

Case study

Netflix and L2 learning: A case study

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Abstract

The evolving video viewing habits of consumers combined with advances in mobile technology have resulted in the growth of video on demand (VOD) services. While these video streaming services potentially offer several benefits for L2 learners, little is known about them in the context of language learning. Thus, this study fills this gap in the literature by examining EFL students' views of Netflix, the leading provider of subscription VOD. The study also investigates the extent to which EFL learners use Netflix for L2 learning and the means by which they access the service. Nine Japanese EFL students participated in the study and were given three months to use Netflix. The participants were then interviewed to obtain their opinions of the video streaming service. Four themes were extracted from the interview data: (1) enhanced learning effectiveness, (2) increased L2 motivation, (3) better access to L2 knowledge, and (4) hindered convenience. It was also found that the learners watched primarily through mobile devices rather than PCs, and viewed more L2 titles than L1 programming. These results illustrate that subscription VOD has the potential to foster L2 learning and underscore the necessity for more research into their use for language learning.

Keywords: L2 video, CALL, L2 learning, English as a foreign language, Netflix.

1. Introduction

According to a 2016 report by Nielson on video viewing habits, almost two-thirds of the questionnaire respondents stated that they watch video on demand (VOD) programming, video which can be streamed via the Internet or downloaded for later viewing. Another significant finding from the survey, which was administered to people in 61 countries, is that 43% of the respondents said that they view VOD content at least once a day, demonstrating that these types of services are becoming more and more a part of our daily lives. Compared with physical media and video from transactional VOD services like iTunes or Google Play that must be purchased or rented periodically, the advent of subscription VOD presents language learners with a more convenient way to view authentic second language (L2) video, i.e., video materials that have been made for entertainment or informational purposes rather than ones designed specifically for language teaching and learning. Although there are numerous subscription VOD services available worldwide, including Amazon Prime Video, Hulu, and YouTube Red, Netflix has best leveraged the changing viewing habits of consumers to become the leader in the subscription VOD market (Ingram, 2017). Despite the potential advantages of subscription VOD for L2 learners such as greater access to authentic video and enhanced mobility, there have been no empirical studies on their use with foreign language students. Therefore, this study seeks to fill this gap in the literature by examining Japanese English as a foreign language (EFL) learners' perceptions and usage habits of Netflix in the context of L2 learning.

2. Literature review

Watching authentic video materials comes with a variety of advantages for L2 learners. As King (2002) noted, films provide learners with a meaningful context for language learning, while addressing issues that are relevant to the lives of students. In a study investigating the effects of movies on EFL learners in China, Qiang, Hai, and Wolff (2007) determined that films offered four key benefits for students: (1) improved pronunciation and intonation, (2) exposure to idioms, (3) assimilation of English sentence structure, and (4) knowledge of the target culture. Similarly, Lin and Siyanova-Chanturia (2014) stated that Internet television gives learners opportunities to listen to and observe authentic English while also enabling them to contextualize vocabulary acquisition. Based on the results of a questionnaire administered to EFL students in Hong Kong, Chapple and Curtis (2000) concluded that viewing English films promoted the development of English speaking and listening skills as well as the confidence of the learners in the study.

Much of the research on authentic video and L2 learning has focused on the use of subtitles. As Vandergrift and Goh (2012) note, studies suggest that the use of subtitles supports vocabulary learning and listening comprehension. However, they are also quick to point out that it is not known if improvements in comprehension are the result of listening or reading, i.e., one of these forms of input (aural vs. visual) may be more salient in terms of L2 comprehension. Yet despite this, and some of their perceived drawbacks (King, 2002; Winke, Gass, & Sydorenko, 2010) Vandergrift and Goh (2012) assert that subtitles play an important role in L2 learning. A study by Bianchi and Ciabattoni (2008) reflects this by illustrating the positive effects that subtitles can have on L2 learners. The researchers investigated the short- and long-term effects of subtitles on L2 English students in Italy, and found that learners who viewed two English films with L1 subtitles performed better at short-term comprehension tasks than those who viewed the movies with L2 subtitles or no subtitles, regardless of the proficiency of the learners. However, the researchers found that the no subtitles group achieved higher scores on a vocabulary test taken directly after viewing. This trend also continued when Bianchi and Ciabattoni (2008) looked at short-term language in-use, with no subtitles outperforming both L1 and L2 subtitles. In terms of long-term vocabulary improvements, students who viewed the movies with either form of subtitling were able to learn and retain more new vocabulary than those who watched with no subtitles, with the L2 subtitle group having slightly higher scores. When it came to intermediate and advanced learners, L2 subtitles also aided students to a greater degree than L1 subtitles and no subtitles on long-term language in-use, whereas beginner learners benefited from no subtitles the most.

