Online reading, audiobooks, and metacognitive strategies: EAP learners building listening proficiency and reading fluency

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Abstract

This study explored learners' autonomous strategies while using e-books and audiobooks outside class, supplementing their university academic English preparation. An extensive e-reading library with audiobooks was available for students to read and listen, online at home and elsewhere, with learners adjusting their modes of input according to their preferences. A survey of students in the first part of this study (n=126) showed 72% reporting that they found reading and listening simultaneously most helpful. This strong preference across a wide range of proficiencies was unexpected. Therefore, contrasting lower and higher proficiencies were focused upon in a second part of the study to learn if further distinctions might be found. This analysis showed learners' strategic preferences differed according to their current needs, and also that audio pacing adjustability played an important role. Some learners devised novel, useful strategies, and higher proficiency learners were, in some cases, no longer choosing bimodality (simultaneous reading and listening). Findings overall suggested metacognition and learner autonomy with a virtual library and ample choice may facilitate improved listening and reading, sustain motivation, and address some issues of language distance.

Keywords: Metacognition in language learning, linguistically distant languages, L2 reading and listening, audio and print reading strategies, EAP, online books and audiobooks

Introduction

University-bound newcomers to English-speaking educational systems face difficulties in academic and daily English environments (Navarro & Macalister, 2016; Ruegg et al., 2020; Shapiro et al., 2018; Zhu & Strauss, 2025). Factors such as linguistic distance between first languages and English, epitomized by crossing scripts (e.g., crossing from Japanese or Chinese character-reading to alphabet-reading) are

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prompting concern among researchers for their intense and enduring reading challenges for young adult and older learners, and associated challenges to motivation and persistence (Abadzi, 2019; Cheetham, 2019, 2023; Koda, 2008; Svensson, 2024).

Listening also presents considerable challenges for learners who have encountered English mostly as a foreign language through textbooks, with little unrehearsed English listening practice available in the surrounding environment (Chang et al., 2019; Lin, 2012). According to Ruegg et al. (2020), some research shows international students from distant language backgrounds facing severe and long-term English listening comprehension issues in New Zealand universities, missing significant portions of the information delivered in university coursework during their first years.

Literature Review

Extensive reading and listening, sustainability and transfer

Fluency in reading comprehension is usually considered foundational to university success, and a popular and effective fluency-building approach in recent decades has been extensive reading for L2 learners (Nation & Waring, 2020; Renandya & Jacobs, 2016; Zhou & Day, 2021). Evidence for reading improvement through the beginning with easy and entertaining books and moving up through grades of difficulty has been found in studies of online extensive reading as well, though more research has been called for (Bui & Macalister, 2021; Nation & Waring, 2020; Zhou & Day, 2021).

Meanwhile, a growing number of studies have investigated bimodal interventions (matching input for two senses). Renandya and Jacobs (2016) suggested "when ER and EL [extensive reading and extensive listening] are implemented together, their synergistic effect is likely to be far greater than the effect [of] ER or EL alone" (p. 108). An analysis by Singh and Alexander (2022) in a review article found numerous studies indicating that audiobooks and books, when paired, are helpful for reading comprehension of L2 English, especially for learners of English as a foreign language (EFL).

Particularly of interest: some studies of interventions with paired reading and listening for learners crossing scripts have shown sustainable reading and listening fluency improvements in delayed post-tests (Chang & Millett, 2014, 2015) and greater independence in academic work-life activities (Cheetham, 2023).

An important follow-up question regarding integrated input through bimodal reading and listening is whether listening fluency gains will transfer to unpractised materials in the target language as well. Chang and Millet (2016) found in a study with 76

university English learners in Taiwan (L1 Mandarin) that listening-while-reading 15 graded reader stories inside and outside the classroom improved listening skills in English among the students. They also found transfer to comprehending English in the "overheard conversation" style of tests, among students who had followed classroom reading and listening with approximately two hours weekly of outside-class listening. Listening practice with graded readers transferring to improvements in unrehearsed listening was found again in Chang, Millet and Renandya (2019) in a study with 69 college students doing extensive reading and listening, in this case with 28 books.

