illétrées) dont les traditions orales sont fortes, à acquérir le vocabulaire de L2 par l'écoute. Cet article essaie de combler le vide en rapprochant la recherche sur le processus cognitif et l'acquisition du vocabulaire de la L2 par l'écoute. Sous cet angle, nous discutons des implications pédagogiques pertinentes pour les populations à faible niveau de littératie.

Keywords: vocabulary acquisition; low literacy; listening

In the field of second language acquisition (SLA), considerable attention has been given to language input and processing, syntax, learner motivation, and learning styles, among other topics, whereas the teaching and learning of second language (L2) vocabulary has historically been given low priority in second language classrooms (Folse, 2004). Students, teachers, and researchers have all agreed on and recognized the importance of the function of vocabulary in a language. And yet, little attention has been paid to the explicit teaching of vocabulary in the L2 classroom relative to its inherent value (Folse, 2004; Nation, 2013). Many teachers and researchers have operated under the myth that vocabulary acquisition would happen naturally with exposure to comprehensible input (Krashen, 1977, 1981) or under the “right” conditions without explicit instruction. However, as proven by more empirical research on L2 vocabulary, an approach with more explicit instruction from the teacher may yield better results in terms of learners’ language development and acquisition (Folse, 2004; Nation, 2013).

In the past two decades, research on L2 vocabulary acquisition has broadened our understanding of this area in SLA and has led to the development of best practices in language teaching (see for example, Folse, 2010; Laufer, 2009; Read, 2013, as cited in Rossiter, Abbott, & Kushner, 2016). However, the vast majority of the research on L2 vocabulary acquisition to date has been limited to reading, and relatively few studies have explored the potential of vocabulary acquisition through listening (Webb, 2016). As for participants involved, studies concerning first language (L1) acquisition have mainly focused on pre- and emergent-reading children (e.g., Brett, Rothlein, & Hurley, 1996; Elley, 1989; Penno, Wilkinson, & Moore, 2002), whereas those concerning L2 acquisition comprised learners highly literate in their L1 (e.g., Vidal, 2003, 2011). Like many studies in other research areas of SLA, learners with low or no literacy in their L1 have been virtually neglected (Bigelow & Tarone, 2004). According to UNESCO, “there are still 750 million illiterate adults around the world, most of whom are women” (UNESCO Institute for Statistics, 2019, para. 1), and, despite this, many of those same adults still learn to speak and understand multiple languages in addition to their L1(s) (Hill, 1970). Clearly, who we study determines what we know in SLA (Bigelow & Tarone, 2004), yet there exists a significant gap in the research literature regarding how understudied, low-literate (and illiterate)¹ populations with strong oral traditions, i.e., populations whose cultural and historical traditions are passed down by word of mouth as opposed to written instruction or documentation, may acquire L2 vocabulary through listening. This paper addresses this gap by bridging research on cognitive processing and L2 vocabulary acquisition through listening. In light of this, relevant pedagogical implications for low-literate populations are discussed.

Cognitive Processing

According to studies on input processing of language, common comprehension processes underlie both reading and listening (e.g., Kintsch & Kozminsky, 1977). Kintsch and Kozminsky observed that the comprehension skills that are at work in both listening and reading tasks are one in the same, stating that “these skills develop first in oral language and are later transferred to reading” (1977, p. 498). In the same vein, Gernsbacher, Varnerer, and Faust (1990) suggested that these skills are part of the processes and mechanisms underlying a simple (albeit all-encompassing) framework called the “Structure Building Framework” (Gernsbacher et al., 1990, p. 431). Within this framework, the goal of comprehension is to build a mental representation (i.e., structure) that consists of a foundation with related information mapped onto the former, resulting in several branching substructures. These mental structures and substructures are made up of memory cells that are activated (turned on) or suppressed (turned off) based on coherence of the input being processed in relation to the building structure(s). Evidently, there are many working parts involved in the complex process leading to comprehension, but this remains within the Structure Building Framework that works to process both visual and aural (audio) input (Gernsbacher et al., 1990).