In a similar study, Markham, Peter, and McCarthy (2001) examined the impact that L1 subtitles, L2 subtitles, and no subtitles had on L2 Spanish learners' comprehension of an excerpt from a DVD. Each student viewed the video under one of the conditions and an assessment consisting of a written summary and multiple-choice questions was administered to measure comprehension. While both subtitle groups outperformed the no subtitles group, the results revealed that those who watched the videos with L1 subtitles were able to comprehend the content significantly better than the L2 subtitles group.

Montero Perez, Peters, Clarebout, and Desmet (2014) investigated the effects of four L2 subtitle conditions on L2 French learners: no subtitles, full subtitles, keyword subtitles, and full subtitles with highlighted keywords. The participants watched short video clips taken from French current affairs programs and then took vocabulary and comprehension tests to assess the impact that the conditions had on the students. To the surprise of the researchers, Montero Perez et al. (2014) found that all the conditions had similar effects on comprehension. In terms of incidental vocabulary learning, the subtitle groups performed significantly better than no subtitles when it came to form recognition and clip association. However, no significant differences were found between the groups as it pertained to meaning recognition and recall, which casts some doubt on the overall effectiveness of subtitles.

Guichon and McLornan (2008) also examined the effectiveness of differing modalities with L2 learners. A total of four groups of English students took part in the study: (1)

audio only, (2) audio and image, (3) audio, image, and L1 subtitles, and (4) audio, image, and L2 subtitles. The study investigated the L2 English learners' ability to understand an authentic BBC audiovisual recording. It was found that the groups who had access to subtitles scored the highest when it came to comprehension, with the L2 group outperforming the L1 group. The researchers concluded that the use of L1 subtitles may cause lexical interference due to the fact that the visual information did not match the aural input.

Winke et al. (2010) also examined the effects of the use of target language subtitles and no subtitles with L2 learners of Spanish, Russian, Chinese, and Arabic. The learners viewed three short L2 documentaries and afterward, took vocabulary and comprehensions assessments. The participants in the study who used L2 subtitles had significantly higher vocabulary and comprehension scores than those who did not. Additionally, Winke, et al. (2010) collected qualitative data in the form of interviews and were able to identify five themes related to the use of subtitles and L2 video: (1) language students benefit from multiple modalities, (2) subtitles reinforces aural language, (3) subtitles encourage the analysis of language, (4) subtitles influence how learners pay attention to input, and (5) subtitles can be used as crutches. The last two themes echo potential drawbacks of subtitles described by King (2002), who stated their usage could lead to overreliance as students may focus on reading instead of listening to the spoken dialogue.

In another study which involved L2 English students, Mitterer and McQueen (2009) looked at the use of L1/L2 subtitles in movies with regionally-accented English. The learners viewed either an episode of the Australian sitcom *Kath & Kim* or a 25-minute portion of the movie *Trainspotting*, which was set in Scotland. Students who watched with L2 subtitles were able to adapt and reproduce regional accents more accurately than those who viewed with L1 subtitles or no subtitles. In fact, the no subtitle group outperformed the L1 subtitle group when it came to new items or words which did not appear in either *Kath & Kim* or *Trainspotting*, which suggests that L1 subtitles may hinder L2 lexical adaptation.

