Does Exposure to L2 Facebook Pages Impact Language Learning? An Examination of the Relation Between Facebook Reading Experience and Foreign Language Development

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As the most popular social networking site in the world, Facebook has sparked great interest from researchers to examine its educational affordances. While Facebook is oftentimes employed as a technology tool to facilitate language-classroom communication and collaboration, the current study examined the potential utilization of Facebook pages as a source of English reading input. A Facebook recognition test was developed utilizing the checklist-with-foils logic proposed by Stanovich and West (1989) to serve as an indicator of English-as-a-foreign-language learners' English reading experience on Facebook. Vietnamese undergraduate students were administered the Facebook Page Recognition Test, consisting of real and fake names of English Facebook pages, and a vocabulary size test. Their reading comprehension scores were also collected. Bivariate correlation and linear regression analyses were performed to examine the effect of L2 reading experience on Facebook on the learners' reading abilities. The findings indicated that the amount of English reading on Facebook could significantly explain the differences in vocabulary and reading comprehension achievements among the participants. The results suggest the potential use of Facebook pages as a source of reading input for language learners. Pedagogical implications are discussed.

Keywords: social networking site, Facebook, reading comprehension, vocabulary learning, Facebook Page Recognition Test

INTRODUCTION

Being the world's most popular social networking site (SNS) in the world, Facebook has sparked great interest from educational researchers. The number of studies investigating the educational impact of this social networking site has increased exponentially in recent years (Manca & Ranieri, 2016). More users have continued to join the network of Facebook due to its convenience, usefulness, and enjoyment affordances (Chuang, Lin, Chang, & Kaewmeesri, 2017).

Facebook, an excellent example of Web 2.0 technology, enables users to create content, as well as interact and comment on their peers' work (Walker & White, 2013). Facebook users are also the content contributors (e.g., posting status, sharing information, uploading photos and videos). Liaw (2017) emphasized the significance of online English websites as a great source of English as a second language (L2) reading input, as it features various text genres. Facebook, the most popular social networking site, offers its users reading content via an enormous number of continuously updated Facebook pages.

In regards to language education, Facebook is considered a powerful tool in foreign language learning and teaching. It is an excellent platform, not only for formal learning, but also for informal language learning (Wang & Chen, 2013). More than 70% of the participants in the study by Kabilan, Ahmad, and Abidin (2010) reported that they could enhance their language skills through practicing their reading and writing skills on the social networking site. They also believed Facebook enhanced their attitude, motivation, and confidence in learning English. Specifically, the English text available on Facebook motivated them to read more often and acquire more English vocabulary, thus improving their reading comprehension skills.

A perusal of previous studies revealed that past research mainly examined Facebook as a communication and collaboration tool (Bahati, 2015; Çevik, Çelik, & Haslaman, 2014; Magro et al., 2013; Nalbone et al., 2016; Roblyer et al., 2010). Little research has been done to examine the educational affordance of Facebook pages as a source of L2 reading input. More research is, therefore, needed to provide insights into the impact of L2 learning experiences on Facebook users' language skills (Kabilan, Ahmad, & Abidin, 2010; Kabilan & Zahar, 2016). While there has been abundant research on the educational potential of Facebook,

arguments for the SNS's use in education are primarily based on theories (Loan, 2012). Moreover, previous researchers have provided mixed support on whether to encourage the use of Facebook in education. The lack of empirical studies that explored the potential educational use of Facebook (Junco, 2012), particularly in foreign language teaching, has motivated the author to conduct this study. The present study was conducted to examine the effect of reading English Facebook pages on the EFL (English as a foreign language) learners' vocabulary size and reading comprehension ability. This study was undertaken with the expectation that it would provide valuable empirically backed evidence for the use of Facebook in language learning and teaching practice.

LITERATURE REVIEW

Educational Affordances of Facebook

With respect to the educational affordances of Facebook, it has been found to benefit learners in myriad ways, including enhanced classroom interaction, academic performance, and learning engagement (Chugh & Ruhi, 2017). Regarding foreign language education, Facebook can be a powerful communication tool that exerts a positive impact on language learners (Aydin, 2012). Examples include promoting online EFL writing (Buga, Capenaeta, Chirasnel, & Popa, 2014; Saeed & Ghazali, 2017), language learning autonomy (Rios, 2015), intercultural communication (Ozdemir, 2017), peer feedback (Akbari, Simons, Pilot, & Naderi, 2017), and motivation (Akbari, Naderi, Simons, & Pilot, 2016).