Metacognition, strategies and technology

Metacognition in language learning refers to an iterative process with learners consciously thinking about language learning, managing their learning with planning and choice-making, and following their activities with reflection and self-evaluation to set their next goals (Ambinintsoa, 2020; Benson, 2013; Cotterall & Murray, 2009; see Appendix A). Benefits of metacognitive awareness and proactive strategy use in language learning are appearing in research, especially connected with improved and sustained motivation (Ambinintsoa, 2020; Kessler, 2023).

Oxford (2016) has suggested that supporting metacognition and autonomy may be a key to fostering both learners' inventiveness and the opportunity to learn *from* them. The recent rise in mobile online language learning programs and increased research interest (see Kessler, 2023; Loewen et al., 2019) may facilitate these opportunities. Students can have more freedom, while teachers can more actively support their learning progress whether through advice or unobtrusive tracking (Bozorgian & Shamsi, 2022; Reinders & Benson, 2017; Robb, 2018).

A non-linguistic example which initially seemed humorous emerged during remote learning, with university students making use of online tools in ways teachers might not have considered. Murphy et al. (2022) found that students strategized for time-saving when their lectures were delivered in recorded formats during the COVID pandemic by setting their online lecture videos to play at higher speeds. Subsequent formal research, however, revealed that this strategy could indeed be effective for both learning and retention (Murphy et al., 2022). The researchers concluded that further studies incorporating subtitles, pauses for notetaking, student adjustment of pacing, and other variables should be undertaken.

A recent language learning study focused on metacognition, using English podcasts in Iran, found university student participants intentionally changing speeds, working on their weak points, and adjusting their strategies accordingly over the course of eight weeks. There was ongoing teacher-researcher support: provision of transcripts, suggestions of enjoyable content at appropriate levels according to participants' genre

preferences, weekly feedback, and reflective journaling. In this way, Bozorgian and Shamsi (2022) discovered that their participants enjoyed the mobility and flexibility of their online learning programs. They often preferred listening in physically active situations when their ears were free: "driving, doing the dishes, and walking" (p. 451), and reading the matching transcripts at other times. Questionnaire and interviews indicated listening skill improvements noted by the participants and strengthened motivation to continue.

The present study

Research to date offers evidence that extensive reading and extensive listening can be helpful in L2 (including linguistically distant language) learning, and that metacognitive strategies can support the learning process and motivation. Gaps in the research remain, however, regarding what strategies learners may find helpful with reading and listening, whether learners might find transfer to general listening proficiency, whether bimodal methods used autonomously support motivation, and whether effective practice methods remain constant, or vary according to individuals and proficiency. Current improvements in online extensive listening and reading, with greater pacing control for students, offer researchers opportunities for closer study of these unknowns. The purpose of the present study therefore was to investigate reading and listening strategy choices by young adult English learners crossing from linguistically distant L1 languages using mobile online books and audiobooks, with attention to possible listening transfer, motivation, and proficiency correlations.

The research questions were:

1. What strategies with e-books and audiobooks would learners find most helpful?
2. Would learners notice improvements in listening to English outside their audiobooks?
3. Would motivation be sustainable?
4. Would learners' chosen strategies show any correlation with their proficiency levels?

The study took place in two parts, drawn from a larger research project focused on reading rates and standardized testing. Part 1 investigated for learner preferences when reading and listening, changes, if any, participants might notice in their listening skills, and their motivation. Part 2 focused on participants with contrasting English proficiencies, to investigate for possible distinctions and reasons for their strategies (Creswell, 2022) which might clarify the results in Part 1.

Methods

Participants

The participants in the present study ($n = 126$) were mostly between $18 - 21$ years old, and nearly all were educated in Japan. Three students from mainland China and Taiwan were, like the Japanese students, crossing from languages with different writing systems (i.e. crossing scripts) to prepare for first-year undergraduate liberal arts in English. Five nontraditional-age students shared the same educational background and context. All had studied English in the past, though proficiency ranged widely from TOEFL ITP scores below 350 points (high-beginner level) to 500 points and above (admission-granting level for many English-using universities).

Program

The study took place in an English for academic purposes (EAP) program in Japan. Courses ran for approximately fifteen weeks and five days a week, with academic ESL skills-building textbooks. Participants were in small (< 20), intact 85-minute classes, which were held in-person. All classes in the present study followed the set curriculum and the research activities were supplementary.

