The Power of p-books in Extensive Reading in Japanese

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This study examined students' preference for either paper books (p-books) or e-books in extensive reading in Japanese as a foreign language. The data were collected by administering a survey in the Japanese Extensive Reading classes at the University of Massachusetts, Amherst (UMass), and Mount Holyoke College (MHC). Each institution differed in their instructional environments and resources. The participants consisted of 70 students from two universities. Both institutions had access to the same number of available e-books, while UMass had 600 more p-books than MHC. Regarding the instructional environments, students at UMass had access to their own electronic devices, whereas students at MHC had access to a number of computers in class as well as their own electronic devices. The survey results from both universities showed a significantly stronger preference for p-books over e-books regardless of the different learning environments and available resources.

Recently, many institutions have adopted extensive reading (ER) as a method to enhance teaching Japanese as a Foreign Language (JFL), and its effectiveness in multiple languages have widely been reported in a number of studies in the past decade (Kumada & Suzuki, 2015; Day & Bamford, 1998; Hitosugi & Day, 2004; Mikami & Harada, 2011; Yoshimura & Kobayashi, 2018). ER in Japanese language education specifically focuses on the four principles: 1) starting from the easiest level, 2) reading without using a dictionary, 3) skipping when a reader cannot understand, and 4) choosing other books once a reader cannot go forward (Awano, Kawamoto, & Matsuda, 2012). As the word "extensive" implies, the success of ER is deeply related to the amount of reading, which differs from a regular intensive Japanese reading course in which the students take time to read a small number of texts line by line while using a dictionary. In contrast, students in ER are expected to read for pleasure as much as possible by choosing books based on their interests and within their comfort level of language difficulty. Book selection is the initial step in ER, and it is the key component for learners to be successful in ER so they will keep reading extensively and fluently without using a dictionary. Book selection is, however, difficult for ER beginners because it is hard to know what they can read in a foreign language without using a dictionary. On the other hand, the process of book selection is enjoyable for students because they have independence and freedom to choose what they read, which is a new experience for them unlike using a predetermined textbook. Book selection in ER provides an opportunity to choose either paper books (p-books) or e-books in general. With a rapid increase of e-books, fewer college students read p-books nowadays. However, the situation is quite different in the Japanese ER class. The majority of these students enjoy reading p-books in class even if they have access to

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the same content via e-books. The current study examined how and why students prefer p-books in the ER environment.

Overview

p-books vs. e-books

A number of ER studies have been produced in the past 15 years in the field of JFL. These studies have reported effective ways to introduce ER into a Japanese language class, the effects on vocabulary growth, learners' motivation, and popular Japanese books learners often select to read (Hanabusa, 2015, Ninomiya & Kawakami, 2012, Kumada & Suzuki, 2015, Fukumoto, 2004, Matsui, 2014, Yoshimura & Domier, 2017). In contrast, very few past studies have looked at students' preference over p-books and e-books in the ER learning environment, particularly in the field of JFL. There are, however, studies that have examined the influence that the p-book and e-book distinction has over reading speed and reading comprehension as well as subjectively assessed comfort level in reading in the fields of library research, psychology, and information processing. Revelle, Messner, Shrimplin, & Hurst (2012) showed that most college students have a clear preference for either p-books or e-books regardless of their content. The study showed that 60% out of 735 participants preferred p-books, while 23% preferred e-books. The former group includes Book Lovers, who have a strong attachment to paper-based media, and Printers, who have difficulty reading without traditional print. The latter group includes Technophiles, who like the convenience of e-books. There was also 17% of Pragmatists, who are most neutral about the format of books, and value the content and not the medium. Another study examined physical readability and reading speed by comparing the uses of p-books, iPads, Kindles, and laptop PCs, and showed no difference in reading speed among the four media, but p-books were most favored for their ease of flipping pages (Takano, Ômura, & Shibata, 2011). Another study using a memory test and a comprehension test, in addition to reading speed and subjectively assessed comfort level as factors, showed p-books outperformed iPads in three factors, but not in reading speed (Kobayashi & Ikeuchi, 2012). To summarize these previous studies, it is difficult to conclude that p-books are superior to e-books in promoting efficient and accurate reading; however, there is a strong tendency that readers prefer p-books to e-books from their own subjective points of view.