Akyildiz and Argan (2012) conducted a study to examine the purposes of using Facebook among 1,300 Turkish undergraduate students and found that 93.8% of the participants had used Facebook for at least two years. Various purposes of usage were reported, including browsing for information, connecting with people, and engaging in educational activities. However, the educational affordances of the social networking site have only been partially addressed in previous research (Manca & Ranieri, 2016).

Kim, Sohn, and Choi (2011), motivated by the explosive growth of social networking site use among Korean students, carried out a study to compare the SNS use motives between Korean and American learners.

Participants included 589 undergraduate students from different universities in the U.S. and Korea. They were administered a questionnaire whose questions were adapted from previous literature inquiring into different aspects of their SNS use, for instance, amount of time spent, usage purposes, and attitudes towards the social networking sites. The findings suggest that Korean students shared with their American counterparts a variety of SNS usage purposes, including seeking friends, social support, entertainment, information, and convenience. In addition to obtaining social support as the most prominent SNS usage motive, the participants were reported as relying on social networking sites for their useful source of information. Korean undergraduates also tended to have deeper involvement and commitment to their SNS use. Although significant results were procured, the researchers also pointed out the potentially insufficient accuracy of their self-reported instruments as a drawback in estimating the participants' amount of SNS use.

In foreign language education, the technological advantages of Facebook have been popularly employed to enhance students' foreign language skills. One of the reasons for the adoption of Facebook in language learning is that it provides authentic input and opportunities for communication (Kabilan, Ahmad, & Abidin, 2010). For instance, Kabilan and Zahar (2016) investigated how Facebook content could facilitate EFL learners' vocabulary acquisition. The participants were 33 Malaysian college students who attended an English course in which Facebook was used as the main learning platform. The study adopted an experimental design with a pretest and posttest assessing the students' vocabulary knowledge and use. The English learners were required to engage in assignments and activities posted on a Facebook page that included text, links, and videos. The results showed that the participants were able to improve their vocabulary significantly through reading the posts and watching videos on the Facebook page. Kabilan and Zahar (2016) also argued for the incidental acquisition of vocabulary through reading Facebook pages on the grounds of previous research on how multimedia input assisted lexical acquisition. Indeed, Mohsen and Balakumar (2011) reviewed 18 empirical studies published in international refereed journals that examined the effect of using multimedia gloss on L2 vocabulary acquisition. The reviewed studies confirmed the hypothesis that multimedia (i.e., using a combination of text, pictures, videos, etc.) was highly effective in facilitating L2

vocabulary acquisition compared to traditional reading with only one type of annotation or without any.

Facebook was also used to enhance the language learners' intercultural competence. Jin (2015) utilized Facebook as an effective social networking channel to assist Korean EFL learners' development of their intercultural communication ability. Thirty-two (32) Korean university learners at a university in Korea and 20 American students were involved in the study. A Facebook group was created comprising both the Korean and American students. The study was split into three stages. In the first phase, the participants were asked to read intercultural topics posted in the group and discuss them with other group members. In the second period, they could choose their own cultural topics to discuss together. In the last stage, each Korean student was assigned a U.S. partner to conduct an ethnographic interview via the Facebook platform about intercultural issues. After the study, the Korean participants were found to have improved their intercultural competence. The educational use of Facebook was corroborated with the study's findings as it facilitated intercultural interactions as well as improving communication competence across cultures. Finally, the author emphasized the beneficial use of Facebook in a Korean EFL context. The social networking site created an environment for learning about the culture of the target language, English, as well as opportunities for practicing meaningful cross-cultural communication.

Besides adult learners, children also benefit from learning English on Facebook. Wang and Chen (2013) recruited 60 elementary children for an informal English learning course delivered via the Facebook platform. The students were divided into treatment and control groups. While there was an experimental group that studied with the assistance of Facebook, the control group studied in a traditional classroom. The findings indicated that the children in the Facebook-conditioned group outperformed their control group peers and had a more positive attitude towards their new learning experience on the social networking site.

Facebook was also found to have enhanced language learners' learning achievement and motivation. Akbari, Pilot, and Simons (2015) conducted an experimental study to examine the effect of Facebook use on two groups of graduate students. The treatment group learned English and interacted together in a Facebook group, whereas the control group met in person to discuss the course content. The results showed that the experimental group learners significantly outperformed those in the

control group. The former also achieved higher levels of learning motivation in regard to senses of relatedness, learning autonomy, and competence.