Ethics

The present research was introduced to the students with transparent explanation of purpose and method, for fully informed consent. In accordance with Institutional Review Board rules for protection of identities and personal information, and with no influence on grades, the students' voluntary participation was requested, with withdrawal also protected at any time. Consents were received and covered 12 intact classes. The study author was also the instructor in all participating classes, supporting consistent data collection through trimesters October 2018 to December 2019.

Materials

For a meaningful study of learner choices, strategies and preferences with reading and listening, particularly across a range of proficiencies, ample book choice is critical. A well-designed online library with the majority of reputable graded reading publishers' books and audiobooks, Xreading.com, provided access to over 1,000 books of many genres to every student through an institutional subscription (Nation & Waring, 2020). The books and audiobooks extended from beginner to near-academic levels, and included functions such as individually adjustable audiobook-playing speeds, reading speed tracking visible to the learners, listening time tracking, and records of the books the learners had chosen.

A research logbook was used to record activities, progress, student feedback received orally, and observations, and to maintain consistent support while meeting the goals of each class (Reinders & Benson, 2017). Post-surveys (on paper) about the intervention were distributed just after completion, with space for short answers and comments (Appendix B).

Introduction to students: Metacognitive approaches and bimodal customizing

The author presented recent research which had found that bimodal reading, making use of audiobooks together with print, may be helpful for improving reading and listening fluency (Chang & Millet, 2014; 2015; Walter, 2008; Woodall, 2010). The author also explained that some researchers had suggested that separating listening and reading sessions as needed might still be helpful (Isozaki, 2018; Prowse, 2002).
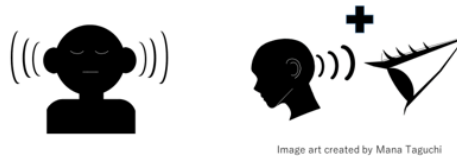
Figure 1

Suggested reading and listening strategies
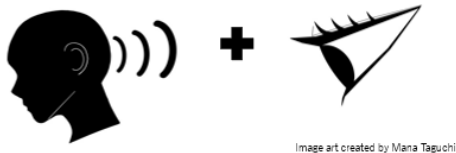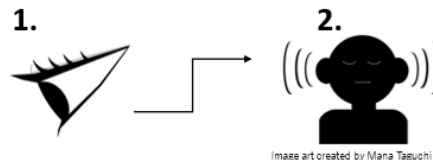
Strategies developed with student feedback in previous exploratory studies were then introduced (see Figure 1), followed by guidance to find each learner's most comfortable condition. This was carried out in class by log-ins to Xreading, checking out and opening books at the easiest level, and learning to use the functions. Different mono-modal (listening only, reading only), bimodal, and adjusted audio paces (faster, slower) were tested out together. Students were given time to reflect, writing their feelings about each mode, evaluate, and choose the reading and listening conditions

which best fit each of them. The students were then encouraged to experiment further while reading their next books outside class on their own devices, and choose other methods as desired.

Tracking, transparency, triangulation and feedback

Tracking of progress, time spent reading, and other information on Xreading was accessible and used by the students over the following weeks to evaluate their own progress and to reflect on their strategies as they considered their next choices. The author saved the tracking information as well, and triangulated this with learners' feedback about their reading-listening experiences and their books.

Participants were asked to answer post-surveys about the intervention just after completion. The survey questions for the present study required between three to five minutes. In Part 1, responses were counted and analysed manually and entered into an Excel spreadsheet for digital analysis and confirmation. Written responses in surveys and other feedback were also read and tallied manually, transcribed from handwritten form to digital (Microsoft Word) and analysed, then organized by keywords and grouped according to recurring themes for further analysis (Creswell, 2015; Dornyei, 2007). In Part 2, the results and analysis were revisited with smaller data sets (see Figure 2) from comparative classes and individual participants. Logbook notes were referred to for triangulation with survey responses and Xreading data.