Information Retrieval and Information Seeking

The initial step in ER is book selection, as readers have a choice of either p-books or e-books. The process of book selection involves two major ways: information retrieval and information seeking. A general definition of information retrieval is an activity to retrieve information by using databases systematically. One may use queries in a search tool to obtain information in information retrieval because she or he already knows what to look for. On the other hand, information seeking methods do not use a systematic database or search queries (Japan Society of Library and Information Science, 2007). One may stand physically in front of books, check them by hand, turn pages, judge information, and move to the next information-seeking activity as needed. This is called *berrypicking* in the process of book selection, in which readers do not use any specific queries but follow their interests to find book(s) they want to read (Bates, 1989). Berrypicking tends to take place more often in p-book seeking because various tactile information is quickly accessible (Foster &

Ford, 2003). In the process of book selection in ER, learners need to consult with themselves about a variety of things such as their reading ability in the target language, their interests in contents, and their tastes in visual images that are used in books. Therefore, information seeking naturally fits the process of book selection in the ER context, because the berrypicking method is useful for learners to look for p-books.

Research Questions

We used the following research questions to examine students' perceptions of book selection and their preferences over p-books and e-books in the paradigm of ER in Japanese.

1. Do students prefer p-books or e-books when both are available?

2. What factors influence students' choice of books?

3. Do environmental differences in the reading space have any influence on book selection?

Method

Participants

The participants in this study consisted of 60 students in the ER class at UMass in the semesters of spring 2016, fall 2016, and spring 2017, and 10 students in the second-year Japanese language class at MHC in fall 2016. The ER class offered from UMass was open to students at other nearby colleges via video conferencing without commuting to UMass. The analysis included 43 students from UMass, and 17 students from MHC who participated in the UMass ER class via video conferencing, plus another 10 students from the second-year Japanese class at MHC, with a total of 70 students. These students from UMass and MHC ranged from first-year to fourth-year students. Many of them were also enrolled in the traditional Japanese language classes, whereas some students were taking the ER class only. All participants agreed to participate in the study, and we received their consent to participate in research using the research participation consent form approved by the University Internal Review Board.

Procedures

Students in the UMass ER class and the MHC second-year Japanese class both selected books to read based on their interests and their reading levels. Book selection sometimes took place based on recommendations from the librarian, teachers, or classmates. The books students were allowed to choose included any e-books available online, including audio-based books, any p-books available in the library or in the Language Resource Center (LRC), and any p-books students personally owned. All students were asked to keep a weekly reading journal which asked them to provide information about the book or books they read and a short impression of each. They were also asked to respond to a survey at the end of each semester. The survey included questions about preferences for p-books and e-books, and the reasons behind them. Some questions consisted of multiple-choice questions, and others were checkbox multiple-answer questions that allowed multiple selections rather than just one. Responses in multiple-choice questions were analyzed by percentages, while checkbox multiple-answer questions were analyzed by the total number of responses. The data from students' book journals also used percentages over the total entries from the book journals.

Environmental Differences in ER Classes

The current study compared the three different groups in different learning environments in Japanese ER classes (Table 1). The first group consisted of UMass students taking the ER class at UMass. The second group consisted of MHC students taking the ER class held at UMass via video conferencing connected from their home institution. The third group also consisted of MHC students, but they came from the second-year Japanese class at MHC, where they had the ER sessions as a part of the course curriculum. The first two groups followed the same syllabus by meeting once a week for 50 minutes as a class, but the physical learning space and the number of available p-books differed between the two groups. UMass students participated in class from the UMass library, while MHC students gathered in the LRC at MHC as a group to participate in the same class via video conferencing. The LRC had twenty computers available (a larger number than that of the students enrolled), and MHC students read books while being surrounded by computers as well as having access to their personal electronic devices such as tablets and smartphones. Students at UMass in the library had access only to their personal electronic devices. The number of e-books available was the same for the two groups, but UMass had approximately 600 more p-books available in the library than MHC had in its LRC where students gathered for reading. The actual number of Japanese books available at MHC was less than 300, including all levels of Graded Readers, picture books, manga/comic books, novels, etc. The third group with MHC students also had the same number of p-books available at MHC, and they had 45-minute ER classes nine times per semester. The main difference between the first two groups and the third group was that the students in the third group received more intensive information about how to search and use e-books to compensate for the low availability of p-books in Japanese. The second-year Japanese class at MHC also took place