In their study investigating possible differences between visual and aural modes of input in comprehension skills, Gernsbacher et al. (1990) found that participants—270 highly educated native speakers of English studying at a postsecondary institution in the United States—who demonstrated strong comprehension of written stories also showed strong performance in auditory stories as well as in nonverbal (picture) stories; thus, performance is highly correlated across the three modes. Indeed, participants who performed poorly in these tasks did so across all and not just one mode of input. In a separate study investigating reading and listening comprehension of narratives, Kintsch and Kozminsky (1977) found that participants’ comprehension was not affected by mode of input. Their study subjects—48 also highly educated native speakers of English studying at a postsecondary institution in the United States—demonstrated the same degree of understanding whether they read the three stories or listened to audio-recorded versions of the same stories. These studies demonstrate that in addition to being part of the same underlying cognitive process, one mode of input is not privileged over another for participants with high literacy skills. Reading does not result in stronger comprehension of the texts compared to listening. However, the same cannot be assumed for populations with low literacy (or none at all). Understandably, core comprehension processes for these understudied populations would privilege aural input over written input, listening over reading, as comprehension skills continue to develop and later transfer to reading as their literacy emerges. Indeed, research on the teaching of literacy skills (i.e., reading) has remarked the importance of developing

listening comprehension, phonological awareness, and decoding skills (see for example, Kruidenier, 2002, and Vinogradov & Bigelow, 2010, on research and teaching principles in adult literacy instruction). As these literacy skills emerge, emphasis on aural input may be best suited for the overall goal of comprehension.

Research on aural input and speech processing posits that listeners do not store speech verbatim directly into their memory, but instead build structural representations of what they understand (e.g., Clark & Clark, 1977 as cited in Vidal, 2003); this theory is well supported by the Structure Building Framework (Gernsbacher et al., 1990). In light of this, research on phonological memory shows that during the process of building these mental representations, the phonological short-term memory, i.e., phonological loop, plays an important role in the processing of verbatim speech, including novel vocabulary (Baddeley, 1997 as cited in Vidal, 2003). In this stage, verbatim speech is able to be retrieved from the phonological loop and further rehearsed or elaborated upon, moving towards abstraction and the building of a mental representation or structure. While these studies on cognitive processing concern themselves with L1 comprehension, I argue that the generalizable findings may be extended to L2 comprehension and vocabulary learning as well.

In a study exploring the role of phonological short-term memory in foreign language learning, Papagno, Valentine, and Baddeley (1991) studied the effects of articulatory suppression (a method that interferes with the phonological loop system) on 24 L1 Italian adult learners of Russian, including medical students, speech therapists, and doctors, and 24 L1 English adult learners of Finnish, all of whom were professionals in an applied psychology unit. Results from the study revealed that the phonological loop in short-term memory is indeed used in foreign language vocabulary acquisition and is not able to be circumvented in the learning of unfamiliar material (i.e., if other semantic associations are not able to be created). In a related study on the learning of English as a foreign language by 44 Finnish children aged 9 to 10 years old, Service (1992) also concluded that the ability to represent unfamiliar words (i.e., new L2 vocabulary) phonologically in short-term memory is crucial for language development. She argued that this ability underlies the acquisition of new vocabulary in L2 learning. In sum, the aforementioned cognitive processes underlying comprehension and the ability to recall and rehearse novel and foreign language in working, short-term memory demonstrate an innate ability to acquire new L2 vocabulary through listening and emphasize its importance for language development.

