

Simultaneous Listening and Reading in ESL: Helping Second Language Learners Read (and Enjoy Reading) More Efficiently

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This study investigated the effects of simultaneously reading and listening to the same text on comprehension and fluency gains for basic-level English language learners at a university in Puerto Rico. The quiz scores and fluency rates of two English lab groups ($n = 69$) who read and listened to E. B. White's novel *Charlotte's Web* were compared to the scores and rates of two other English lab groups ($n = 68$) who silently read the same novel. The listening-while-reading group outscored the reading-only group on all eight weekly comprehension quizzes; for four of those quizzes, the difference was statistically significant ($p < 0.05$). Data on fluency gains failed to show any trends.

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On the face of it, reading and listening as language skills share a similar problem-solving task, that of deciphering meaning from streams of language symbols. Yet both the source and context of those symbols make the two skills seem quite distinct. As Lund (1991) discusses, there have been two approaches to the relationship of these skills in first language (L1) research. Whereas both traditions agree that decoding written text is very different from decoding spoken text, one tradition sees the comprehension processes in the two skills as fundamentally the same, and the other tradition sees comprehension in the two skills as similar, yet different in important respects. Lund points out that the unitary model has been the predominant view in L1 reading and listening research.

Lund (1991) himself found that for second language (L2) learners, the modalities of reading and listening appear to encourage the learner to use different comprehension strategies for the two tasks. His study compared a group that read a short text in L2 German with a group that listened to the same text. He found that although the reading group outperformed the listening group in terms of comprehension scores, the listening group appeared to do quite well with recalling global information, whereas the reading group did well with recalling details.

Lund's (1991) study, like many studies comparing L1 reading and listening (e.g., Rubin, Hafer, & Arata, 2000; Sticht & James, 1984), compares the processes of reading and listening as separate activities in older, more literate learners. His work seems to support the *similar but different* approach to reading and listening comprehension. Yet there may be strong reasons, both theoretically and pedagogically, to connect these activities. From a theoretical perspective, Ehri (1992) and Perfetti (1992) have argued convincingly that phonological processing is intricately involved in rapid word decoding as well as in sight word recognition. This means that word comprehension is always done with a phonological component, suggesting that reading comprehension, like listening comprehension, depends in part on phonological processing.

From a pedagogical perspective, the question of whether listening might support reading development has been confined mostly to the research on emergent reading in children. Rasinski (2001) found that *listening while reading* the same text facilitated the reading fluency for L1 third-grade students. Van Bon, Bokseveld, Font Freide, and Van den Hurk (1991) found that a variety of techniques using listening while reading improved the vocabulary acquisition of 9-year-old students with reading disabilities. Shany and Biemiller (1995) found that listening while reading significantly improved the reading comprehension and fluency of at-risk third and fourth graders, as compared to a control group. Additionally, they found that "listening while reading resulted in twice the amount of reading as the other [experimental] method [of teacher-assisted reading] and led to higher scores on listening comprehension measures" (Shany and Biemiller, 1995, p. 382).

Although these findings suggest a benefit of listening while reading, McMahon (1983) discusses the possibility of a developmental threshold with very young readers. The first and third graders in her study were able to perform error detection tasks successfully during listening while reading at their own typical reading rate, but their success diminished when listening to tapes at “rates typical of ‘read-along’ materials found in schools” (p. 38). With these young readers, the ability to combine reading and listening processes in a listening-while-reading task may have depended on their reading proficiency.

Although listening while reading has been practiced mostly in the primary grades, the technique has had success when using young adult literature for English language learners (ELLs) in middle schools (Richardson & Carleton, 1996) and in secondary schools (Phelps-Zientarski & Pottorff, 1994). One study, however, looked at listening while reading in older, university-level EFL students. Taguchi, Takayasu-Maass, and Gorsuch (2004) investigated fluency and comprehension gains from simultaneously reading and listening to the same text by Japanese students with beginning-level English proficiency. This study involved comparing two approaches to reading instruction: repeated reading and extensive reading. The authors concluded that, over the course of 17 weeks, repeated reading in conjunction with simultaneously listening to the text being read was just as effective as extensive reading in producing gains in reading fluency and comprehension. However, their conclusions must be considered in light of two methodological concerns. First, they discovered that the instruments they used to measure pretest and posttest comprehension and fluency scores could not be verified as being equal measures for their participants. Although the instruments were considered equal for L1 students, in a poststudy analysis they found that the tests were not equal in difficulty for their EFL students. Thus, some of the gains could be the effect of the instruments and not the training. Second, even if the tests were equal, their pretest and posttest measures did not involve listening while reading, so the effects of listening while reading were not measured directly; instead, these effects were assumed to exist due to a transfer of training.

