Five Japanese Students' Self-directed Learning With ICT: An **Exploratory** Study

Remi Okazaki Aoyama Gakuin University

Reference Data:

Okazaki, R. (2015). Five Japanese students' self-directed learning with ICT: An exploratory study. In P. Clements, A. Krause, & H. Brown (Eds.), *JALT2014 Conference Proceedings*. Tokyo: JALT.

This paper describes the learning experiences of five Japanese college students who completed 1 month of self-directed English learning using information and communications technology (ICT) in 2013. The students, who had an intermediate level of English or higher, engaged in three different types of activities: (a) watching English-language online movies and TV programs, (b) using smartphone apps for learning English, and (c) taking a series of online English lessons. The study employed a small-scale qualitative approach, including three questionnaires and a learning diary. The results provided specific insight into five cases of Japanese students' self-directed English learning with ICT and the effects of these activities. The findings suggest some promising ways for Japanese students to practice effective self-directed English learning with ICT resources.

本稿は、学習者自身による、学外でのICTを使用した英語学習について調査したものである。2013年に著者が行った1ヶ月の予備的研究に参加した5人の大学生から集めたデータを、質的研究で分析し考察した。参加した学生は、中上級の英語学習者で、a) オンデマンド動画サイトで英語圏の映画やTV番組を利用して学習する、b) スマートフォンの英語学習アプリを用いて学習する、c) 外国人講師によるSkypeを使ったオンライン英会話レッスンを受ける、のいずれかを1ヶ月間行った。参加者から、3種のアンケート、1ヶ月間の学習ログを回収し、学習内容、学習方法、及び、学習効果に対する印象を分析、考察を試みた

HE USE of information and communications technology (ICT) and mobile technology is growing. According to the Ministry of Internal Affairs and Communications (MIC, 2014a), nearly 98% of Japanese people aged 13-49 made use of the Internet with computers, tablets, or smartphones, and more than 62% of Japanese people owned smartphones as of 2014. Another MIC survey showed that more than 88% of Japanese high school students have their own smartphones, and for 80% of those students their phones are their main method of access to the Internet (MIC, 2014b).

With the increasing use of these technologies for language learning, personal learning environments (PLEs) or nonformal language learning has become an alternative to traditional language-learning classes. According to the Japanese smartphone app information website Appliv (2015), more than 450 English learning iOS apps designed by Japanese companies are available online today, and one of those apps, Real Eikaiwa, which provides natural English expressions, has achieved 680,000 downloads (Apple Inc., 2014). Another example is RareJob, one of more than 170 Japanese-owned online English schools that offer online English lessons via Skype, which has provided 270,000 Japanese English learn-



JALT2014 CONFERENCE PROCEEDINGS

ers with 15 million lessons since its founding in 2007 (Online eikaiwa hikaku navi, 2014; RareJob, 2015). Furthermore, the on-demand streaming content service Hulu, which offers thousands of online English movies and TV programs, boasts one million subscribers in lapan today (Internet Watch, 2015).

There are significantly fewer studies of ICT that show positive results (for one example, see Almekhlafi, 2006) than there are studies on the use of computer-assisted language learning (CALL) more generally. However, some studies have demonstrated the use of ICT for nonformal language learning. Wang's (2012) qualitative study, for example, describes Chinese English learners' self-directed learning using English-language online movies and TV dramas. Wang found that the participants, five Chinese English learners aged 25-29, had all engaged in self-study of English by watching English TV dramas online, such as *Lost* and *Grey's Anatomy*, for several years, and that they all thought this learning was a highly effective method to acquire vocabulary and natural expressions and improve their pronunciation and intonation.

In addition, Sockett and Toffoli (2012) described French youths learning English outside the classroom using ICT. This qualitative study consisted of an 8-week diary study in which five French college students, aged 25 or under, each logged their online English activities in their spare time. All five participants stated that they acquired English vocabulary through using English to participate in social networking sites (e.g., Facebook), to watch movies and TV programs online, such as *Desperate Housewives* and *Dexter*, and to listen to music using on-demand music services, such as Deeser and Spotify.