In summary, authentic video in the form of TV programs, films, and online videos offer students numerous benefits including exposure to authentic input, improved speaking and listening skills, as well as contextualized vocabulary acquisition (Chapple & Curtis, 2000; King, 2002; Lin & Siyanova-Chanturia, 2014; Qiang et al., 2007). Also, the use of authentic video with L1 subtitles seems to help language students adapt to regional L2 accents (Mitterer & McQueen, 2009). Lastly, although the use of subtitles with authentic video has generally been more effective at improving L2 vocabulary and comprehension than no subtitles (Guichon & McLornan, 2008; Markham et al., 2001; Montero Perez et al., 2014; Winke et al, 2010), there seems to be conflicting results regarding which form of subtitling best promotes L2 learning, (Bianchi & Ciabattini, 2008; Montero Perez et al., 2014). Even though literature provides a case for the use of authentic video, to the best of the author's knowledge, there have been no studies investigating subscription VOD in the context of L2 learning. Therefore, the following research questions were addressed to examine the use of Netflix with L2 students:

- What are EFL learners' opinions of Netflix for L2 learning?
- To what extent do EFL learners use Netflix for L2 learning?
- How often and by what means (mobile device or desktop computer) do EFL learners access Netflix?

3. Methodology

3.1. Research design

The present study utilizes a mixed method case study design. According to Hays (2004), case studies "involve the close examination of people, topics, issues, or programs" (p. 218). In context of this study, the people involved were Japanese university EFL students and the topic examined was the use of Netflix for language learning. The quantitative aims of the study were twofold: to investigate the frequency and the method in which the participants accessed Netflix and to analyze the types of titles, specifically, L1 or L2, the participants viewed. Qualitatively, the study looked at

the learners' opinions Netflix for L2 learning according to criteria developed by Hubbard (2009).

3.2. Participants

A total of nine Japanese EFL students in the Department of Foreign Studies at a private university provided written consent to participate in the study. The learners were enrolled in a class entitled Communicative English during the spring and fall semesters of 2016. At the end of the spring semester in July, the students were given an orientation on the goals of the study, the types of data that were to be collected, and the features of Netflix. Each student was provided with a Netflix account and password at this time and was given time to familiarize themselves with the Netflix website through the desktop computers in the classroom. Following the initial training session, the learners were given three months to use Netflix freely, without any obligation to watch TV shows or movies through the video streaming service.

3.3. Data collection and analysis

Three types of data were collected in this study: access history, viewing history, and interviews. Access history refers to how often the students used Netflix. This data was broken down according to the frequency in which the learners accessed the streaming service during each month of the study. It also pertains to the means they used to access the service, that is, via smartphone or desktop computer. Viewing history is made up of the number of TV episodes or films the participants viewed and the language the programming was based on, i.e., L1 or L2. The students' views towards Netflix were collected in October after the students' Netflix memberships had expired through semi-structured interviews where the following questions were asked:

- What do you think are the advantages of using Netflix to learn a foreign language?
- What do you think are the disadvantages of using Netflix to learn a foreign language?

One of the students was not able to attend an interview so this data was based on interviews with only eight of the participants. The interview data was audio-recorded, transcribed, and analyzed according to six criteria developed by Hubbard (2009), which can be used to determine the effectiveness of CALL on L2 learning: (1) learner efficiency, (2) learner effectiveness, (3) access, (4) convenience, (5) motivation, and (6) institutional efficiency. While these factors may be enhanced through the usage of technology, Hubbard (2009) also cautions that CALL may impede the language learning process in the aforementioned areas.

3.4. Netflix

Although it has several prominent competitors such as Amazon Prime and Hulu, Netflix is the leader in the subscription VOD market with over 109 million global members (Netflix, 2017). Not only does it have the most subscribers worldwide, it also spends the most on original content, an important factor considering the increasing costs of movie and TV show licensing, which restricts the available titles of subscription VOD services. Citing statistics from JPMorgan, Molla (2017) states that Netflix will spend \$6 billion in 2017 on producing original content, which is \$1.5 billion more than its closest competitor, Amazon Prime Video. This emphasis on original programming combined with its aggressive expansion into 190 countries has resulted in Netflix producing content in variety of languages, including Japanese, Russian, Mandarin, Spanish, and German, which makes it potentially useful as a language learning tool. Moreover, the inclusion of L1/L2 subtitles makes Netflix accessible to even beginner learners, which is important due to the cognitive load necessary for learners to understand L2 video (Sydorenko, 2010).