Table 1. Information about Participants and Their Learning Environment

Class environmental differences	*Groups of participants*		
	Group 1: *UMass ER class (43 students)*	*Group 2:* *MHC students taking UMass ER class (17 students)*	*Group 3:* *MHC students in Japanese class (10 students)*
Class time	50-minute class per week	50-minute class per week	45-minute ER classes, nine times
Class location	Library with 2 desktop computers, face to face	LRC with 20 computers, class participation via video conferencing as a group	LRC with 20 computers, class participation via face to face
p-books	More than 600 p-books for ER	Fewer than 300 p-books for ER	Fewer than 300 p-books for ER
How to find e-books	1 or 2 10-minute library sessions per semester	1 or 2 10-minute library sessions per semester	4 to 5 library sessions and individual guidance per semester

in the LRC with the same electronic devices as described earlier.

Results

p-books vs. e-books

To answer the first research question, we asked the question in the survey, "Which format do you prefer when both electronic books and paper books are available?" to examine students' preference between p-books and e-books. The multiple choice options include p-books, e-books, and no preference. The results of the survey include data from three semesters: spring 2016, fall 2016, and spring 2017. The numbers of students who responded to the survey were 43 in Group 1, 17 in Group 2, and 10 in Group 3. The results showed that students in Groups 1 and 3 significantly preferred p-books (90.7%) over the other two choices of e-books or no preference, X^2 (2, N = 43) = 64.23, p < .01. Students in Group 2 also significantly preferred p-books (88.2%) over the other two choices, X^2 (2, N = 17) = 23.06, p < .01. Students in Group 3 showed a similar pattern of significantly stronger preference for p-books (90.0%) over e-books (10.0%), X^2 (2, N = 10) = 14.60, p < .01, (Figure 1). The results indicate that the majority of students prefer p-books over e-books regardless of the availability of p-books in the ER classroom. As was mentioned earlier, students in Groups 2 and 3 had access to a limited number of p-books, and students in Group 3 repeatedly received information about how to search for e-books using the library system. In addition, students in Groups 2 and 3 had the ER class in the computer lab, where they had free access to any electronic devices available. Despite such an electronically rich environment, students in Groups 2 and 3 still preferred p-books over e-books.

Why do Students Prefer p-books?

The second research question was to find out the reasons for the results shown in Figure 1. We asked the multi-answer question, "If you chose paper books in the previous question, please give us your reason(s). Select all that apply." The results showed several reasons that may explain why students preferred p-books (Figure 2). Some reasons were related to students' preference for the tactile sensation of paper, such as the physical feel of paper, the feel of book weight, the excitement of turning pages, and the smell of paper. Other noticeable reasons were readers' subjective assessment that p-books should provide better reading comprehension than e-books. Many students felt that they would read easier and faster, as well as understand, and memorize the content better with p-books than with e-books. They also thought that

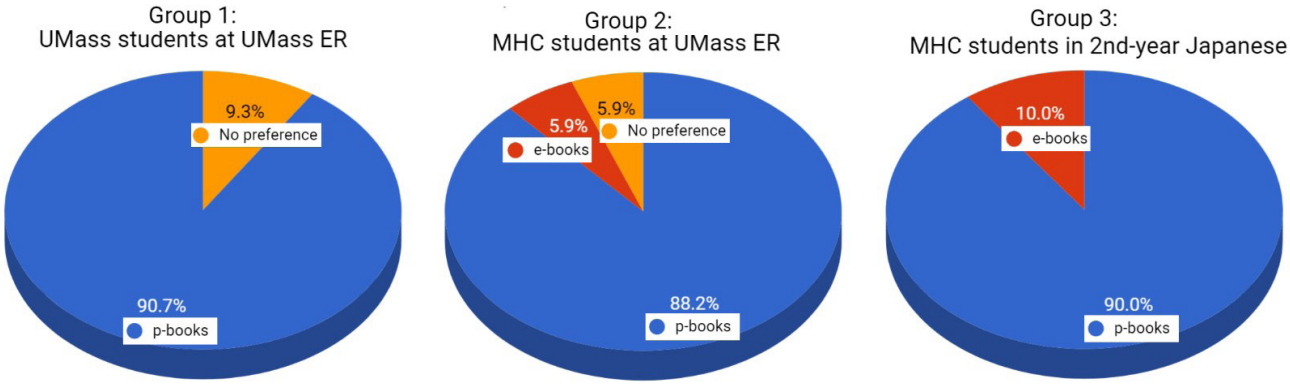

Figure 1. Preference for p-books or e-books

reading on the screen made them more tired compared to reading p-books.