Harji, Woods, and Akavi's (2010) study, conducted in classroom settings, showed positive results for the use of English subtitles for English learning. They examined the improvement in the vocabulary acquisition level of 92 Iranian college students who were divided into two groups: one group watched videos with English subtitles, and the other watched with no subtitles. After the treat-

ment, the group that had watched videos subtitled in English gained a significantly higher mean score on a content specific test (CST) than the other group.

Another study related to the current study was conducted by Gablasova (2014), who suggested that studying vocabulary through the L1 can be more effective for L2 learners than studying it through the L2. This study investigated the language skills of 64 Slovakian high school students at intermediate-to-advanced levels of English. The students were divided into two groups: one group read the material in their L1, the other group in their L2. The L2-instructed students were able to learn, but after a week, their knowledge of vocabulary faded more rapidly than that of the L1-instructed students (p. 976).

Considering the lack of research on Japanese English learners' English activities outside of class using ICT, I undertook a small-scale qualitative study that addressed the following research question:

How does an ICT-based program in which Japanese college students study English outside the classroom affect their language learning in three different conditions:

- (a) students watch English-language online movies and TV programs,
- (b) students use smartphone apps for learning English, and
- (c) students do a series of Skype English lessons?

Given the emergent nature of research in this area and the limited number of participants, the study was necessarily exploratory.

Participants

According to the Common European Framework of Reference for Languages (Council of Europe, 2013), only learners at the B2 level (upper immediate) or higher can understand standard spoken language, live or otherwise. As listening to English movies requires

this level of proficiency, participants who met the following requirements were selected: (a) English proficiency at an intermediate level or higher, (b) possession of and ability to use a personal computer or a smartphone, (c) a high degree of motivation, and (d) a willingness to fully participate in the study.

Three college students and two recent graduates (who graduated in March 2013) aged 22-26, including one male and four females, voluntarily participated in the study. Four were English majors and one student, Participant B, was majoring in cultural and creative studies. In addition to 10 years of formal English education, they had all been studying English outside the classroom in various contexts, such as in English conversation schools and through self-study. Participant D also had experience attending a 6-month ESL course in Canada, and Participant B had studied in the US twice for a total of 2 years. In terms of their English proficiency, the participants had passed the Pre-1 level of the Eiken test (Participants A and E) or achieved a 6.0 on the International English Language Testing System (IELTS) test (Participant B), 780 on the TOEIC test (Participant C), or 925 on the TOEIC test (Participant D).

Materials

The study was based on data from four different sources: three questionnaires and a learning diary. All materials were written in both English and Japanese so as to avoid any misunderstandings.

The first two questionnaires, a basic information questionnaire (Appendix A) and pretreatment questions (Appendix B) were designed to yield information on participants' English learning backgrounds and experiences using self-directed English learning. Posttreatment questions (Appendix C), comprised five Likert-scale questions and one open-ended question, aimed at eliciting participants' impressions of the efficacy of the English learning activities. The purpose of the learning diary was to measure participants' learning in detail, such as the length of time they spent doing the

activities, the content they used, and the things they learned. In order to elicit more spontaneous reactions, no language was specified on the form.

Method

The study was conducted during the summer of 2013, targeting college students and recent graduates. Each of the five participants received a set of materials and an access key to obtain online resources from the author and started a 1-month period of study after filling in the first two questionnaires. During the study, they kept a learning diary to log their activities in detail and a month later, they ended their activities by filling in the third questionnaire. All of these materials were collected in person or online by the author.

Three participants engaged in watching English-language movies and TV programs using an on-demand streaming content website, and one participant used smartphone apps for learning English. The other participant completed a series of English lessons via Skype with an English-speaking tutor. Two requirements were established for all participants—that each person should study for 25 minutes a day or 50 minutes every other day for a period of 1 month and also keep a learning diary—but all other aspects of the activities, such as the content and study methods and the devices they used, were freely chosen by each participant.

All data from questionnaires and diaries were examined through qualitative analysis, except for the Likert-scale data from posttreatment questions and data on the time spent engaged in learning, which were analyzed quantitatively.

Analysis and Results Time Spent on Self-Directed Learning

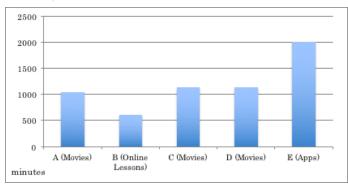


Figure 1. Total amount of time spent on self-directed English learning in 1 month (N = 5).