4. Results

4.1. RQ#1: What are EFL learners' opinions of Netflix for L2 learning?

Four themes were identified from the interview data based on Hubbard's (2009) criteria for evaluating CALL (see Table 1 for descriptions). Firstly, interview comments suggest that learning effectiveness was enhanced because of Netflix. As Table 2 depicts, all eight

of the interview participants commented that the video streaming service helped them obtain valuable L2 knowledge, particularly when it came to vocabulary learning through the use of L1/L2 subtitles. Another theme that was gleaned from the participants' comments was the potential for Netflix to increase L2 motivation, as three of the students noted that Netflix was a fun and enjoyable way to study English (Table 3). The third theme that was inferred from the interview data was better access to L2 knowledge. The first two comments in Table 4 suggest that the students were exposed to pragmatic knowledge in the L2, that is, the understanding of how to use language in particular contexts and situations. Furthermore, the third comment in Table 4 reveals that language learners can use Netflix to study foreign languages other than English. In other words, L2 students may have better access to authentic input in a variety of languages through the video streaming service. The final theme that was identified through the interview data pertains to convenience. Comments by five of the students suggest that convenience was hindered due to the amount of Internet data required in order to stream video through the service (Table 5). Consequently, the participants' usability of Netflix was restricted, leading most of them to watch video through their smartphones only when Wi-Fi was available.

Table 1. Interview themes based on Hubbard's (2009) criteria.

Theme	Description
Learning effectiveness	Learners retain language knowledge or skills longer, make deeper associations and/or learn more of what they need.
Motivation	Learners enjoy the language learning process more and thus engage more fully.
Access	Learners can get materials or experience interactions that would otherwise be difficult or impossible to get or do.
Convenience	Learners can study and practice with equal effectiveness across a wider range of times and places.

Table 2. Student comments related to learning effectiveness.

Netflix has many functions, for example, different languages and subtitles. I use Netflix with English and Japanese subtitles. So maybe I can improve my listening skills. I can learn the actors' words and know their meanings. I can learn how to use words.
Studying with Netflix I can see subtitles in English but when I see other movies on the Internet I can't see subtitles so I can't understand what they say. But with Netflix, I can see subtitles so I can understand.
I can use both Japanese and English and then in fact I can see the meaning on the screen. I listen to English and the subtitles are Japanese. By listening to English I can learn the pronunciation and at the same time I can know the meaning of the words. I want to know the meanings quickly and simply so I use subtitles in Japanese.
I think it is a good way to help us learn English and also it has subtitles so it can help us catch the words and we can learn some phrases and slangs.
I learned slang but some of them are difficult for me to understand but it is good learning for me.
Simply, my listening skills have improved a little than before summer vacation. Maybe I could learn some words which were used many times in this drama or other movies. I could catch them more easily than before. I heard "complicated" a lot in their conversations. I didn't use the word in conversations with someone but I could know it is a common word in America or in English so maybe I can use it from now on.
I can watch movies and if I don't know the meanings of words in English I can check the Japanese. I watch the movie in English with English subtitles and after I finish it I watch it again with Japanese subtitles to understand the meaning. I can learn the English spelling of words and slang.
I think Netflix's quality is better than YouTube and other sites because I can choose the language and subtitles, English or Japanese.

Table 3. Student comments related to motivation.

I think with Netflix I can learn English in a fun way because Netflix has many interesting movies and dramas. It's so useful so I can learn English positively.
We can choose our favorite movies or TV shows and because we are interested in these movies or dramas we can keep watching. And most of them have many episodes so I think it is a good way to help us learn English.
Netflix is very enjoyable.

Table 4. Student comments related to access.