The study I present now looked specifically at the effect of simultaneous listening and reading on the comprehension and fluency scores of university ESL¹ students in Puerto Rico.

BACKGROUND

Three years ago, the ESL faculty of the University of Puerto Rico, Mayagüez, decided to use audiobooks to fulfill a listening skills component of the basic ESL track curriculum. We made this decision based on a number of factors, including a pedagogical concern that the lab materials in prior years had been irrelevant and uninteresting. A few professors thought that students would enjoy listening to high-quality literature rather than to exercises or extracts from disconnected texts. Moreover, a few professors also thought that good experiences with listening while reading would lead to more reading, and more effective reading, with possible future gains in fluency for listening and reading skills.

We chose a book from classic American children's literature, *Charlotte's Web* (White, 1952), as read by the author, because we reasoned, among other things, that

- the language was at an appropriate yet challenging level for these basic-level ESL students,
- the story contained sophisticated themes for discussion,
- the audio portion would provide students with an aid to pronunciation,
- it was a good story—an engaging text.

After this trial of simultaneous reading and listening in the language lab, I conducted an informal survey of the students (about 60) to get their reaction to the activity. More than 90% said that hearing someone read the words of the text helped them understand the text better. Other professors reported similar comments in students' journals about the lab experience. Whereas we professors thought the activity would indirectly help students' pronunciation skills, students seemed to be saying that this particular form of assisted fluency aided their comprehension of the

¹Although *ELL* may be a preferred term, it is not often used in Puerto Rico. As perhaps another indicator of the complexity of language education and language policy in Puerto Rico, the designations *ESL* and *EFL* could both be applied there. Although English is a required language class from kindergarten through Grade 12, and the university itself is bilingual in both curriculum and faculty, Spanish remains the dominant language of the community. See Pousada (1999) about the use of English in Puerto Rico.

story. It appeared from these informal remarks that simultaneously reading and listening to a text had tapped into the *zone of proximal development* (Graves & Fitzgerald, 2003; Vygotsky, 1978) for some of these students, allowing them to accomplish more with the assisted reading than they could have accomplished without the assistance.

Subsequently, I designed a study that would more formally test the effects on comprehension and fluency of listening while reading. I started this research with the following hypotheses:

- Students who read while listening to the text will have higher comprehension scores than students who only read the text.
- Students who read while listening to the text will show greater improvements in reading fluency than students who only read the text.

METHOD

Participants

The participants in this study came from four language laboratory classes of basic-level English held in the fall of the 2007–2008 academic year. Students at this university are placed in one of three levels of English classes, based on their scores on the English as a Second Language Achievement Test (ESLAT).² Students with a score between 470 and 569 are placed at the lowest, or basic-level, English class.³ There were 22 basic-level lab sections that semester, and the four lab sections for this study were selected based on my availability as a lab monitor. Students in these labs were told that they were part of an observation-based experimental study to determine how to improve the language lab, and all students consented to participate in this study. The students ($n = 69$) in two of these lab sections were designated the experimental group; that is, they would use the technique of reading while listening to an audiobook of the same text they were reading. The students ($n = 68$) in the other lab sections represented a control group; they would

² Administered by The College Board, the Puerto Rico and Latin America Office, the ESLAT is divided into 40 grammar items and 20 reading comprehension items, with scores ranging from 200 to 800 (Casallar & Dorans, 2003).

³ Students with scores below 470 are placed in remedial, noncredit courses. Students with scores of 570 and above are placed in intermediate-level English. Advanced-level students are selected from this group based on an essay examination.

read the same novel in the traditional way, without audiobook support. There were no significant differences found between these two groups, based on a *t*-test comparison of the groups' average ESLAT scores ($p = 0.20$, two-tailed). The average ESLAT score for the experimental group was 492; for the control group it was 478.

Two of the lab sections, one experimental and one control, were held in the morning, starting at either 8:30 or 9:30. The other two lab sections, again one experimental and one control, were held in the early afternoon. The labs for reading the novel were held once a week for 8 weeks, each lab session lasting 50 minutes.

Instruments and Materials

Three instruments were developed to collect a variety of relevant data, including reading fluency rates, comprehension scores, and attitudes toward listening while reading. To measure fluency rates, students completed weekly charts indicating how far they read in 5 minutes; the results were tabulated in number of words per 5 minutes. Comprehension scores were measured by eight weekly quizzes on the reading material, administered immediately after the reading session ended, which was 10 minutes before the lab hour ended. Quizzes were designed to test the students' understanding of details and gist, as well as their understanding of vocabulary in context. The first two quizzes contained 25 items, but after observing that the students had a difficult time finishing the quizzes, I shortened the remaining six quizzes to 20 items each.