Figure 1 shows the total amount of time the participants spent on their activities. Four out of five spent more time than the minimum length of time they agreed to before the study, 12.5 hours. Participants A, C, and D spent 17.3, 18.9, and 19 hours, respectively, which is about 50% more than the minimum. Participant E spent 33.4 hours, which is almost twice as much as the average logged time of each of the other four. In contrast, Participant B spent the least amount of time, 10 hours, which is approximately 20% less than the minimum. The average for all five was 19.7 hours.

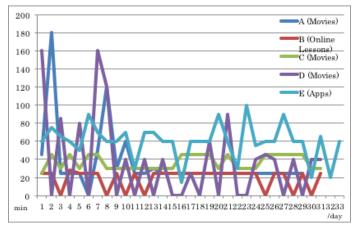


Figure 2. Time spent daily on self-directed English learning, by participant.

Figure 2 shows the daily time the participants spent on their activities. Although Participants A and D spent relatively more time during the first 8 days of the period, the daily number of hours spent studying over the course of the month stayed almost the same for the other three participants. The average individual daily time spent on learning was 46 minutes, which is almost twice as much time as the minimum, 25 minutes.

English-Language Online Movies and TV Shows

Table 1 provides an outline of three participants' self-directed English learning through watching online movies and TV shows. Participants A, C, and D completed these activities 28, 31, and 17 times, respectively, during the month. The on-demand streaming service they used was Hulu, mentioned earlier, which allows users access to the site anytime via computer, tablet, smartphone, video game con-

sole, or TV. A lot of Hulu's English-language content enables viewers to choose whether to have English or Japanese subtitles or no subtitles. Participant A watched a variety of programs, whereas Participants C and D studied only with TV shows. All three preferred American TV shows, but they varied in their use of subtitles. Participant A preferred English subtitles, but Participant C employed all the types of subtitle options depending on her aim or mood that day. Both used English subtitles as well as their dictionaries to check the words and expressions they heard, looking up pronunciations as well. Participant D, however, used only Japanese subtitles, reporting that even though she had also wanted to use English subtitles, her ICT device did not allow her to adjust the subtitles.

According to the learners' diaries, they picked up new words and fixed expressions that mostly consisted of three to four words: for instance, vertical, horizontal, leverage, just my luck! rule out, pull a practical joke, and all things considered (Participant A); hilarious, outfit, you shouldn't have, this is bullshit! that's none of your business, and lighten up (Participant C); and goofy, reassign, hit it off, I got the green light, if I may, don't bother, he is two-timing you, you slammed me! I'm devastated, and kick it off (Participant D). Participant C wrote, "The advantage of studying English using TV shows, I think, is that we can learn natural English expressions. We can use them to talk to native English speakers right after we learn them." (All quotations from learning diaries and questionnaires were written in Japanese, unless otherwise indicated, and have been translated into English by the author.)

Table 1. Three Participants' Self-Directed English Learning Using Online Movies and TV Shows for a Month

Variable	Participant				
	A	С	D		
Total time	17.3 hours	18.9 hours	19 hours		
Frequency of practice	28 times	31 times	17 times		
Learning	vocabulary, idioms, fixed expressions, pronunciation, intonation	vocabulary, idioms, fixed expressions, pronunciation, intonation	vocabulary, idioms, fixed expressions, pronunciation, intonation, accents		
Content	House (11)	Gossip Girl (19)	Ugly Betty (27)		
(Number of episodes)	Misfits (1)	Sex and the City	Ghost Whisperer (1)		
	Heroes (5)	(15)			
	All I Want				
	She's the Man				
	Dead Poets Society				

Participant A actively sought content that would contain high-level vocabulary and almost always checked whether she had heard what was said correctly by using English subtitles. She mostly logged her entries in English, for example, "It wasn't only prepositions that I was not hearing properly, it was verbs and nouns and more." For vocabulary acquisition, she made a list: "I've heard this phrase a million times but never used it. I'm going to start lining up phrases I'd like to try using."