These results are based on the self-reported responses, and they do not describe the actual fatigue arising from reading e-books. However, it is important to note that their subjective assessment about e-books contained a somewhat negative element that did not reflect their daily habitual use of electronic devices (Perrin & Jiang, 2018; Rubino, 2018; Yoshimura & Shiomi, 2016). The results are also consistent with the previous studies mentioned earlier by Revelle et al. (2012), and Takano et al. (2011). Mesureur (2013) also mentions that their students reported "Finishing an e-book provides no physical gratification, as opposed to turning over the last page of a paper book and finally closing its cover" (p. 318). Our students also found it exciting to turn pages by hand, and they thought it was easier to find the page they finished last time to restart reading (see Figure 2 for details). These subjective but positive assessments of p-books may be particularly true in the ER context because learners are expected to read for pleasure and not to search for predetermined information to complete an assignment or to study for exams.

Factors Used for Book Selection

The survey also included the question, "What factors influence you when choosing books. Select all that apply." to examine what other factors students used in book selection regardless of the book format, p-books or e-books. The results in Figure 3 show that they pay most attention to the book cover. The second and third most cited factors are book genre, book type, and students' prior knowledge of the contents. The fourth most cited factor again relates to the visual images of illustrations and pictures used in books. The difficulty of books was relevant to the fifth, sixth, and eighth factors in the following order: presence of furigana (phonetic description

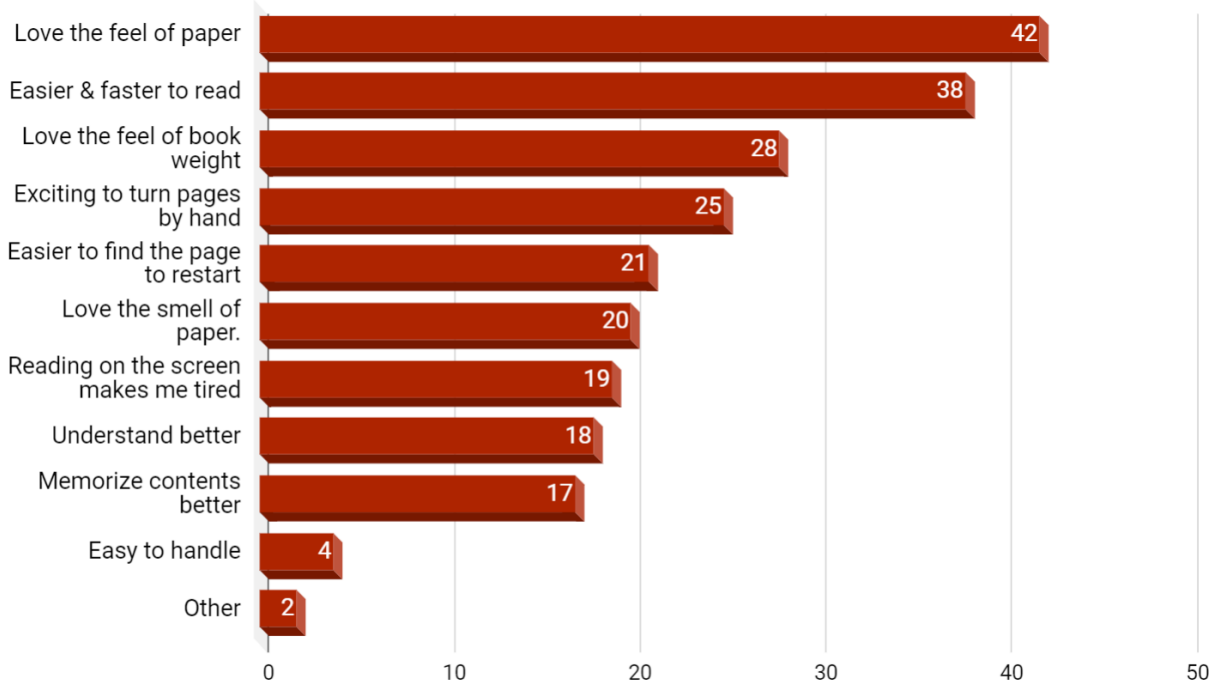

Figure 2. Reasons and factors to choose p-books over e-books (Numbers show the number of students responded).

of how to read kanji, i.e., Chinese characters), presence of language grade/difficulty level, and the number of kanji used. Book recommendation by peers and teachers were also cited as factors for book selection, though they were not considered as important as other factors that were more directly related to book appearance. The results indicated that students in general pay more attention to visual images and content than the language difficulty or someone's recommendation.