Incidental and Explicit Processes in L2 Vocabulary Acquisition

As research has suggested, listening can be an important means of L2 vocabulary growth, but of course, in order to gain new vocabulary, the intended message being communicated and its surrounding context need to be understood by the learner. According to Nation (2006, 2013), in order to gain “reasonable” comprehension of a running text, learners need to know at least 95% of the running words in the input, albeit a higher coverage of 98% would be better. To achieve this level of coverage and be successful at guessing unknown words from context, Nation (2006) found that 6,000 to 7,000 word families are necessary for academic listening, whereas more colloquial use of language (i.e., everyday conversations) requires far fewer word families at about 3,000 total. Webb and Rodgers (2009a, 2009b), for example, suggested a range of 3,000 to 4,000 word families in order to achieve 95% coverage of television programming and movies for entertainment. With reasonable comprehension of running texts at 95%, L2 learners should be able to glean new vocabulary from context and begin to internalize and acquire these new words. How this occurs, however, may be incidentally through (repeated) exposure or explicitly via teacher explanations and overt instructions. Both incidental and explicit L2 vocabulary acquisition processes are described below.

In the study of incidental vocabulary acquisition, i.e., without direct or explicit instruction, research has suggested that learners are able to acquire vocabulary by being “exposed” to a word a number of times. However, there seems to be little consensus as to how much exposure is needed, and most of the research has been done in the context of reading (as opposed to listening or viewing).² There have been relatively few studies on vocabulary acquisition through incidental exposure to repeated words in other modes of input. One such study by van Zeeland and Schmitt (2013) explored the degree to which four listening texts led to vocabulary gains in three separate dimensions: form recognition, grammar recognition, and meaning recall; participants of their study were 30 postgraduate students at a British university from various L1 (non-English) backgrounds. The results of their study suggested that after three to seven exposures to a word, participants were able to recognize word form during an immediate post-test. However, on the delayed post-test, frequency of occurrence did not appear to affect knowledge of form, grammar, or meaning, regardless of whether the participants had heard the word three, seven, 11, or 15 times. “It appears that immediate, short-term knowledge of form and grammar starts developing with relatively few exposures, yet it needs to be heard considerably more than fifteen times for this knowledge to fully develop and be retained” (van Zeeland & Schmitt, 2013, p. 621). They maintained that L2 listening is an important source of incidental vocabulary learning.

In another study, Vidal (2003) examined the vocabulary acquisition of 116 L2 English (L1 Spanish) university students in the context of viewing three video-recorded academic lectures in English. She found that frequency of occurrence benefited vocabulary acquisition (as repeated words were more salient to the listeners), and she suggested a minimum of five exposures to positively impact new vocabulary gains. Yet, she stressed that this was the least impactful factor on vocabulary acquisition (in comparison to word type, type of elaboration, and predictability from word parts) and that more research would be needed in this area.

Other relevant research has provided evidence that watching short video clips and television programs may also lead to incidental vocabulary acquisition by repeated exposure. Rodgers (2013; see also Rodgers & Webb, 2019), for example, found that frequency of occurrence had a medium correlation with vocabulary gains. In his longitudinal study, 187 Japanese university students watched 10 episodes of a television program in English with 17 target words occurring a *minimum* of five times. The higher the number of occurrences, the greater the likelihood the words were learned. In a related study on incidental vocabulary acquisition through viewing L2 television, Peters and Webb (2018) also found that increased frequency of occurrence (ranging from one to six times) correlated positively with vocabulary gains for 63 Flemish university students studying English. For each additional occurrence, students were 25% more likely to respond correctly to a given question in a vocabulary post-test.

Clearly, researchers have agreed that there is a relationship between repeated exposure and L2 vocabulary acquisition, though there seems to be no particular minimum number of repetitions that *ensures* acquisition (Nation, 2014), with proposed numbers ranging from fewer than five to greater than 15. In addition to this lack of consensus across the suggested results from the aforementioned studies, there is also concern that limited research has been done on listening (as opposed to reading) and that these studies based their findings on the performances of only highly-educated and literate participants; none of these studies examined the effect of repeated vocabulary exposure on low-literate or illiterate populations. Nevertheless, teachers and researchers alike have turned to a variety of incidental learning activities to increase learners' exposure to new and repeated words in listening texts. Examples of research include teacher-directed or prompted tasks such as "extensive listening" (Chang & Millett, 2014; Renandya & Farrell, 2011).