Participant C, however, watched the same program over and over again, using a different subtitle option each time. For instance, she first watched the program without subtitles to check her listening ability and watched it with Japanese subtitles to understand the plot

better the next day. Alternatively, after watching a program once with English subtitles, she watched it again without subtitles to test her listening ability or vice versa. She wrote, "Today I watched a program I saw with English subtitles once, and I am happy because I was able to understand more lines today than the last time."

As she could not use English subtitles, Participant D watched TV shows with her dictionary at hand. She logged her entries largely in Japanese, and sometimes in English, as in the following: "The story was so fun that I wasn't in a mood of stopping it and checking the meaning in a dictionary every time I find a new word." Interested in various accents, such as British, American, Spanish, Australian, and Scottish, she also paid attention to the actors' different accents while watching programs.

Smartphone Apps for Learning English

Participant E's entries provided specific insight into his self-directed learning using smartphone apps. Making use of a total of 12 different apps, such as grammar and listening apps, including both free and paid apps, he studied to acquire vocabulary and idioms and to improve his listening ability. Mostly he used the same content repeatedly. For example, he used Eigo Mimi Gē, an English listening game app that includes multiple stages, playing with the content of each stage over and over again until he cleared it, then moving on to the next stage. He wrote, "It's very difficult to distinguish L and R sounds. It's more difficult to distinguish B and V sounds, like *boat* and *vote*, *bolt* and *volt*, and *berry* and *very*. I did not even get 50% of the questions correct," or "I tried the same one as yesterday, aiming to get 100% correct! However, I did even worse than yesterday. I realized I was not confident when I answered the questions."

Participant E often divided his study time into several small segments, for instance, 10, 20, 20, and 10 minutes each; at other times he did activities for 1 hour straight. This is because he studied in various environments, for example, on the train, at home, or when

he was doing the washing. As a result, he spent twice as much time studying as the other four.

From the perspective of Participant E, some apps were enjoyable to use, but some were not. Useful apps inspired him to greater efforts: "This might be the greatest app! It is so organized that I can learn new words as I want! I'll try the next stage of it tomorrow." On the other hand, some apps made him reluctant to study: "I stopped studying and started checking Facebook instead when apps were not fun." Table 2 shows an outline of Participant E's self-directed learning, with the apps he preferred denoted by an asterisk.

Table 2. One Participant's Self-Directed English Learning Using Smartphone Apps for a Month

Variable	Participant E	
Total time	33.4 hours	
Frequency of practice	31 times	
Learning	vocabulary, idioms, fixed expressions, pronunciation, intonation, shadowing (news), dictation (news), conversation quizzes, listening games,	
App (Frequency of use)	* Real Eikaiwa (15)	
	* TOEIC Hinshutsu Tango 2000 (11)	
	* Jissen Listening News (9)	
	* TOEFL Eitango 3000 (8)	
	* Eigo Mimi Gē Ver.1&2 (6)	
	* Super Eitango 30000 (4)	
	Eigo Kikitori Ōkoku (3)	
	Eigo Jōzu (Sogoban) (2)	
	Narabete Eigo (1)	
	All In One (1)	
	Gogen Gakushū (1)	
	TOEIC Yattarō (1)	

Skype English Lessons

Table 3 presents an outline of Participant B's self-directed learning using English lessons via Skype. The lessons she took were from the online English school Langrich, which offers Skype English lessons with Filipino teachers in which learners can take lessons anywhere on their computers, tablets, or smartphones as long as they have a Skype connection. Participant B chose this activity, writing, "I've always wanted to try this." Choosing a teacher and materials for each lesson, she spent a fixed time of 25 minutes a day due to the length of the lessons the school offered. As the teachers were all Filipino, she only spoke English with them during her lessons.

Among the downloadable materials on various topics, such as pronunciation, daily conversation, basic grammar, news and interviews, Participant B preferred business English and also found TED Talks and BBC News effective in enriching her vocabulary. She actively sought to use content that would contain high-level vocabulary and sometimes prepared for lessons by downloading materials and looking up the words. She wrote, "In TED Talks, speakers sometimes make jokes. I hope I am someday proficient enough to understand those jokes." Sometimes teachers' comments made her happy: "I chose one of the TED lessons again today. No new words for me this time. When I summarized the article, I attempted to explain the point of each paragraph. The teacher told me my summary was perfect." Concerning the frequency of practice, she missed eight times, and this cut her total study time to less than the minimum required for the study. However, she reported having enjoyed acquiring knowledge of not only English but also Philippine culture.