The big advantage is I can learn how to speak and use English in certain situations. I mostly watched <i>House of Cards</i> . It is about the American White House and learned about culture in America. I learned how to work in the US and about working attitude so it is good for me. The advantage is that I learned about culture.
I could know how to use English phrases in particular situations. With my friends, there are some situations [where I can use English] but usually I talk in English with teachers only in class. So, these are formal situations for me since teachers are higher than me so I wanted to know more informal situations. So, I mostly watched the drama <i>Pretty Little Liars</i> . It's a school situation so I could know their conversations with family or friends. So that was the biggest good point for me.
I can watch movies not only English but other languages, for example, I watched a French movie in French one time.

Table 5. Student comments related to convenience.

I watched in McDonalds because there was Wi-Fi so the disadvantage of Netflix is it uses too much data so I couldn't use Netflix with 4g data.
If I use Netflix without Wi-Fi, my Internet is very slow so I only use Netflix with Wi-Fi.
I only use Netflix with Wi-Fi because movies are very long so it uses a lot of data.
I used Netflix at school because there is Wi-Fi. My 4g connection is not good so the school is the best place to use it.
I have a smartphone but I don't have Wi-Fi at home so I watched with a PC which was connected with a LAN cable. So, I only watched at home.

4.2. RQ#2: To what extent do EFL learners use Netflix for L2 learning?

Figure 1 below illustrates the percentage of English, Japanese, and other language titles viewed by the participants. Nearly two-thirds of the programming viewed were English-based (n = 230), while over one-third of the titles were Japanese-based (n = 138). Only one percent or four titles were based on a language other than the L1 or L2.

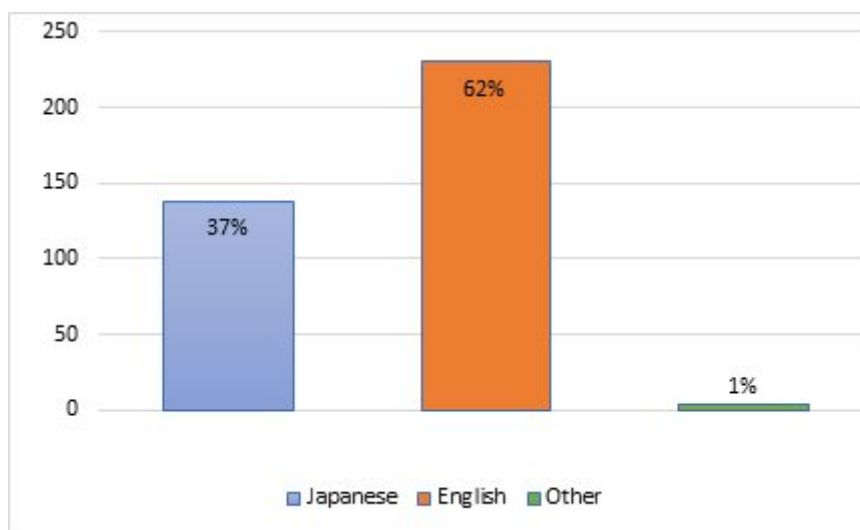


Figure 1. Breakdown of titles viewed according to language.

4.3. RQ#3: How often and by what means (mobile device or desktop computer) do EFL learners access Netflix?

Figures 2 and 3 depict the frequency and the means by which the participants accessed Netflix during the course of the study. Usage of the video streaming service was moderate during the first month, with the students accessing it 70 times during this period. The second month was by far the most popular period in which the students used Netflix, as it was accessed a total of 129 times. However, usage dropped off considerably after that, as the video streaming service was accessed only 44 times by the participants during the final month of the study. In terms of viewing method, the students preferred using mobile devices to computers, with the participants accessing Netflix with a mobile device more than 90% of the time.