Figure 2

Research Design: Metacognitive reading and listening intervention within an EAP curriculum
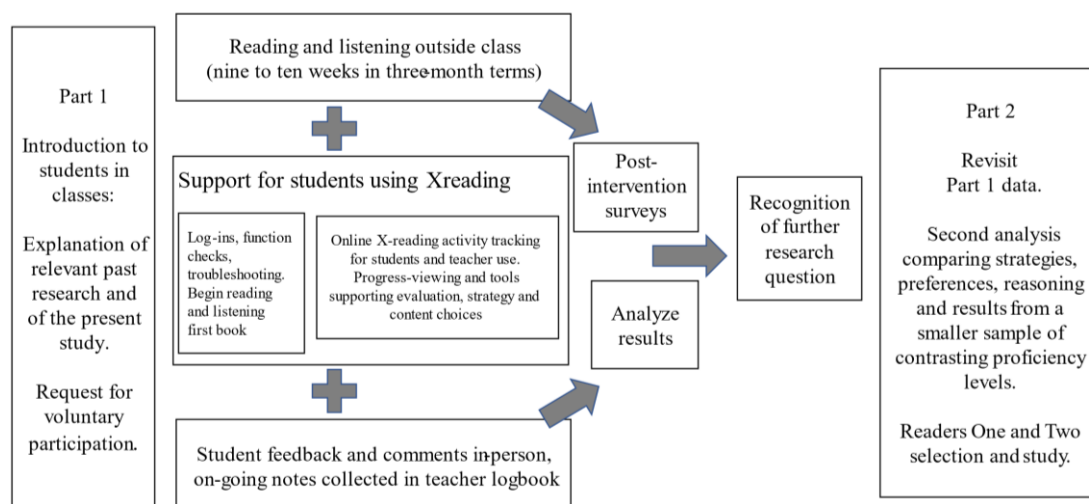
Results: Part 1

What strategies with e-books and audiobooks would learners find most helpful?

At the end of the intervention, students were asked: "How did you listen and read?" and, for confirmation of preference, and reasoning if they chose to share more, "Which way was best for you, most of the time? Why was it the best?"

Length and challenge of extensive reading books varies by graded reader levels. While increasing from beginner to more advanced levels, however, most participants completed at least a dozen, and usually closer to two dozen titles, ensuring that their preferences were based on reasonable engagement. The responses showed that a majority (72%, 91 students) had found simultaneous input most helpful, while 14% (18 students) chose listening first, then reading. A smaller group, nearly 9%, preferred to read first, then listen (11 students). Silent reading alone was preferred by 2.4% (three students) (See Table 1). The high majority preference for simultaneous listening and reading was unexpected; previous research had found learners addressing mismatches between their reading speeds and an audiobook's pace by separating their reading and listening sessions (Isozaki, 2018).

Table 1

Post-intervention strategy preferences (n = 126)

	Number of students (percentage %)
Preferred simultaneous input	91 (72%)
Preferred listening first, then reading	18 (14%)
Preferred to read first, then listen	11 (8.7%)
Preferred silent reading	3 (2.4%)

Would learners notice improvements in listening to English outside their audiobooks?

The students were asked if they noticed any transfer to improved ease in understanding other English listening, away from their matching books and audiobooks. Listening improvements were noted by 85.7% of the participants (108/126) in response. Some distinctions were found between members of the lower and higher-proficiency classes.

Responses from lower-proficiency students spoke of perceived improvements, but sometimes with hesitation (e.g.: "listening English is very difficult by myself" and, from another, "I changed a little listening skill.") A few illustrated in what ways they

felt transfer to unsupported listening: "I noticed that I can listen a little more British English" or, from another, "When I watched movie I [mostly] heard."

Contrasts were found among responses at the higher proficiency level: Stronger listening stamina, ("a little used to hearing the long lecture"), reporting listening comprehension at higher speeds, and "easier" were consistent responses. Others reported noticing more listening ease in "overheard" situations:

> "Before, I could not understand foreigner's accent, but now, I can understand what they are talking about."

> "I feel I can understand native people's English speaking better than before"

> "I could catch conversation between other countries' people in the train, or other place a little."

Would motivation be sustainable?

Participants were asked if they would "want to listen to another English book in the future?" The wording was designed to learn whether the bimodal experience had been positive enough that they might try it again under their own initiative. One hundred twenty answered "yes," resulting in 95.2% positive replies (120/126), in line with strong findings in a listening-while-reading study by Kartal and Simsek (2017).

Would learners' chosen strategies show any correlation with their proficiency levels?

Questions which arose from the cumulative data results reported in Part 1 prompted Part 2 of the present study; the cumulative data was re-visited and analysed with smaller, contrasting data sets.