Table 3. One Participant's Self-Directed English Learning Using English Lessons via Skype for a Month

9	31
Variable	Participant B
Total time	10 hours
Frequency of practice	23 times
Learning	vocabulary, idioms, fixed expressions, pronunciation, intonation, summarization, conversation, fast reading, discussion
Materials	Business Intermediate (5)
(Frequency	TED Lesson (9)
of use)	BBC Learning English (3)
	PRI's The World (1)
	Free talking (2)

Participants' Views on the Efficacy of the English Learning Activities

Table 4 illustrates the participants' views on the effectiveness of the approach to studying that each took. Figures represent the number of participants who chose the response. All five felt learning English using ICT had positive effects on improving their listening ability, and four out of five their reading ability. Although one participant chose "somewhat disagree" about the effects of ICT on her speaking ability, all participants felt the activities had relatively positive effects on improving all other English skills overall.

Table 4. Posttreatment Questionnaire Results (N = 5)

Type of	Response				
improve- ment	Strongly agree	Somewhat agree	Neither	Somewhat disagree	Strongly disagree
Speaking ability	2	2	0	1	0
Pronun- ciation	1	2	2	0	0
Writing ability	2	2	1	0	0
Listening ability	5	0	0	0	0
Reading ability	4	0	1	0	0

Self-Directed English Learning Background

The questionnaire revealed that before the study, each of the participants had already been engaged in English learning activities outside the classroom for years and some of the activities involved ICT: using smartphone apps or computer software for learning English, writing various things in English such as Facebook posts, tweets, and emails, reading English books, listening to Englishlanguage radio programs like CNN News and so on. In particular, they all reported often watching American or English TV shows and movies to improve their listening ability and vocabulary.

Discussion

Besides details about learners' self-directed learning, the findings revealed four salient aspects of this learning: repetition, note taking, English subtitles, and bilingual materials.

Repetition

Repetition assists learners in memory retention, and this process, called memory rehearsal (Goldstein, 2010), plays a crucial role in language learning. In this respect, smartphone apps seem quite appropriate. Taking advantage of the portability of smartphones, learners can easily study the same content repeatedly wherever they are, as Participant E described doing. Actually, the phrases try it again, review, and repetition were often seen in his entries, for example, "Many of these expressions seem useful for daily conversation. I'd like to memorize them by repetition." In addition, the data from participants who studied using online movies and TV programs also showed that they repeated the same content multiple times. A 10-second rewind function, which allowed them to quickly skip back and check subtitles and pronunciation, seems to have helped them engage in repetitive learning. Considering that Hulu works on smartphones, streaming content on smartphones as well as smartphone apps provide quite convenient materials for studying English through repetition.

Note Taking

As noted earlier, Participant A, who studied using online movies and TV shows, made notes of the items she picked up while watching programs. She sometimes mentioned this in her entries, writing in English, "I wrote down words or phrases that I often hear but hardly use, and tried to memorize them to use them in real life." The Chinese English learners in Wang's (2012) study also reported that they took notes of what they had learned, such as vocabulary, idioms, and information about pronunciation and intonation, while watching movies and TV shows online. Furthermore, the participant who studied with apps in this study noted, "I always write down the words I answered incorrectly in my notebook. That is my way of acquiring vocabulary! This app looks perfect for that." Keeping a vocabulary notebook seems useful, especially when combined with repetition, regardless of activity.

English Subtitles

The participants in this study mentioned the use of subtitles in particular. They stated that English subtitles were much more useful than Japanese subtitles. Participant C made the comment, "I think using English subtitles is more effective than Japanese subtitles in learning English, even though it takes me some time to check new vocabulary with my dictionary." As noted earlier, Harji et al. (2010) reported similar findings, and Participant A also referred to the advantages of English subtitles at times, writing in English, "Watching the subtitles, I realized that I wasn't hearing some words correctly. 'Went on to...' sounded to me 'went down to...'" and "Watching the subtitles, I realized many of the words I understood listening I couldn't spell properly (e.g., naked)." Given the fact that the participants in this study felt their activities improved their reading ability, English subtitles may be beneficial in other respects as well.