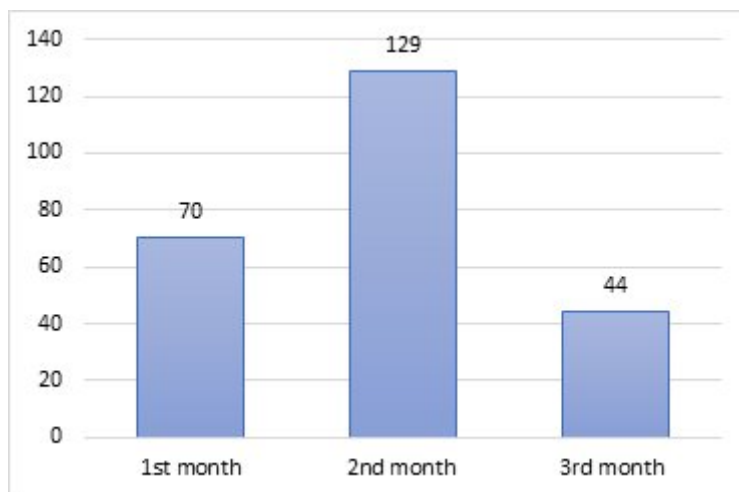


Figure 2. Monthly usage of Netflix.

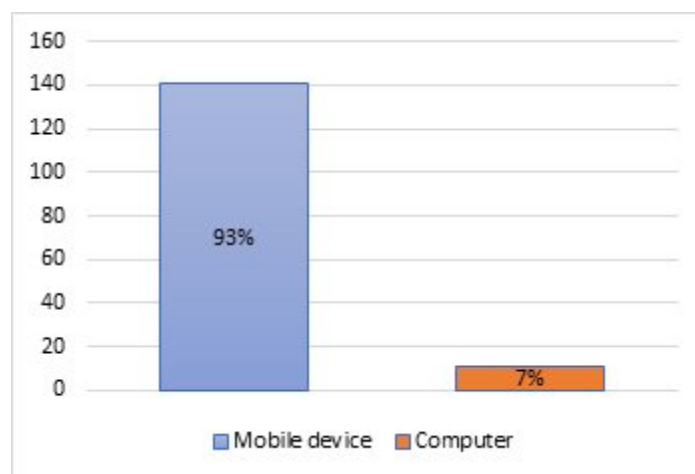


Figure 3. Netflix viewing method.

5. Discussion

A total of four themes were identified from the student interviews according to Hubbard's (2009) criteria. The first was enhanced learning effectiveness. While L2 video may be difficult for students to comprehend (Sydorenko, 2010), L1/L2 subtitles can ease this burden and make unfamiliar vocabulary more understandable for learners. These results echo previous findings on authentic video (Chapple & Curtis, 2000; King, 2002; Lin & Siyanova-Chanturia, 2014; Qiang et al., 2007) and reinforce its potential to foster L2 development through exposure to meaningful and understandable input. Increased L2 motivation was also identified as one of the themes based on the interview data. According to Lin and Siyanova-Chanturia (2014) Internet video "is more likely to appeal to learners from all proficiency and motivation levels; even learners with low L2 proficiency and low motivation to learn English will enjoy watching Internet television because it is, after all, entertaining," (p. 4). While there is some debate regarding its

significance in the context of language learning (Masgoret & Gardner, 2003), Dörnyei (1998) asserts that motivation is the catalyst that enables students to maintain and eventually reach their language goals. Without it, learners may not be able to achieve success in a L2, even if they possess the language aptitude to do so (Gardner & Lambert, 1972). Given this, the potential of Netflix and other VOD services to increase L2 motivation should not be overlooked. Better access to L2 knowledge, specifically, pragmatic knowledge and foreign language input, was an additional theme identified from the participants' responses. As Bardovi-Harlig and Dörnyei (1998) point out, there is often a stark contrast between the pragmatic ability of L2 learners and native speakers. According to Kasper (1997), this may be due to the limited range of input learners receive in the L2 classroom. Therefore, video streaming services may be able to fill this gap in learners' L2 knowledge and provide them with exposure to authentic input in a variety of situations. Moreover, Netflix produces programming and offers subtitles in multiple languages; thus, offering non-English L2 students access to meaningful input in their language of study. Although there is an abundance of resources on the Internet available to English learners, obtaining quality input outside of the classroom is often a challenge for L2 students of less studied languages (Lanvers, 2014). The fourth theme identified from the interviews was hindered convenience due to mobile data costs and restrictions. This suggests that students may avoid using VOD services if Wi-Fi is unavailable, which is in line with the results of Lu (2008) and Stockwell (2010) who found that the costs associated with mobile Internet can constrain the usage of mobile devices by L2 learners. While this may be true, Netflix has taken a step to alleviate this issue since the conclusion of the study. Users can now download select movies and TV series through the mobile app. Although many titles still cannot be downloaded, the ability to view video via smartphone without using cellular data has the potential to enhance the usability and convenience of Netflix for L2 learners