The fact that students pay most attention to book cover, i.e., visual images of books, may explain students' strong preference for p-books. It is usually easier and faster to see and compare book covers of multiple books and illustrations/pictures used in the books by physically turning a couple of pages. The factors of character size and font size were not as important as other factors according to the survey results, whereas turning pages physically also allowed students to get such information at a glance as well as the density of text per page. P-books allow readers to get various kinds of information simultaneously and efficiently, which may affect students' preference for p-books.

Book Selection by Genres and Preference for p-books or e-books

We looked at the actual books that students selected using the data from students' reading journal to further examine if their book selection had any relation to the environmental differences in ER classes. The data from students' reading journal produces a list of actual books students read, which is different from their subjective assessment about p-book or e-book preference. The reading journal asked students to write a title, a genre, and a format, i.e., p-book or e-book, of the book they read every week. The data comes from a total of 287 entries in the book journals recorded by 14 students from UMass and four students

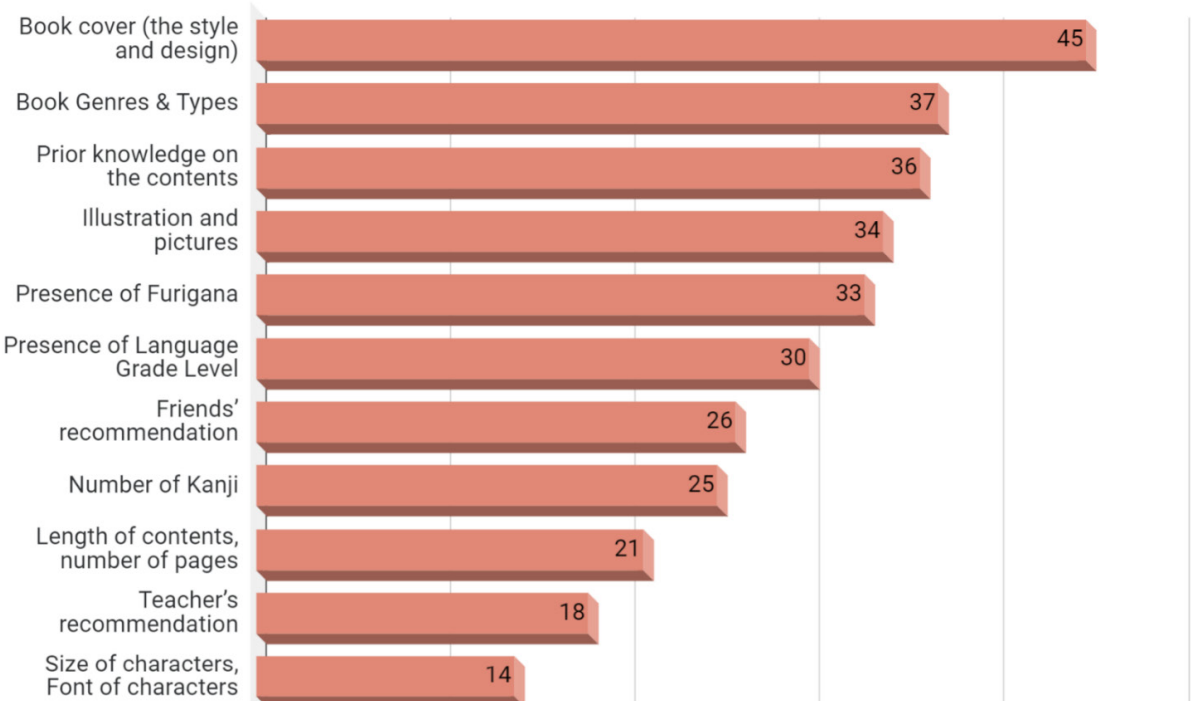

Figure 3. Book selection factors (Numbers show the number of students who chose the factor).