Borrowing from research on "extensive reading," Renandya and Farrell (2011) explored the benefits of extensive listening practice with students, and suggested that simply listening to comprehensible materials can lead to L2 acquisition. They defined extensive listening as "all types of listening activities that allow learners to receive a lot of comprehensible and enjoyable listening input" (Renandya & Farrell, 2011, p. 56), including a range of activities such as teacher-directed dictations, "read-alouds," or self-directed

listening for individual practice outside of the classroom. Chang and Millett (2014) investigated extensive listening and its effect on developing L2 listening fluency and vocabulary. In their study, three groups of English L2 university students in Taiwan engaged with Level 1 graded readers and/or audio texts by one of three modes over 13 weeks: reading (only), reading while listening, and listening (only). Results demonstrate that the reading-while-listening group produced the greatest gains in terms of vocabulary acquisition. Another finding was that the listening-only group and the reading-only group were comparable in terms of vocabulary acquisition and had the same amount of potential in terms of L2 learning and development.³

In agreement with Chang and Millett's (2014) finding that reading-while-listening produced the greatest gains in vocabulary development, Webb and Rogers (2009b) argued that general comprehension of audiovisual materials might be easier because of the support given by visual imagery with the audio. This has been corroborated by studies (e.g., Montero Perez, Peters, & Desmet, 2015, 2018) exploring vocabulary gains with captioned audiovisual recordings, although, Mueller (1980) suggested that this is most effective for learners with low proficiency and that highly proficient L2 learners see no additional vocabulary gains. Still, this lends additional support for the use of extensive listening in addition to, or perhaps in lieu of, extensive reading or other visual cues in the L2 classroom depending on the classroom context and student population.

While at times prompted and/or directed by the teacher or researcher, incidental vocabulary learning activities, such as extensive listening described above, remain implicit. In addition to implicit approaches to the teaching and learning of L2 vocabulary, research has also explored the role of explicit and guided instruction. One such form of explicit vocabulary instruction is teacher explanations. In Elley's (1989) seminal study on L1 vocabulary acquisition from listening to stories, teachers read stories out loud to 168 elementary school children (age 7) in New Zealand and measured their gains in new vocabulary via pre- and post-tests. Participants were split into two groups: one group was read aloud to without any explanation of unknown vocabulary words (consistent with an implicit, incidental approach to vocabulary acquisition); the second group was read aloud to and received explicit instruction (in the form of an explanation) regarding new vocabulary from the teacher. The findings of this study demonstrate that listening to stories provides a great source of new vocabulary to children regardless of whether explicit instruction in the form of teacher explanations accompanied the listening text. Both groups made gains in new vocabulary. However, the group that received no explanation made only 15% gains, whereas the group that received explanations made 40% gains. This suggests that an explicit approach to teaching vocabulary through listening may lead to greater language development and acquisition.

In another study on students' L1 vocabulary acquisition by explicit instruction in listening, Brett et al. (1996) examined the effects of listening to stories with an explanation of unfamiliar words, listening to stories with no explanation of those same words, and having no exposure to the stories or unfamiliar words whatsoever (the control group of the study). The study subjects were 165 fourth grade students from two different elementary schools in the United States. Results indicate that students who listened to stories along with a brief explanation of target vocabulary words learned significantly more new words compared to students who received no explanation and compared to students in the control group. Brett et al. (1996) concluded that a more explicit approach involving teacher explanations is most effective for vocabulary acquisition, and they suggested contextualization of new words in an "interesting story" for the greatest gains.