To obtain information about students' attitudes toward reading and about their reading experience in the lab, a poststudy questionnaire was given to the students (see Appendices A and B). This questionnaire consisted of 24 Likert-scale items covering student attitudes in three general areas: their general reading experience, the listening-while-reading experience, and the quiz-taking experience. In other words, the students were asked to show their level of agreement with a statement concerning their experience with or attitude toward the lab activities. Students in all groups took the same postlab questionnaire; however, students in the control group were directed to pass over the questions relating to the listening-while-reading experience. The questionnaire ended

with an open-ended request for students to write any other comments they had about the lab experience.

Procedures

All students read E. B. White's *Charlotte's Web*. Students in the experimental group listened to a recording of the story as they silently read and followed along with the reader. The unabridged story is read by the author, and the CD recording of the story follows the book's chapter-by-chapter format. The students in the control group were instructed to read silently the same chapters read by the experimental group. In all, there are 22 chapters, and each lab session covered approximately three chapters, spanning 8 weeks.

Each lab session began with a 5-minute timed reading. Students in both control and experimental groups read silently from the same chapter of the book without the aid of the audiobook. They then indicated on a personal reading fluency chart where they had gotten to at the end of the 5 minutes. The word count for each timed reading was later calculated (by me, as lab monitor) and written on each student's fluency chart so that they could see their progress.

After the timed reading, all students had 30 minutes to read the material for that lab session. The students in the experimental group listened to the audiobook while they read, whereas the control group read the novel silently without the audiobook. Each student in the experimental group had control of the audiobook; each could stop it and review or replay any segment of the text. The audiobook playing time for each lab averaged about 25 minutes. At the end of the time allotted for reading, all students in both groups were given the comprehension quiz. The quizzes started approximately 10 minutes before the end of class, but students were allowed to stay until they completed the quiz if they chose to. One of the curricular goals for these classes was to encourage reading strategies, so the students were allowed to answer the quizzes with the aid of their books because this behavior should encourage other reading skills, such as scanning for information.

One week after the end of all lab sessions for the semester, students in all groups completed the postlab questionnaire.

RESULTS

Quiz Scores

The experimental group outscored the control group on all eight quizzes. Table 1 shows the average scores for each quiz by group. For four of those quizzes, the difference was statistically significant (*t*-test, one-tailed:⁴ Quiz 1, $p = 0.047$; Quiz 3, $p = 0.046$; Quiz 4, $p = 0.033$; Quiz 6, $p = 0.035$). A fifth quiz, Quiz 2, approached statistical significance ($p = 0.08$).

Fluency Scores

The rate of reading measured in the first 5 minutes of each lab session did not reveal any patterns. There appeared to be wide variability from week to week, both across groups and for individuals. Not only did average words per minute vary, but the large standard deviations revealed a lack of data clustering. Perhaps the procedure of measuring fluency at the beginning, as opposed to the end, of the lab session did not allow students sufficient time to engage in the reading. Due to these observations in the data, I did not perform further statistical tests on reading fluency. However, student reports on their fluency gains are described in the next section on questionnaire data.

⁴The less conservative one-tailed test was used because the experimental group never scored lower than the control group and because only one direction of difference in quiz scores was of interest in this study.

TABLE 1. Average Quiz Scores by Group

Group	Q1 (25)*	Q2 (25)	Q3 (20)	Q4 (20)	Q5 (20)	Q6 (20)	Q7 (20)	Q8 (20)
Reading/Listening	20.0	15.3	12.5	14.0	14.2	14.2	14.3	16.3
SD	3.6	3.3	3.2	2.8	3.3	3.1	3.4	2.7
(<i>n</i>)	(43)	(59)	(58)	(62)	(61)	(58)	(61)	(55)
Reading Only	18.6	14.4	11.5	13.0	13.9	13.1	13.9	15.8
SD	4.1	3.8	3.0	3.5	3.2	3.6	3.7	3.5
(<i>n</i>)	(55)	(62)	(61)	(59)	(61)	(52)	(55)	(59)

*The number in parentheses indicates the number of questions on that quiz.

Note: The number of students taking the quizzes varied due to absences. Although these students were allowed to take makeup quizzes, those makeups were not included in the analysis.

Questionnaire Data

The purpose of the questionnaire was to provide additional information to help interpret the quantitative data. I report on three relevant areas covered by the questionnaire: general reading, listening while reading, and open-ended comments about the lab.