The procedure for Part 2 was the same as that of Part 1, as the data was collected concurrently. In Part 2A, lower-level and higher-level proficiency groups were compared, seeking their strategies, preferences, reasons, and results. Part 2B selected individual participants amongst the lower- and higher-level classes, and their strategies, preferences, reasoning and results in more detail.

Results: Part 2A

Contrasting classes

To learn more about the unexpectedly high preference found for simultaneous reading and listening, this research question was addressed by returning to the data and comparing two lower-level classes with two higher-level. The class levels were determined by TOEFL scores prior to the beginning of the trimester: the lower-level classes had TOEFL ITP scores ranging from about 340 to 450 points ($n = 23$), and the higher-level classes ($n = 20$) had scores from about 420 to 510 points (rounded for participant privacy). For these comparison classes, during-intervention exploration of different strategies was checked, and the students' final preferences were re-examined for possible trends addressing the research question (see Table 2).

Lower levels

Nine of the 23 students in the lower-level classes reported experimenting with different combinations of reading and listening while they did extensive reading online (39%). At the end of the intervention, final preferences for 21 of the 23 participants were, however, for simultaneous reading and listening (91%), though all were reading faster than at the beginning. Three members of the lower-level classes added notes in their surveys: "20% faster." When asked what these notes meant, the students explained that they were now adjusting their audio pace higher, usually by 20%. This clarified how they continued simultaneous reading and listening while they had also been improving their reading speeds.

Higher levels

The 20 higher-proficiency students experimented with alternate strategies considerably more, with 70% experimenting. These students showed a small trend toward separated input in final preferences (30%, six students). The majority 70% (14 students) preferred making continued use of simultaneous reading and listening as they neared reading and listening fluency, and all 20 showed improved reading speeds.

Table 2

Experimentation and final preferences at comparative English proficiencies

	Lower level	Higher level
Number of students (n = 43)	23	20
Reported trying different strategies	9 (39%)	14 (70%)
Final preference: Reading while Listening	21 (90%)	14 (70%)
Final preference: Separated reading and listening	2 (8%)	6 (30%)
Reading fluency (speed) improved?	Yes (n = 23)	Yes (n = 20)

Reasons for final preferences

Comparatively, the lower-level students chose simultaneous reading and listening 21% more than the more proficient classes' members. Their reasons included the desire to connect printed and spoken English, learn pronunciation and consolidate vocabulary, support focus and improved reading pace, and deepen comprehension and "imaging" of stories while practicing reading and listening together. Those who preferred to separate sessions of listening and reading wrote that they wanted to focus on improving one skill first.

The higher-level students shared similar reasoning for separating modes; to target specifically to one skill at a time, or to pace reading and listening independently. The majority who chose simultaneous reading and listening, however, reported that they were using it to reinforce and integrate reading and listening skills and to deepen comprehension, visualization, and to improve their reading speeds.

Results: Part 2B

Example profiles at contrasting levels

Two participants were selected as representatives of the EAP lower and higher levels (see Part 2A), and for the comprehensive detail shared in their on-going feedback.

Reader One (lower level): Developing an original strategy with repeated bimodal reading

This student had little experience with extensive reading in English and none with audiobooks before, and he reported that his English reading comprehension relied on translation. According to Stephens (2024), this process skips phonological activation and thus sacrifices learning to connect the spoken and written forms of the target language. He mimed this by gesturing to a page, showing his switching between the languages there, and then bringing the now-Japanese meaning to his mind. On the Xreading website, several books were visible as begun but unfinished, with little audio use. Based on past student preferences and strategies, the author suggested he try familiarizing himself with his chosen stories by just listening first, and then to follow that by reading while listening. Within a few days the online records showed that he was completing books, but also showed unusually lengthy times on the audio. Wondering if this indicated difficulties, the author asked about this, and learned that he had created a new method for himself. First, he set audio slower while

simultaneously reading a book. Then, a second time through, he set the audio faster and read again, finding that he could also understand the stories better (see Figure 3).