In light of the research on implicit and explicit approaches to vocabulary acquisition, it is clear that listening is an effective method for L2 learning and development, and, in some cases, has been determined to be as effective as reading (Chang & Millett, 2014). Nevertheless, the exclusion of low-literate and illiterate L2 learners from these types of studies remains a concern. As Bigelow and Tarone (2004) rightly pointed out, research on SLA has "ignored the impact of L1 literacy on a learner's acquisition process and ultimate success in acquiring oral L2 skills" (p. 689).⁴ To that end, it is unknown how exactly the research that has been made available thus far may or may not apply to populations of learners who have low or no literacy but come from strong oral cultures and traditions. In consideration of past research on L2 oracy and teaching adult learners with emerging literacy, the following section discusses possible pedagogical implications for low-literate populations with strong oral traditions.

Leveraging Listening Texts for Low-literate Learners

Many adolescent and adult L2 learners with low or no literacy bring with them strong oral traditions from their past. According to Fleisher Feldman (1991), societies without written language can have rich oral genres that are comparable to written genres in literate societies. This demonstrates a degree of complexity in spoken language that many might overlook. Ong (1988), however, maintained that, albeit complex, oral genres and written genres are not organized in the same way. Oral discourse and expression tend to be organized formulaically in the structure of proverbs and stories and are additive and redundant as opposed to subordinating and abstract. He argued that literacy causes a shift in expression and transforms discourse to be more analytical, distant, and abstract. This effect is transparent in the Somali language, for example, whose discourse characteristics (including lexical and elaboration features) were extended when written registers such as analytical

press were introduced in 1973 (Biber & Hared, 1991). This shows the impact of literacy on oral genres of language and its ability to influence and extend discourse features. As literacy emerges for the individual learner, however, oral discourse and listening texts may be leveraged to further develop L2 vocabulary and oral skills.

Research on the teaching of adults with emerging literacy has suggested that oral traditions grounded in historical, cultural contexts can be incorporated into L2 teaching activities to increase gains in L2 learning and development (Bigelow & Vinogradov, 2011). For example, Perry (2007, 2008) described how storytelling as a cultural practice could be leveraged by refugees from South Sudan and ultimately lead to their development of L2 literacy and vocabulary acquisition. She maintained that the “transformation” of storytelling (altering the purposes and media of storytelling for new audiences in a new language) revealed the importance of both becoming educated in the United States and also of maintaining a sense of Sudanese identity. In another example, Bigelow (2010) described one Somali participant as being extremely motivated to share her favourite Somali folktales with English speakers; this resulted in several drafts and revisions that attended to both meaning and form in English, which led to gains in L2 learning (concerning vocabulary, syntax, and written form).

From the examples above, it is shown that creating classroom activities that leverage students’ strong oral skills can be conducive to L2 learning and development while also paving the way to L2 literacy (e.g., Bigelow & Vinogradov, 2011; Perry, 2008). Just as storytelling and students’ speaking skills can be used to further students’ L2 learning, so too can appropriate listening texts. Already, research on L2 vocabulary acquisition through extensive listening tasks and explicit instruction demonstrates that listening is an effective method for learning new vocabulary, and, in some cases, it has proven just as effective as reading tasks. For learners coming from cultural backgrounds with strong oral traditions, this might prove to be even *more* effective. However, in consideration of students’ strengths (i.e., oral skills) and their hitherto exclusion from research on L2 vocabulary acquisition in the field of SLA, one is only able to assume based on little information we have.

In the very least, it seems reasonable to assume that the inclusion of listening texts in the L2 classroom for low-literate learners would only lead to an increase in their acquisition of new vocabulary and other language forms. Depending on the literacy level of students, this might be in place of, or in addition to, reading texts. As was demonstrated by Chang and Millett (2014), listening while reading yielded the greatest gains in L2 vocabulary acquisition; listening-only and reading-only yielded comparable results. A few examples of specific classroom activities that promote these principles are

- exploring extensive listening activities that provide comprehensible and enjoyable input (Renandya & Farrell, 2011) through the use of

tools such as audiobooks, short stories, podcasts, or radio shows;

- providing aural texts that accompany (or replace) verbatim written texts, such as with lectures or textbook readings; and
- giving students the option to choose between aural and written modes to achieve the same general learning objective (for example, news stories may have a video or audio version that differs from a written article in script but includes all of the same general information).