The first set of issues concerns the experience of reading in the lab. A large majority of students (90%; $n = 134$) in both experimental and control groups, as well as 30 randomly selected questionnaire responses⁵ from lab sections outside the study group, reported highly favorable attitudes toward reading as a lab activity. This suggests that the lab activities had high face validity for the students. Here is a summary of responses to four of these questions related to the students' attitudes toward the novel:

- 85% enjoyed the book
- 81% reported that the language in the book was easy to understand
- 83% learned something important from the book
- 35% thought the book was too childish

The students' attitudes were generally favorable toward this novel. It is worth noting, however, that although a majority of these university students (65%) did not feel that the novel was too childish, a significant minority (35%) did. Despite this opinion, more than half of those who felt this way nonetheless must have enjoyed reading the book (because only 15% said they did not enjoy it).

The next set of issues from the postlab questionnaire concerns the experience of listening while reading. The data reported here represent the experimental group and the 30 randomly selected responses ($n = 86$). Table 2 shows the distribution of answers on the Likert-scale for five statements concerning their experience of reading while listening.

As can be seen in Table 2, a large majority of the students felt that the listening-while-reading experience helped their listening and reading comprehension skills. By collapsing the agree columns into one category, 92% of the students felt that listening while

⁵As noted in the Participants section, there were 18 other lab sections that semester. Students in these sections simultaneously listened to and read the novel. The questionnaire they completed at the end of the semester was similar to the one given to students in my study group, except that it did not have items concerning the timed reading activity.

TABLE 2. Questionnaire Responses to Listening While Reading

	Disagree Completely	Disagree	Agree	Agree Completely
#19: helped me improve my listening skills	0	12	52	21
#20: helped me understand the book better	1	6	42	36
#21: hearing the pronunciation helped me understand the book better	1	7	50	28
#22: helped me remember the book better	0	11	52	23
#25: helped me read faster	1	15	48	22

Note: One student did not complete items 19 and 20.

reading helped them understand the book better (item 20), and 42% felt strongly that this was true. Additionally, 87% of the students felt that the technique helped them remember the text better, and 81% thought that the technique helped them increase their reading speed. Although these students' beliefs about the effect of listening while reading on their reading speed could not be confirmed by the reading rate data, their quiz scores suggest that they were right about their understanding of texts: Simultaneous reading and listening indeed appears to have improved their understanding of the text.

Finally, the students in all groups were given the opportunity to add any comments they wanted to make regarding their experience in the lab. Of particular interest to the focus of this study, 31 students from the experimental groups wrote comments at the end of the questionnaire. These comments ranged in length from a short phrase to long paragraph. Most (19) of the comments were positive, such as this general remark on the experience:

El laboratorio de inglés fue una buena experiencia para mi, y me ayudó muchísimo a leer y a comprender la lectura. [The English lab was a good experience for me, and it helped me very much to read and understand the text.]

The following remark from another student in the experimental group focuses specifically on simultaneous reading and listening:

Al escuchar y leer a la misma vez pude entender mejor el libro y me ayudó también a poder leer más rápido y por supuesto aprendí a pronunciar algunas palabras que desconocía. [Listening and reading at the same time, I was able to understand the book better, and it helped me also with the ability to read more rapidly, and of course I learned how to pronounce some words that I didn't know.]

Five of the open-ended responses from the experimental group were negative, but three of these comments did not pertain to the focus of this study, rather to lab administration or scheduling issues. Two of these students felt that the quizzes were too difficult. Finally, seven responses were considered to have a mixed attitude toward the experience of listening while reading. Some of these students also mentioned that the quizzes were difficult or that they did not have enough time to complete the quizzes. One student commented that, although he or she enjoyed the experience, it would have been better to first read and then later re-read while listening at the same time.

DISCUSSION

Of the two research questions that began this study, only the question concerning the effect of simultaneous reading and listening on comprehension has been satisfied. According to these findings, listening while reading appears to have a beneficial effect on comprehension for basic-level L2 learners of English. Students who read while listening to the same text outscored students who read without the support of simultaneously listening to an audio recording of the text. How is this possible?