A comprehensive literature review by Manca and Ranieri (2016) pointed out that previous researchers primarily argued for the implementation of Facebook in classrooms on a theoretical basis, that is, based on learners' attitudes and general perceptions towards the SNS, rather than on providing empirical evidence of the participants' academic improvement. Hence, more research is warranted to investigate the educational affordances of Facebook through corroboration with empirical evidence.

On the whole, as more and more people continue joining the social networking site, the potential of Facebook is enormous and needs to be further explored so as to inform the language educators and curriculum designers of its educational potentials.

Free Recreational Reading and the Development of Reading Abilities

Researchers have consistently confirmed a positive link between the amount of pleasure reading experience, lexical knowledge, and reading comprehension ability. For example, Cunningham and Stanovich (1991) studied how out-of-school reading experience was associated with children's verbal fluency and vocabulary. The participants were administered a vocabulary test, a verbal fluency test, a book Title Recognition Test (TRT), and a general cognitive ability test. The TRT functioned as a diagnostic test that estimated the participants' free reading volume. It included a checklist of both real and fake book titles mixed together randomly. The participants were asked to check only the titles of the books they read. The TRT was scored by subtracting the number of incorrect choices from the number of correct choices. This is known as checklist-with-foils logic, originally devised for recognition tests by Stanovich and West (1989). The findings indicated that the book reading experience could significantly predict the children's verbal fluency and vocabulary, even after controlling for their age and general cognitive ability. In the same vein, Zhang, Georgiou, Xu, Liu, Li, and Shu (2017) examined how book reading experience impacted the children's breadth and depth of lexical knowledge. Participants were 147

third-graders in a kindergarten in China. The children and their parents took different types of reading experience indicators (e.g., book title recognition tests – a checklist including both real and fake book titles, a reading-habit diary, and a survey). After controlling for confounding factors (i.e., their nonverbal IQ, age, and parents' socioeconomic status), the amount of reading experience could still significantly account for the breadth and depth of the participants' lexical knowledge.

Cipielewski and Stanovich (1992) attempted to predict children's reading comprehension growth from third to fifth grade through designing a longitudinal study. They designed an Author Recognition Test and a Title Recognition Test. While the former included real and fake book author names, the latter comprised real and fake book titles. The two tests were also scored by subtracting the total number of incorrect names checked from the total number of correct names checked. A hierarchical linear regression was employed, controlling for the effect of the third-grade reading achievement and loading the two recognition tests into the model as predictors of the children's reading comprehension achievement in their fifth grade. The results supported the hypothesis that free reading experience was an independent contributor to the participants' reading growth through a course of three years. In a meta-analysis study by Mol and Bus (2011), they reviewed 99 studies that investigated the effect of free reading experience on reading skills. The results corroborated the causal reciprocal relationships between the amount of free reading and the development of reading abilities. To elaborate, the moderate relation between the two aforementioned variables suggested that higher-ability readers tended to read more, thus improving their reading abilities (Mol & Bus, 2011). Moreover, both high- and low-achieving readers could benefit from the book reading experience.

The positive effect of non-school recreational reading on language learners has been attested in different educational contexts, both in Western countries (e.g., the U.S., Canada, and the U.K.) and in Asian contexts (e.g., Taiwan and Korea). To examine the impact of free reading experience on foreign language skill development, Ko and Hey-Jung (2004) recruited 140 sixth-grade EFL students in Korea for their study. The children were assigned to experimental and control groups. While the control group had two forty-five-minute English sessions with a regular textbook, the students in the experimental group were allowed to read books of their own selection in the second session

of their English class. The intervention lasted for sixteen weeks. The results showed that children in the experimental group improved their vocabulary, reading, spelling, and sentence writing more than the control group. In addition, they also had a more positive attitude and higher confidence in reading and writing practice.

In short, the amount of recreational reading experience has been consistently found to associate with the development of learners' vocabulary and reading comprehension. The more an individual is exposed to reading text, the better their reading ability becomes.

Research Questions

The current study was carried out to investigate the effect of reading English text on Facebook on EFL learners' lexical size and reading comprehension ability. Specifically, a new recognition test was developed using Facebook pages as its items to estimate the EFL learners' L2 reading experience on Facebook.

The research questions of the study are as follows:
1. Can English reading experience on Facebook predict Vietnamese EFL learners' vocabulary size?
2. Can English reading experience on Facebook predict Vietnamese EFL learners' reading comprehension ability?