Table 2. p-book to e-book Distinction, Book Genres Ratio According to Students' Book Journals

Book Genres, and p-book and e-book distinction	*UMass Students*	*MHC Students*	*Combined data of the two groups*
p-book Graded Readers	46.03%	62.24%	51.57%
p-book manga and graphic novels	26.46%	7.14%	19.86%
e-book Graded Readers	2.64%	20.41%	8.71%
e-book manga and graphic novels	1.06%	0%	0.70%
Picture books (no distinction between p- and e-book)	13.23%	4.08%	10.10%
Stories, essays, poetry (no distinction between p- and e-book)	8.46%	2.04%	6.27%
Web and audio books	0%	4.08%	1.39%
Photograph-based books (no distinction between p- and e-book)	0.53%	0%	0.35%
Other	1.59%	0%	1.05%
Total	100%	100%	100%

from MHC who participated in the ER class at UMass in spring 2017. The number of entries by UMass students totaled 189, and those by MHC students totaled 98. The data does not include spring 2016 and fall 2016 because such data is not available.

The results from the total of 287 entries in the book journals confirmed students' p-book preference at 71.43% in book selection. 71.43% is a sum of 51.57% of p-book selection for Graded Readers and 19.86% of p-book selection for manga and graphic novels shown in Table 2. The multiple choice in the book journal did not specifically ask about the format of the selected books: p-books or e-books in the following three genres (picture books, stories/essays/poetry, and photograph-based books such as Japanese zukan). However, students were asked to write the title of each book they read in the reading journal. By examining the book title they provided, it turned out that more than 95% of the books students selected in these three genres were identified as p-books. By including the p-book ratio of selections in the three genres, the overall p-book selection ratio rises to about 87%, which is consistent with the students' reported subjective preference for p-books.

The percentage of choosing p-books or e-books showed contrastive results between the two groups of students in comparison to p-book availability at two institutions. The selection ratio of p-book Graded Readers by MHC students was 62.24% which was 16.21% higher than UMass students (46.03%) despite the fact that fewer p-books were available at the former institution. On the other hand, the selection ratio of e-book Graded Readers by MHC students was 20.41% which was 17.77% higher than UMass students (2.64%). This is consistent with the low availability of p-books in the former institution. However, the overall p-book preference in actual book selection is still strong in both groups regardless of

the availability of p-books and electronic devices in the two different reading spaces.

Conclusion & Discussion

This study examined students' preference for either p-books or e-books among three groups in different ER learning environments. The results showed a strong preference for p-books among the three groups, regardless of the availability of p-books and the availability of electronic devices in the ER environment. Intensive instructions on how to use e-books did not have much of an impact on the preference for p-books or on the actual ratio of p-book selection. The reasons for students' preference for p-books were deeply related to the tactile sensation of paper, such as the physical feel and smell of paper, the feel of a book's weight, and the excitement of turning pages. The survey results also confirmed that students view p-books more positively because they believe that p-books promote better comprehension and faster reading than e-books, while students had a negative impression about e-books because they believe that e-books lead to more fatigue than p-books.

The results in the current study imply that the ER environment creates an unusual space and time for learners to read for pleasure, a place where students can isolate themselves from their daily lives and the excessive use of electronic devices (Perrin & Jiang, 2018; Rubino, 2018; Yoshimura & Shiomi, 2016). Unlike reading to complete assignments or to take exams, the process of book selection in ER offers complete freedom of choice, which allows book browsing for pleasure, i.e., the berrypicking method mentioned earlier (Bates, 1989). As our ER course is not a required course, students take the course purely based on their interest in improving their Japanese. With such a strong motivation to learn Japanese in a non-traditional language class through ER, students may enjoy a physical ER space surrounded by p-books to read in a foreign language. In this situation, p-books may play a significant role.

The current study showed students' strong preference for p-books, but the data were collected from a small number of participants, and the e-book environment for learning Japanese as a foreign language (JFL) is very different from that in ESL. Students have to look for e-books in Japanese using multiple websites, each of which has its own structure for book display and book search. Most Japanese e-books are authentic books that are not written for learners of Japanese, unlike Graded Readers, which makes it even harder for students to find e-books that they can read at their reading proficiency level. When a single online platform to search for e-books written for JFL becomes available, it will be interesting to look at learners' p-book preference again from a new perspective.

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