Figure 3

New strategy: In May at bottom (repeated reading and listening), and July (once through)

Image sourced from Xreading.com, adapted and reproduced with permission. Copyright XLearning Systems, 2025

This student continued with his chosen strategy and seven weeks later, he reported he could complete books and understand well by reading and listening a single time through. In all, he completed 15 books, within expectations for participants at his level, despite his delayed start. While in May, a 31-minute audiobook showed slightly more than 97 minutes of playing time, in July a 30-minute audiobook showed approximately 35 minutes of use. His listening time investment, in total, was approximately eight hours, and his reading speed had tripled (words per minute: w/m in Figure 3, above). He commented that he felt he had been able to understand more during his term-end TOEFL (English) exam. When scores were released, his point-rise was more than double the statistical margin for error (ETS., n.d.). He was also overheard recommending a favourite author to classmates: "I like Sue Leather more." His strong grasp of the virtual library's offerings and willingness to recommend authors might, possibly, be interpreted as showing a new confidence and sense of himself as a reader.

Reader Two (higher level): Advanced strategies and metacognition for fluency

Reader Two was a student with more experience of English reading, in a higher-level class, who was consolidating his skills and reaching near-academic reading. Discussing the methods he had most recently adopted, he said:

> First, [I] imagine how the story will [be, and] read fast, not every word –
> skimming... find the important parts and I take time for deeper understanding –
> so, notice where to read slowly. … [Then, strategically] Choosing key chapters
> to read and listen at the same time... [Finally, continuing his immersion process]
> At home – listening before going to bed – Xreading, news, radio, comedians –
> just listening.

By intentionally alternating his reading and listening pattern according to his focus for practice, he varied his input to build efficiency, while he ensured his grasp of the content. He shared that in his free time he had begun independently enjoying comedy and other programs in English online, and was preparing for full time studies in the major of his choice in the near future.
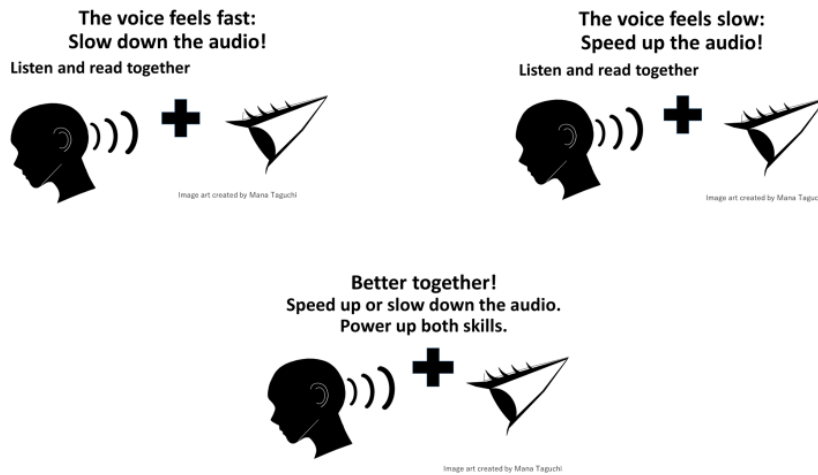
Independently from the author's suggestions, and consistent with recommendations in Padberg-Schmitt (2020), Reader One made proactive use of adjustable audio together with reading. He increased his reading pace with his own method, and seemed to find pleasure as well as growth in proficiency. Both Readers One and Two showed creativity with strategies, as suggested by Oxford (2016), and calibrated their methods to match and improve their comprehension, emphasized in Murphy et al. (2022) for effective learning.

Discussion

Investigating the research questions revealed some unexpected findings and potentially informative distinctions. Considering the wide differences in proficiency in the present study, preferences for separating inputs were not as pronounced as expected based on previous studies (Isozaki, 2018). Lower-level classes were generally less likely to seek a change from reading and listening together, and higher-level class members showed more readiness to experiment with various methods. When viewing other measures of improvement, however, both lower levels and higher were making use of paired input at unexpectedly high rates. Their changes in fluency might have exceeded comfortable pairing of the two input modes, if, as reported in Gobel and Kano (2014), the students were using CDs with rather low speeds, which was one issue prompting Gobel and Kano to call for online listening and appropriate technology for learners (p. 291). The use of adjustability by learners in the present study may have contributed to longer periods of enjoyment and experimentation with bimodal reading and listening, and may show consistency with Takeuchi's findings that successful language learners are likely to make "a shift in their strategies according to their learning stages" (2003, p. 391), and Gorsuch's observation that extensive reading with audio offers students the opportunity to "begin using learning strategies" (Van Amelsvoort, 2022, p. 39) (See Figure 4).