Bilingual Materials

This was an unexpected finding. The 12 apps Participant E used were all bilingual (English/Japanese) in spite of his awareness of monolingual English learning apps like Flashcards. His entries indicated that he preferred a bilingual approach to improve his English skills: "I found this app has a bilingual display function. It is appropriate to have an understanding of sentences," and "These two vocabulary apps are easy to study! I can learn vocabulary efficiently." Gablasova's (2014) study, described earlier, supports this view. In her study, the L1-instructed students learned and retained the words better than those instructed in the L2. In view of these findings, studying the L2 through the L1 might be a promising way to improve learners' L2 proficiency, vocabulary in particular.

Conclusion

This study documented five Japanese college students' self-directed English language learning with ICT and suggested some ways in

which Japanese students might learn English more effectively. These include more use of online resources such as smartphone apps, which are continually being developed, and online movies and TV shows. These are worth further study because they have not been researched as a tool for independent study. As seen in this study, ICT offered flexibility not found elsewhere, which might be a major factor in the fact that four out of five participants spent significantly more time than the minimum doing their activities. It also provided enjoyment, which promotes motivation. In terms of motivation, lessons via Skype are also worth further study, as the student's relationship with the teacher is a powerful motivator (Dörnyei & Csizer, 1998).

However, the findings of this study are derived from the observation of only five Japanese college students at an intermediate level of English or higher who had already been engaged in self-study using ICT before the study started and therefore is exploratory only. A larger study could be done of Japanese students at the intermediate level, as well as an investigation of whether or not English-subtitled movies are effective for language learning. Moreover, the effects of different smartphone apps for learning English on beginning-level English learners' vocabulary acquisition and the effect of text-based Internet chat in English (e.g., on Facebook or Line) on learners' English proficiency should also be explored. Additionally, further study should also examine influential variables such as motivation and autonomy.

ICT resources for English language learning are increasingly evolving. Considering these factors, educators should look for appropriate ICT activities for students to engage in English language learning.

Acknowledgement

My special thanks go to Gregory Strong in the English department at Aoyama Gakuin University for his support of this project.

Bio Data

Remi Okazaki studied applied linguistics at Aoyama Gakuin University in Tokyo and the University of Florida for a total of 5 years and graduated from the English department at AGU with a specialization in second language acquisition in 2014. She works as an English tutor. Her research interests include language education and language learning through ICT. <rerere@xrj.biglobe.ne.jp>

References

- Almekhlafi, A. G. (2006). The effect of computer assisted language learning (CALL) on United Arab Emirates English as a foreign language (EFL) school students' achievement and attitude. *Journal of Interactive Learning Research*, 17(2), 121-142.
- Apple Inc. (2014). Real eikaiwa [Real English conversation; iTunes preview]. Retrieved from https://itunes.apple.com/jp/app/real-ying-hui-hua/id373563219?mt=8
- Appliv. (2015). Eigo no benkyou: iPhone/iPod apps [iPhone/iPod apps for English language learning; Online review website]. Retrieved from http://app-liv.jp/education/languages/0541/
- Council of Europe. (2013). Common European Framework of Reference for languages: Learning, teaching, assessment. Structured overview of all CEFR scales. Retrieved from http://www.coe.int/t/dg4/linguistic/Source/Framework_EN.pdf
- Dörnyei, Z., & Csizer, K. (1998). Ten commandments for motivating language learners: Results of an empirical study. *Language Teaching Research*, 2, 203-229.
- Gablasova, D. (2014). Learning and retaining specialized vocabulary from textbook reading: Comparison of learning outcomes through L1 and L2. *The Modern Language Journal*, 98, 976-991.
- Goldstein, E. B. (2010). Cognitive psychology: Connecting mind, research, and everyday experience (3rd ed.). Belmont, CA: Wadsworth.
- Harji, M. B., Woods, P. C., & Akavi, Z.K. (2010). The effect of viewing subtitled videos on vocabulary learning. *Journal of College Teaching and Learning*, 7(9), 37-42.