This list is in no way exhaustive but may provide practising teachers with tangible examples they can implement in their own classrooms. In addition to increasing their students' exposure to new vocabulary, the use of listening texts might also introduce students to new discourse genres in the L2. For example, listening to academic lectures would expose learners to spoken language that follows various non-colloquial conventions such as a "reading style"—speech following written modes and conventions as if the lecturer were actually reading (Dudley-Evans, 1994). By leveraging learners' strong oral skills in this way, teachers may be able to help bridge spoken word to written genres, and possibly, over time, help extend learners' L2 oral discourse features and help them move to more analytic and subordinating speech that is characteristic of written genres. At the very least, the use of listening texts from different genres can give meaning, context, and perhaps also enjoyment to learners for whom text has always been a source of discomfort or simply avoided (Tarone & Bigelow, 2005).

Conclusion

In the field of SLA, it is clear that who (and what) we study *does* determine what we know (Bigelow & Tarone, 2004), but evidently this is not enough. In terms of L2 vocabulary acquisition, relatively few studies have explored the potential for vocabulary acquisition through listening (Webb, 2016), and those that have investigated the question have limited their research to highly-educated and literate populations. Indeed, learners with low or no literacy in their L1 have been virtually neglected despite the fact that there are still 750 million illiterate adults around the world (UNESCO Institute for Statistics, 2019), and many of them still learn to speak and understand second or more languages (Hill, 1970). In consideration of past research on the cognitive processes underlying comprehension (in both reading and listening) and the findings from studies on vocabulary acquisition, this paper attempts to fill the gap regarding how understudied, low-literate (and illiterate) populations with strong oral traditions may acquire L2 vocabulary through listening. The assumptions made in this paper, however, are not sufficient if we sincerely wish to understand language acquisition processes for low-literate and

illiterate populations. Indeed, it is necessary that we replicate standard SLA studies with these understudied populations in order to gain a better understanding of how they process and acquire L2s (Tarone, 2010). In doing so, teachers may then be enabled to best serve low-literate adult L2 learners in the language classroom.

Notes

1 Definitions for these terms are adopted from Literacy Education and Second Language Learning for Adults (LESLLA.org), as defined in the proceedings of their inaugural symposium led by van de Craats, Kurvers, and Young-Scholten (2005, p. 8): “Non-literate (or illiterate): an adult who never went to school and cannot read and write, neither in his/her first language, the standard language of the country of origin, or the second language. Low-literate: an adult who has attended school, but who has a reading level below the average primary school level.”

2 There is extensive research on incidental L2 vocabulary acquisition via repeated exposure to unknown words in written texts. See studies such as Saragi, Nation, & Meister (1978); Horst, Cobb, & Meara (1998); and Webb (2007).

3 Compare the study led by Brown, Waring, and Donkaewbua (2008) with a similar methodology, which showed very little learning from the listening group. The authors reasoned that this might be due to participants’ “critical lack of familiarity with spoken English” (p. 148), and a lexical coverage rate that was lower than what was recommended by Nation (2006, 2013) for “reasonable” comprehension of a text.

4 See also Tarone, 2010; Tarone, Bigelow, & Hansen 2009; for extensive review of this topic.

The Author

Darren Keith LaScotte is ESL Teaching Specialist in the Minnesota English Language Program (MELP) at the University of Minnesota. Within the broader scope of applied linguistics, his research focuses on second language acquisition and use, and on the resulting implications for teaching and learning. He has published on topics of language use and variation, the construct of voice and heteroglossia, and second language instruction and assessment.

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