From a purely cognitive point of view, it is possible that these basic-level readers of L2 English can devote more of their processing capacity to comprehension if they are freed from using those mental resources for decoding. For example, a basic-level reader might utilize background knowledge or contextual information more efficiently when decoding is rapid (Stanovich, 1992). Although for rapid silent reading that is typical of fully fluent readers, the cognitive load for decoding is small, it is almost certainly large for emergent and less skilled L1 readers (Stanovich, 1982, 1986, 1992) and beginning-level L2 readers (Durgunoglu,

Nagy, & Hancin-Bhatt, 1993). Those L2 English students in my study who reported that simultaneous reading and listening helped increase their reading speed—or fluency—may have benefited from a lighter cognitive load. With additional cognitive resources available for comprehension, these students achieved higher quiz scores. In other words, their improved reading fluency facilitated their reading comprehension. This cognitive explanation assumes that comprehension processes are distinct from decoding processes, a position taken by many L1 researchers such as Gough and Hillinger (1980), Stanovich (1992), and Rumelhart (1994) as well as by L2 researchers such as Lund (1991).

Ehri (1992), however, proposes that comprehension and decoding processes are not distinct activities, but interconnected tasks. Responding to the dual route theory of reading, which proposes that word reading (comprehension) is accomplished either by sight word recognition or by phonological recoding, Ehri proposes that even sight word reading is accomplished with a phonological trace. Put differently, a word's meaning is necessarily wrapped or packaged ("amalgamated," p. 108) mentally with its pronunciation and spelling. Thus, even in rapid silent reading, the sound of the word is carried through. If a beginning- or even intermediate-level L2 reader stumbles on this phonological trace, even a familiar word's meaning can be lost or corrupted. Ehri's concept of amalgamation seems to suggest that fluency itself is part of comprehension.

Vygotsky's (1978) concept of the zone of proximal development offers a different explanation for the effects of simultaneous reading and listening observed in this study. From this sociocultural perspective, the audio recording of the text may have acted like a more experienced or knowledgeable assistant, helping the reader decode to achieve a higher level of reading fluency than he or she would otherwise be capable of doing independently. A sociocultural perspective does not require rejecting either the dual route theory or Ehri's (1992) amalgamation theory. According to this perspective, all higher level thinking, which would include reading, begins on the social or intermental plane and moves to the intramental plane via the intervention of a more experienced "teacher" or collaborator. The audio recording, even though it is a mechanical device, may have fulfilled this social role. Here, too, the

assisted gains in reading fluency are presumed to facilitate reading comprehension.

CONCLUSION

Whether one takes a cognitive or sociocultural approach to explain the results of this study, it is reasonable to assume that fluency is what the simultaneous reader/listeners gained. If comprehension is the goal of reading, fluency is perhaps its *gestalt*. Without fluency, there is probably very little engagement or pleasure in reading. Unfortunately, anyone who has taught L2 learners, especially at the basic level, knows that this engaged reading experience is practically unknown to the beginning-level L2 learner reading an L2 text. For these learners, reading is a halting process, full of stops and puzzlement. Engagement is not possible without fluency, and the consequences of faltering or failed engagement in the reading task can lead to further failures and fewer attempts to succeed at reading: “Unrewarding early reading experiences . . . lead to less involvement in reading-related activities” (Stanovich, 1992, p. 328).

Most practitioners will say that fluent reading comes with experience. The more learners read in the L2, the more fluent they will become. This approach, however true, does nothing for the learner who is currently struggling with the text. Some L2 reading texts attempt to aid the learner with notes and glosses of selected words or with prereading exercises for building background knowledge, but these aids seem primarily directed toward comprehension, not reading fluency. As already mentioned, the results of this study suggest that assisted fluency facilitates comprehension. However, further studies are needed in order to get more reliable data on the transfer of the effects of simultaneous reading and listening on independent reading rates. These more reliable data could then be correlated with comprehension gains.

If word meaning is necessarily packaged with its pronunciation and spelling (Ehri, 1992), it is easy to see why reading for ELLs at a basic or beginning level is aided by simultaneous reading of and listening to a text. Educators of L2 learners might therefore consider simultaneous reading and listening activities in the classroom as a way to stimulate each learner’s zone of proximal development. The learner connects the visual stimuli (seeing the written text, the

spelling) with the auditory stimuli (hearing the written text, the pronunciation) in a fluent stream. Of course, this alone does not guarantee complete comprehension. Unfamiliar words must still be reckoned with. However, learners at this stage even stumble with many known words, and this stumbling with known words is what defines much of the experience of beginning L2 readers. Simultaneous reading of and listening to texts can push these students along faster, getting that needed experience in a more efficient and perhaps more pleasurable way.