As stated previously, English titles were viewed nearly two times as often as L1 programming, which indicates that the learners took advantage of the additional opportunities to gain more knowledge about the target language and culture through Netflix. Japanese or L1 titles were still viewed frequently, which signifies that the students also used the VOD service for entertainment purposes. Lastly, although only a very small fraction of the total titles viewed were not based on English or Japanese, the fact that a few of participants watched L2 programming in languages other than English demonstrates that video streaming services can be used to study less studied foreign languages.

According to the access data, the learners used Netflix the most during the second month of the study. The most likely explanation for the high rate of usage of Netflix during this month is that the learners were on their summer vacation at this time, whereas the first and last months of the study coincided with the final exam period and the beginning of the fall semester. This finding suggests that despite its perceived advantages, students may not be able to use VOD services for language learning purposes if they have other responsibilities in their lives that take greater priority. This may limit the number of language learners willing to use these services given that they require paid monthly subscriptions.

Furthermore, the participants accessed Netflix most often through their mobile devices, which suggests that the students preferred mobility and convenience over screen size when viewing L2 video. According to Walters (2012), this preference for mobile technology symbolizes how Internet users' habits are shifting from PC's to mobile devices:

The transition from a PC or notebook to the 'always on' smart phone or tablet is not primarily about the smaller, more portable, mobile device. It is rather about the fact that computing services are now available virtually wherever and whenever the user desires them (p. 2).

The ability to access Netflix anywhere and anytime via mobile device affords learners much greater convenience than traditional DVDs, not only in terms of portability, but also in terms of the myriad of titles available for viewing. While DVD users are constrained by the number of discs they have at any given time, the only factors

limiting subscription VOD users are mobile data and the titles available in a particular streaming service.

6. Conclusion

Subscription VOD services such as Netflix offer a variety of benefits for L2 learners. Based on the comments of the participants in this study, those advantages include exposure to L2 vocabulary, increased L2 motivation, and access to pragmatic knowledge in the L2. Nevertheless, the convenience of the streaming service may be constrained due to mobile data restrictions and costs. In addition, the viewing data indicates that the students did not simply use the video streaming service for entertainment purposes, demonstrated by the fact that over 60 percent of the titles viewed were based on the L2. However, according to an analysis of the access data, EFL students may not be able to view extended L2 video such as TV shows or movies if they do not have sufficient time or mobile data to do so. With that said, the ability to download titles may enable students to use Netflix across a greater range of times and places, thereby increasing the number of opportunities learners have to use the streaming service. Lastly, the results of the study suggest that the learners prefer watching L2 video through their smartphones and tablets, illustrating the current shift away from desktop PCs to mobile technology. Despite these findings, much more research needs to be done on the use of subscription VOD with L2 learners to better understand how these types of services can influence the language learning process.

This study has several limitations that need to be addressed. First, the small sample limits the generalizations that can be made from the findings. Therefore, future research ought to incorporate a larger group of students taken from a random sample. Moreover, this study did not investigate if the learners actually made improvements in language ability. Given the potential for Netflix and other VOD services to promote vocabulary development, it would be worthwhile to see if L2 students can make lexical gains through their use in a longitudinal study. Lastly, the ability to download subtitles to a mobile device, which was not available during the study, could greatly affect students' usage of Netflix and consequently, increase its usefulness to L2 learners. Thus, it would be interesting to see if learners' viewing patterns would drastically change due to the inclusion of this feature.

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