Figure 4

Listening and reading strategies most chosen, across skill levels

The voice feels fast:
Slow down the audio!
Listen and read together

Image art created by Mana Taguchi

The voice feels slow:
Speed up the audio!
Listen and read together

Image art created by Mana Taguchi

Better together!
Speed up or slow down the audio.
Power up both skills.

Image art created by Mana Taguchi

An unanticipated development which did not fit the research questions, but which involves a great deal of unconscious strategy deployment (Rouet, 2006) may point to areas for future research on connections between growing literacy skills, strategies in information searching, and sustainable motivation. Partway through the intervention, a participant shared that she was newly and reliably able to locate her place again on a page, when returning to a book or e-book partway through. Working memory issues for information search when reading have been discussed by Rouet (2006): Readers need a "mental representation of the objective. ... people often stumble on search tasks because ... it requires an active effort to hold in mind information while being permanently challenged by incoming new information" (p. 189). Rouet adds that "These skills ... are … compulsory elements of functional literacy" (p. 189), particularly online.

Though anecdotal in the present study, this seemingly straightforward accomplishment is helpful with motivation to re-open a book, and to find one's lines from which to continue reading, or to show a passage to another, and is particularly challenging when reading books in a foreign script (Abadzi, 2019). Takeuchi et al. (2012) confirmed via brain imaging and interviews that using strategies like this, searching and scanning in an L2 script language, requires more working memory compared to strategy use while using one's first language literacy. In the present study, an L1 Japanese reader who was reading print and e-books in English noticed her improvement. It may be interesting in future studies to investigate if bimodal interventions with extensive reading and

listening across distant languages can bolster verbal working memory for skills like information search, and when such improvements may appear.

Listening to other English

Learners studying linguistically distant languages they do not hear in their environment sometimes wonder if their practice will transfer to situations outside their textbooks. Furthermore, a recent study involving a highly gamified mobile language learning program found participants strongly doubting whether their online practice would carry through to real life (Loewen et al., 2019). Considering such justifiable concerns, the present study sought to learn if listening ease might improve in new, unpractised listening conditions. Post-intervention surveys showed a majority of participants indicating improvements found in unsupported listening, consistent with results in Bozorgian and Shamsi (2022), in which autonomous listening practice was found helpful for increasing independence. Other studies which have used bimodal extensive reading and focused on listening changes have shown significant empirical results in listening comprehension compared to control (Kartal & Simsek, 2017) or comparison groups (Chang et al., 2019). Given good quality and variety, extensive listening presented bimodally may help address a crucial aspect of listening proficiency; applicability outside textbooks or "learning apps".

A related point of interest was discussion of accents. A participant's comment, "I could become familiar with different accent of English," tentatively concurs with Bozorgian and Shamsi's finding that among the motivating benefits of extensive listening for their EFL students were opportunities to get used to more varieties of English (2022).

Motivation, metacognition and strategy correlations

Reading enjoyable stories with listening support can help learners stay motivated to continue through the challenging pre-fluent stages of English as a foreign language, according to Chang and Millet (2016), and these factors may have helped the participants in the present study to read and listen sufficiently to develop metacognition about their strategies, notice changes in their skills for themselves, and maintain motivation to continue in the future.

Contrasting lower and higher level classes highlighted trends which were less visible in the overall results. Reasoning for some strategy choices, such as choosing to work on weak points, became more apparent across levels as well. Language learner autonomy research has found connections between metacognitive strategy-use and stronger "persistence" and development of "sustainable motivation" (Ambinintsoa, 2020, p. 154; p. 215); both crucial for choosing to work on weak points. Sustainability

might be found in a variety of ways, however, including *not* having an intention to continue the intervention activities. One possible example was a "no" reply to the survey question about listening to more audiobooks in the future, which was counted (and retained) as a negative. This student had developed his silent reading to near-target reading speeds for fluency (Nation & Waring, 2020). He wrote that he had become confident in his reading fluency, with exclamation points added, and commented, "I don't begin to feel struggling when I'm reading."

Findings of different approaches necessary for different levels (Chang & Millett, 2016), and participants at lower and higher proficiencies changing strategies with credible reasons suggest that attention to materials quality, motivation, and teacher flexibility with learner variation are merited together in extensive reading and listening fluency interventions.