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REFERENCES

- Cascallar, A. S., & Dorans, N. J. (2003). *Linking scores from tests of similar content given in different languages: Spanish Language PAA and English Language SAT I* (Research Report No. 2003-5 ETS RR-03-20). New York, NY: College Board. Retrieved from http://professionals.collegeboard.com/profdownload/pdf/linkingscoresrr035_03_31456.pdf
- Durgunoglu, A. Y., Nagy, W. E., & Hancin-Bhatt, B. J. (1993). Cross-language transfer of phonological awareness. *Journal of Educational Psychology, 85*, 453–465. doi:10.1037/0022-0663.85.3.453
- Ehri, L. (1992). Reconceptualizing the development of sight word reading and its relationship to recoding. In P. Gough, C. Juel, & P. Griffith (Eds.), *Reading acquisition* (pp. 107–143). Hillsdale, NJ: Lawrence Erlbaum.
- Gough, P., & Hillinger, M. (1980). Learning to read: An unnatural act. *Bulletin of the Orion Society, 30*, 171–176.
- Graves, M., & Fitzgerald, J. (2003). Scaffolding reading experiences for multilingual classrooms. In G. Garcia (Ed.), *English learners: Reaching the highest level of English literacy* (pp. 96–124). Newark, DE: International Reading Association.
- Lund, R. (1991). A comparison of second language listening and reading comprehension. *Modern Language Journal, 75*, 196–204.
- McMahon, M. (1983). Development of reading-while-listening skills in the primary grades. *Reading Research Quarterly, 19*, 38–51.

- Perfetti, C. (1992). The representation problem in reading acquisition. In P. Gough, C. Juel, & P. Griffith (Eds.), *Reading acquisition* (pp. 145–174). Hillsdale, NJ: Lawrence Erlbaum.
- Phelps-Zientarski, D., & Pottorff, D. (1994). Reading aloud to low achieving secondary students. *Reading Horizons*, 35(1), 44–51.
- Pousada, A. (1999). The singularly strange story of the English language in Puerto Rico. *Milenio*, 3, 33–60.
- Rasinski, T. (1990). Effects of repeated reading and listening-while-reading on reading fluency. *Journal of Educational Research*, 83, 147–150.
- Richardson, J., & Carleton, L. (1996). A read-aloud for students of English as a second language. *Journal of Adolescent and Adult Literacy*, 40, 140–143.
- Rubin, D. L., Hafer, T., & Arata, K. (2000). Reading and listening to oral-based versus literate-based discourse. *Communication Education*, 49, 121–133. doi:10.1080/03634520009379200
- Rumelhart, D. (1994). Toward an interactive model of reading. In R. Ruddell, M. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (pp. 864–894). Newark, DE: International Reading Association.
- Shany, M., & Biemiller, A. (1995). Assisted reading practice: Effects on performance for poor readers in grades 3 and 4. *Reading Research Quarterly*, 30, 382–395. doi:10.2307/747622.
- Stanovich, K. (1982). Individual differences in the cognitive processes of reading: I. Word decoding. *Journal of Learning Disabilities*, 15, 485–493. doi:10.1177/002221948201500809
- Stanovich, K. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 21, 360–407.
- Stanovich, K. (1992). Speculation on the causes and consequences of individual differences in early reading acquisition. In P. Gough, C. Juel, & P. Griffith (Eds.), *Reading acquisition* (pp. 307–342). Hillsdale, NJ: Lawrence Erlbaum.
- Sticht, T., & James, J. (1984). Listening and reading. In P. D. Pearson (Ed.), *Handbook of reading research* (pp. 293–317). New York, NY: Longman.
- Taguchi, E., Takayasu-Maass, M., & Gorsuch, G. (2004). Developing reading fluency in EFL: How assisted repeated reading and

- extensive reading affect fluency development. *Reading in a Foreign Language*, 16, 70–96.
- Van Bon, W., Bokseveld, L., Font Freide, T., & Van den Hurk, A. (1991). A comparison of three methods of reading-while-listening. *Journal of Learning Disabilities*, 24, 471–476.
doi:10.1177/002221949102400805
- Vygotsky, L. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.
- White, E. B. (1952). *Charlotte's Web*. New York: HarperCollins. (Audiobook published by Listening Library, a division of Random House)

APPENDIX A

QUESTIONNAIRE IN SPANISH

1. ¿Cuál era tu sección de laboratorio?

- a. Lunes 1:30–2:20 (Reading/Listening Group 1—Sección 070L)
- b. Miércoles 8:30–9:20 (Reading/Listening Group 2—Sección 021L)
- c. Martes 9:30–10:20 (Reading-Only Group 1—Sección 036L)
- d. Miércoles 12:30–1:20 (Reading-Only Group 2—Sección 060L)

Considera las siguientes aseveraciones y responde a lo siguiente:
Preguntas para todos los grupos.