- Internet Watch. (2015, March 30). Hulu, kokunai hyakumannin user toppa [The number of Hulu paid subscribers in Japan has exceeded one million]. Retrieved from http://internet.watch.impress.co.jp/docs/ news/20150330_695274.html
- Ministry of Internal Affairs and Communications (MIC). (2014a). Chapter 3: Internet no riyou doukou [Chapter 3: Internet usage trends]. *Jouhoutsu-ushin Hakusho Heisei 26 Nendoban* [2014 White Paper on Information and Communications]. Retrieved from http://www.soumu.go.jp/johotsusintokei/whitepaper/ja/h26/html/nc253120.html
- Ministry of Internal Affairs and Communications (MIC). (2014b). 4. Seishounen no riyou kiki no genjou [4. The present state of the youth's use of devices]. *Heisei 26 Nendo Seishounen no Internet Literacy Shihyou Nado* [2014 Internet Literacy Assessment Indicator (ILAS) for Students and so on]. Retrieved from http://www.soumu.go.jp/main_content/000315097.pdf
- Online eikaiwa hikaku navi. (2014, October). Online eikaiwa school ichiran hikaku [Online English school comparison chart]. Retrieved from http://blog.livedoor.jp/online_english/archives/21683796.html
- RareJob. (2015, March 11). Online eikaiwa service "RareJob" Brazil ni okeru jigyou kaishi ni muke shidou global tenkai o honkakuka [Online English conversation service "RareJob" continues push toward globalization, aiming to start business activities in Brazil; Press Release.] Retrieved from http://www.rarejob.co.jp/news/news_release/corporate/2015/0311/1297/
- Sockett, G., & Toffoli, D. (2012). Beyond learner autonomy: A dynamic systems view of the informal learning of English in virtual online communities. *ReCALL*, 24(2), 138-151.
- Wang, D. (2012). Self-directed English language learning through watching English television drama in China. *Changing English*, 19(3), 339-348.

Appendix A	Appendix B			
Basic Information Questionnaire	Pretreatment Questions			
Your activity: movies \square online lessons \square smartphone apps \square	Your activity: movies \square online lessons \square smartphone apps \square			
Directions: Please check the appropriate box and complete the answer. 1. Native language:	1. Do you do, or have you ever done self-directed learn Yes, I currently do it. Yes, I have done it before. No, I have never done it before. II. (If yes) What do/did you do that self-directed learn To improve my speaking ability To improve my listening ability To improve my reading ability To improve my writing ability To improve my pronunciation To enrich my vocabulary To learn natural/correct English expressions III. What kind of self-directed learning activities do/d (e.g., Reading books to improve vocabulary) ———————————————————————————————————	aning for?		
	V. Besides assignments, do you write in English? Yes	□ No □		

·					
VI. (If yes) How much time do you usually spend writing in English? (e.g., 1 hour/day)	Appendix C Posttreatment Questions		_		
VII. What exactly do you write in English? (e.g., emails, chat online)	Your activity: movies □ online lessons □ smartphone apps □				
	I. I feel that this self-directed learning was				
VIII Posidos assignments do you speak in English? Vas 🗆 No 🗆	a) effective in improving my spoken English				
VIII. Besides assignments, do you speak in English? Yes ☐ No ☐	Strongly agree / Somewhat agree / Neither / Somewhat disagree / Strongly disagree				
IX. (If yes) How much time do you usually spend speaking in English?					
(e.g., 1 hour/day)	b) effective in improving my English pronunciation				
	Strongly agree / Somewhat agree / Neither / Somewhat disagree / Strongly disagree				
X. Who do you speak in English to? (e.g., a friend in the U.S.)					
	c) effective in improving my written English				
	Strongly agree / Somewhat agree / Neither / Somewhat disagree / Strongly disagree				
	d) effective in improving my listening ability				
	Strongly agree / Somewhat agree / Neither / Somewhat disagree / Strongly disagree				
	e) effective in improving my reading ability				
Strongly agree / Somewhat agree / Neither / Somewhat disagree / Strongly agree / Somewhat agree / Strongly agree / Somewhat agree / Strongly agree / Somewhat agree / Somewhat agree / Somewhat agree / Strongly agree / Somewhat agree / Somewhat agree / Strongly a					gree / Strongly disagree
	II. Any comm	ents			