METHOD

Participants

The participants were 97 undergraduate EFL students (10 males, 87 females) at a university in Vietnam, majoring in English. Their average age was around 21 years old. The participants usually started learning English as a foreign language (EFL) when they were in their sixth grade and had been learning English for approximately nine years. They came from various regions in Vietnam and had mixed levels of English proficiency. Due to the "traditional" way of language teaching in Vietnam, which primarily emphasizes grammatical structures and exercises, most of the participants did not have much free reading in English until they entered the first year of their undergraduate program.

Instruments

Facebook Page Recognition Test (FPRT)

Measuring the amount of reading experience has, however, proved to be a challenging task. Using self-report measures (e.g., reading-habit questionnaires and diaries) might be vulnerable to social bias as participants oftentimes tend to provide socially desirable answers when recalling their reading amount (Cunningham & Stanovich, 1991; Zhang et al., 2017). Acknowledging the shortcoming of self-report measures, Stanovich and West (1989) introduced a new method for estimating individual differences in reading amount: a recognition test. They developed a checklist instrument called the Author Recognition Test. Specifically, the Author Recognition Test included a list of book authors and non-authors (foils, which were randomly interspersed). The test had a short administration time and required a low-cognitive load, as the participants only needed to check the authors' names they recognized (Stanovich & West, 1989). Scoring for the recognition test was calculated by subtracting the proportion of fake names checked from the proportion of correct names chosen. This practice of estimating a proxy amount of reading experience using a checklist of real and foil names is commonly referred to as the "checklist-with-foils" logic (see also Stanovich & West, 1989).

As reading habits are culturally specific (Stainthorp, 1997), that is, people from different cultures and contexts vary in their reading habits and materials, researchers in previous studies were encouraged to create their own version of recognition tests to capture their students' reading experience. For instance, Stainthorp (1997) argued that the Title Recognition Test (i.e., a checklist involving real and fake book titles) developed by Cunningham and Stanovich (1991) was more suitable for examining reading habits in North America, and it was necessary to develop a new recognition test for U.K. participants. She then developed a Children's Author Recognition Test − UK (CART-UK). Three follow-up minor studies indicated that the U.K. version of the Author Recognition Test outperformed its comparable version developed for North America children. Stainthorp concluded that the recognition test could be employed as an objective measure of a person's reading experience, and it was culturally sensitive. By the same token, Chen and Fang (2016) developed Chinese versions of the Author Recognition Test and Title Recognition Test to evaluate the effect of print exposure on

Taiwanese children. Both of the aforementioned instruments significantly predicted the Taiwanese fifth-graders' vocabulary and reading comprehension abilities. In summary, the checklist-with-foils recognition test was widely employed and appraised by previous researchers as "the purest and best measure of print exposure to date" (McBride-Chang et al., 1993, p. 237) and "an excellent addition" to traditional instruments in examining reading behaviors (Stainthorp, 1997, p. 150).

In the current study, a checklist instrument was developed by the author to estimate EFL learners' English reading amount on Facebook, that is, the Facebook Page Recognition Test (FPRT). Similar to recognition tests widely used in previous studies (e.g., Acheson, Wells, & MacDonald, 2008; Cipielewski & Stanovich, 1992; Martin-Chang & Gould, 2008; Zhang et al., 2017), the FPRT included a combined list of real and fake names of Facebook pages that were randomly mixed together.

The process of designing the Facebook Page Recognition Test (FPRT) involved several steps with the guidance of previous studies. Firstly, to collect the most popular English Facebook pages, a survey was carried out with 78 undergraduate Vietnamese EFL students, asking them to write down their top ten English Facebook pages that they most frequently read. This is because the recognition test should include names of the reading sources that participants commonly read. Cipielewski and Stanovich (1992) collected the most popular names of children book authors and book titles to create their Author Recognition Test and Title Recognition Test. The second step was to examine the gathered Facebook pages to ensure they had adequate text content. This is important in that unlike book reading practice, where children tend to read linearly for a long duration of time, online reading on Facebook commonly occurs in a non-linear, more superficial manner (Loan, 2012). As a result, choosing the English Facebook pages that offered adequate reading input is of great significance. Those collected Facebook pages that primarily posted videos and pictures were not included as real names in the FPRT. The scrupulous selection process resulted in 33 English Facebook pages featuring a variety of reading topics (e.g., news, self-help information, and educational pages), as suggested by Stanovich and Cunningham (1992), to capture a wide range of participants' reading experience (see Appendix). Another 17 foils or fake names of Facebook pages were created by the author and then randomly interspersed with the real names in order to create a 50-item Facebook Page Recognition

Test. The scoring method for the FPRT was similar to the scoring procedure for the recognition tests in prior studies, that is, taking the total number of correct choices and subtracting the total number of foils checked (e.g., Goldman & Manis, 2013; Stanovich & West, 1989; Cipielewski & Stanovich, 1992; Zhang et al., 2017).