2. Comprendí el propósito de los “reading logs” de cinco minutos.

EN TOTAL DESACUERDO EN DESACUERDO EN ACUERDO EN TOTAL ACUERDO

3. Los “reading logs” me ayudaron a ver cambios en mi velocidad en la lectura.

EN TOTAL DESACUERDO EN DESACUERDO EN ACUERDO EN TOTAL ACUERDO

4. Los “reading logs” fueron una medida precisa de mi velocidad de lectura en inglés.

EN TOTAL DESACUERDO EN DESACUERDO EN ACUERDO EN TOTAL ACUERDO

5. Durante los cinco minutos que leí para los “reading logs,” estaba leyendo el texto, no lo hojeaba.

NUNCA CASI NUNCA DE VEZ EN CUANDO CASI SIEMPRE SIEMPRE

6. Leí los capítulos antes del día del laboratorio.

NUNCA CASI NUNCA DE VEZ EN CUANDO CASI SIEMPRE SIEMPRE

7. Disfruté leyendo el libro *Charlotte's Web*.

EN TOTAL DESACUERDO EN DESACUERDO EN ACUERDO EN TOTAL ACUERDO

8. Encontré el lenguaje en *Charlotte's Web* muy fácil.

EN TOTAL DESACUERDO EN DESACUERDO EN ACUERDO EN TOTAL ACUERDO

9. Aprendí algo importante del libro *Charlotte's Web*.

EN TOTAL DESACUERDO EN DESACUERDO EN ACUERDO EN TOTAL ACUERDO

10. La historia de *Charlotte's Web* era demasiado infantil para mí.

EN TOTAL DESACUERDO EN DESACUERDO EN ACUERDO EN TOTAL ACUERDO

11. Tuve suficiente tiempo para leer los capítulos asignados en el laboratorio.

NUNCA CASI NUNCA DE VEZ EN CUANDO CASI SIEMPRE SIEMPRE

12. Entendí las preguntas de los quizzes semanales.

NUNCA CASI NUNCA DE VEZ EN CUANDO CASI SIEMPRE SIEMPRE

13. Los quizzes eran muy fáciles para mí.

NUNCA CASI NUNCA DE VEZ EN CUANDO CASI SIEMPRE SIEMPRE

14. Cuando no sabía la contestación de un quiz la adivinaba.

NUNCA CASI NUNCA DE VEZ EN CUANDO CASI SIEMPRE SIEMPRE

15. Hojeaba el libro para contestar las preguntas del quiz.

NUNCA CASI NUNCA DE VEZ EN CUANDO CASI SIEMPRE SIEMPRE

16. El trabajo que hice en el laboratorio de inglés me ayudó a mejorar mis destrezas de lectura.

EN TOTAL DESACUERDO EN DESACUERDO EN ACUERDO EN TOTAL ACUERDO

17. Mientras leía el libro en el laboratorio, marcaba las partes más importantes.

NUNCA CASI NUNCA DE VEZ EN CUANDO CASI SIEMPRE SIEMPRE

18. Mientras leí a el libro en el laboratorio, marcaba palabras que no entendía o desconocía.

NUNCA CASI NUNCA DE VEZ EN CUANDO CASI SIEMPRE SIEMPRE

Los estudiantes que asistían a los laboratorios de "reading and listening," continúen con el número 19. Estudiantes en los laboratorios "reading only," continúen con el número 26.

19. El trabajo que hice en el laboratorio de inglés me ayudó a mejorar mis destrezas auditivas.

EN TOTAL DESACUERDO EN DESACUERDO EN ACUERDO EN TOTAL ACUERDO

20. Leer y escuchar el libro a la vez me ayudó a entender el libro mejor.

EN TOTAL DESACUERDO EN DESACUERDO EN ACUERDO EN TOTAL ACUERDO

21. Escuchar la pronunciación en inglés me ayudó a entender el libro mejor.

EN TOTAL DESACUERDO EN DESACUERDO EN ACUERDO EN TOTAL ACUERDO

22. Leer y escuchar el libro a la vez me ayudó a recordar el libro mejor.

EN TOTAL DESACUERDO EN DESACUERDO EN ACUERDO EN TOTAL ACUERDO

23. El lector del CD leyó demasiado rápido.

EN TOTAL DESACUERDO EN DESACUERDO EN ACUERDO EN TOTAL ACUERDO

24. Yo puedo leer más rápido sin el CD.

EN TOTAL DESACUERDO EN DESACUERDO EN ACUERDO EN TOTAL ACUERDO

25. Leer y escuchar el libro a la vez me ayudó a leer más rápido en inglés.

EN TOTAL DESACUERDO EN DESACUERDO EN ACUERDO EN TOTAL ACUERDO

26. A TODOS LOS ESTUDIANTES: Por favor usa este espacio y el otro lado para escribir cualquier otro comentario que desees hacer acerca de tu experiencia en el laboratorio.