Limitations

A number of important limitations affect the interpretation of results for each research question, as well as conclusions for the whole. First amongst the limitations was that the researching author was also the instructor, and this could have influenced some participant feedback despite assurance, evidence and transparency. Bias may unintentionally have resulted and therefore results must be considered with caution. Secondly, the absence of control groups for the research questions of the present study is a significant limitation. It is possible that other activities might have offered equal or greater benefits. Third, more frequent data collection on strategies, such as biweekly, would strengthen future research on learners' evolving choices. Next, regarding listening, only 85.7% of participants noticing improvements remains a concern, and further study is needed to find more effective methods for the nearly 15% who did not consciously note improvements. Similarly, among the nearly 5% who did not "want to listen to another English book in the future," while some clearly indicated that their gains resulted in independence and no longer desiring simultaneous input, others may not have been able to find fitting conditions, or needed more support. This is a priority to address in future investigations.

Moreover, the results must be considered specific to the setting and these students. In the present study, with intact classes, the intent was ecological validity and focus on the strategies the students chose or devised. These participants had intentionally chosen a challenging intensive English program and were diligent and committed; any suggestions of generalizability may not be justified.

Though therefore outside the scope of the present study, questions of potential generalizability remain important. Future, larger research studies with more frequent data collection, control groups, and greater statistical and qualitative analysis would help to address the present limitations. As Serrano (2023) states in a recent reading-while-listening research article:

> The complexity of classroom-based research … underscores the importance of collaboration among L2 acquisition researchers, practitioners, and L2 learners in generating insights with practical implications for language education. Such collaboration has the potential to bridge the gap between research and teaching practice, ultimately leading to more effective support for L2 learning. (p. 12)

Conclusion

Autonomy and thresholds

The participants in the present study, by reading online while customizing audio pace and developing other strategies, may have provided support for Oxford's (2016) contention that metacognition can stimulate ingenuity in language learning. With individual control of methods, the learners demonstrated effective use of listening and reading, and noticed their fluency gains. Among the higher-level students especially, indications of thresholds being reached, followed by new strategies such as separating input, suggested growing linguistic confidence. Across levels, participants showed evidence of using their practice to build critical mass in "forward momentum" (Seidenberg, 2017, p. 164), followed by appropriate adjustments or changes.

The fluency-building insights of extensive reading, that language learners should begin with easier stories and choose higher levels as they improve, with focus on quantity and enjoyment (Nation & Waring, 2020), were in evidence, as were previous findings indicating that fluency in reading and listening can be facilitated still further with audiobook support (Chang & Millet, 2015, 2016; Singh & Alexander, 2022). Increased supplementation in EAP programs with engaging bimodal books is tentatively recommended, especially for language learners crossing scripts, as is further research into potential thresholds of change and learners' preferred strategies at these points.

Literacy backgrounds, crossing scripts and accessibility for language learners

Challenges and pre-fluent plateauing for university-age and older language learners with large linguistic distance and script variations to cross in reading and for university success, as for the learners in the present study, have concerned researchers (Abadzi,

2019; Cheetham, 2019, 2023; Koda, 2008; Ruegg et al., 2020; Svensson, 2024). Interesting, enjoyable bimodal books and audiobooks may, potentially, help address some of the accessibility issues for learners crossing these distances between their languages. The EAP study participants' motivation and willingness to continue in the future with their English extensive reading and listening is encouraging, and further research, especially longitudinal studies investigating for sustainable listening and reading fluency, is recommended.

Ethics statement

The present research study and data collection was conducted according to the Institutional Review Board guidelines of Lakeland University, 2018-2023, and respected the privacy and confidentiality of the participants involved.

Funding or conflicts of interest: None

Acknowledgements

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Appendix A.

A concise overview of metacognitive, autonomous language learning in practice may include learners being able to do three things:

1. Know useful ways to learn,
2. Have and make use of choice (for example, of content and strategies), and
3. Evaluate their own progress, reflect, and choose their next tasks and strategies.

(Ambinintsoa, 2020; Benson, 2013; Cotterall & Murray, 2009).

Appendix B.

Strategies questions, listening transfer, and future planning questions sourced and adapted from Isozaki (2018).

How did you listen and read?
Did you try listening and reading at the same time?
Did you try listening, then reading later?
Did you try reading, then listening later?
Which way was best for you, most of the time? Why was it best?

Has the project helped with any of your other English listening?

Do you think you will want to listen to another English book in the future?