APPENDIX B QUESTIONNAIRE IN ENGLISH

1. What lab section did you attend?

- a. Monday 1:30–2:20 (Reading/Listening Group 1—Section 070L)
- b. Wednesday 8:30–9:20 (Reading/Listening Group 2—Section 021L)
- c. Tuesday 9:30–10:20 (Reading-Only Group 1—Section 036L)
- d. Wednesday 12:30–1:20 (Reading-Only Group 2—Section 060L)

Consider the following assertions and respond as follows:

Questions for all groups.

2. I understood the purpose of the 5-minute “reading logs.”

COMPLETELY DISAGREE DISAGREE AGREE COMPLETELY AGREE

3. The “reading logs” helped me to see changes in my reading rate.

COMPLETELY DISAGREE DISAGREE AGREE COMPLETELY AGREE

4. The “reading logs” were an accurate measure of my reading rate in English.

COMPLETELY DISAGREE DISAGREE AGREE COMPLETELY AGREE

5. During the 5 minutes that I read for the “reading logs,” I was reading the text, not scanning the text.

NEVER ALMOST NEVER SOMETIMES ALMOST ALWAYS ALWAYS

6. I read the chapters before the day of the lab.

NEVER ALMOST NEVER SOMETIMES ALMOST ALWAYS ALWAYS

7. I enjoyed reading the book *Charlotte’s Web*.

COMPLETELY DISAGREE DISAGREE AGREE COMPLETELY AGREE

8. I found the language in *Charlotte’s Web* to be very easy.

COMPLETELY DISAGREE DISAGREE AGREE COMPLETELY AGREE

9. I learned something important from the book *Charlotte’s Web*.

COMPLETELY DISAGREE DISAGREE AGREE COMPLETELY AGREE

10. The story of *Charlotte's Web* was too childish for me.

COMPLETELY DISAGREE DISAGREE AGREE COMPLETELY AGREE

11. I had enough time to read the chapters assigned for the lab.

NEVER ALMOST NEVER SOMETIMES ALMOST ALWAYS ALWAYS

12. I understood the questions in the weekly quizzes.

NEVER ALMOST NEVER SOMETIMES ALMOST ALWAYS ALWAYS

13. The quizzes were very easy for me.

NEVER ALMOST NEVER SOMETIMES ALMOST ALWAYS ALWAYS

14. When I did not know the answer for the quiz, I guessed.

NEVER ALMOST NEVER SOMETIMES ALMOST ALWAYS ALWAYS

15. I scanned the book to answer quiz questions.

NEVER ALMOST NEVER SOMETIMES ALMOST ALWAYS ALWAYS

16. The work that I did in the English lab helped me improve my reading skills.

COMPLETELY DISAGREE DISAGREE AGREE COMPLETELY AGREE

17. While I read the book in the lab, I marked the most important parts.

NEVER ALMOST NEVER SOMETIMES ALMOST ALWAYS ALWAYS

18. While I read the book in the lab, I marked words that I did not understand or recognize.

NEVER ALMOST NEVER SOMETIMES ALMOST ALWAYS ALWAYS

Students that attended the "reading and listening" labs should continue with number 19. Students that attended "reading only" labs should continue with number 26.

19. The work I did in the English lab helped me improve my listening skills.

COMPLETELY DISAGREE DISAGREE AGREE COMPLETELY AGREE

20. Reading and listening to the book at the same time helped me understand the book better.

COMPLETELY DISAGREE DISAGREE AGREE COMPLETELY AGREE

21. Hearing the pronunciation in English helped me understand the book better.

COMPLETELY DISAGREE DISAGREE AGREE COMPLETELY AGREE

22. Reading and listening to the book at the same time helped me remember the book better.

COMPLETELY DISAGREE DISAGREE AGREE COMPLETELY AGREE

23. The reader on the CD read too fast.

COMPLETELY DISAGREE DISAGREE AGREE COMPLETELY AGREE

24. I can read faster without the CD.

COMPLETELY DISAGREE DISAGREE AGREE COMPLETELY AGREE

25. Reading and listening to the book at the same time helped me to read faster in English.

COMPLETELY DISAGREE DISAGREE AGREE COMPLETELY AGREE

26. TO ALL STUDENTS: Please use the space below and on the other side to write any other comments that you would like to make about your experience in the lab.