With respect to the method of examining the reliability of the recognition test, previous researchers tended to have different approaches. Although Cronbach's α and split-half reliability were usually used to examine the reliability of the recognition test (e.g., Cipielewski & Stanovich, 1992; Martin-Chang & Gould, 2008; Stanovich & West, 1989), the employment of Cronbach's α was also argued to be appropriate for binary data (i.e., questions containing only two options) (Raykov, Dimitrov, & Asparouhov, 2010). Indeed, the participants' decision to make a guess, though having little to do with the recognition test reliability, may reduce the Cronbach's α value of the test. As observed by the author, some participants were anxious about scoring low on the FPRT and thus made more guesses (i.e., incorrect choices). This issue suggests that it is insufficient and may be even inappropriate to judge the reliability of a recognition test solely based on Cronbach's α value as argued by Raykov, Dimitrov, and Asparouhov (2010) mentioned above.

Alternative methods for examining the reliability of the recognition test employed in prior research included examining the test–retest reliability (e.g., Zhang et al., 2017), inspecting whether the recognition test could differentiate between good and poor readers (e.g., Stainthorp, 1997) or comparing its statistical power to that of other self-report measures (e.g., Acheson, Wells, & MacDonald, 2008). The validity and reliability of the FPRT in this study will be examined in light of its predictive power of the participants' vocabulary and reading comprehension.

Vocabulary Size Test

The vocabulary size test employed in the present research was a shorter version of the original vocabulary size test by Nation and Beglar (2007), which included 40 multiple-choice questions. The test aimed to measure the EFL learners' decontextualized vocabulary (Nation, 2006). Due to the mixed level of the EFL participants, the author chose the bilingual version (English-Vietnamese) of the aforementioned test by Le Thi Cam Nguyen and Nation (2011) to ensure the students'

understanding of the four options to the question. The lexical measurement tool has high reliability, which was reported in Beglar's (2010) study for the monolingual version (Rasch model reliability > 0.96), and in Le Thi Cam Nguyen and Nation's (2011) study for the bilingual version (English–Vietnamese).

Standardized Reading Comprehension

The reading comprehension scores of the participants were collected from the institution's database. The standardized reading comprehension test was the summative test to qualify for the course, the highest level of academic reading-skill training based on the institution's curriculum. The allowed time for the test was 90 minutes, and the maximum score was 5 points (0.2 points for each question).

After reading a given academic text (around 800 words), examinees needed to utilize different reading skills to accomplish five components of the test. In the first section, test-takers needed to match provided headings with the text paragraphs. The second part necessitated students to answer five multiple-choice questions about the summary and specific details in the aforesaid reading text. While the fourth component required learners to rewrite two sentences extracted from the reading text, the test-takers needed to write a short summary of the reading text (100–120 words) in the final section. The possible explanation for the written part of the test is that the tertiary institution adopted an integrative reading-writing teaching approach to develop the students' L2 literacy skills.

The final reading test was developed by at least three English lecturers with more than fifteen years of combined teaching experience. The grading rubrics were thoroughly discussed among the examiners to ensure consistency in the grading process. The reading assessment test was employed as the official test of the department and was improved continually over the years, attesting to it possessing the necessary validity and reliability.

Data Analysis

The analysis of the study was carried out with SPSS software version 22.0. The descriptive statistics of three variables in the study, (i.e., the FPRT, the vocabulary, and reading achievement scores) were first examined and then their correlations with one another were inspected. Simple linear regression analysis was subsequently performed

by loading the FPRT as an independent variable and the participants' reading abilities (i.e., vocabulary and reading comprehension scores) as dependent variables. Assumptions for regression analysis were investigated using SPSS software. A scatterplot result showed that there was a positive linear relationship between the independent and dependent variables, and no significant outliers were detected. The standardized residual scatterplot of the data, plotting standardized residuals (y-axis) versus predicted standardized values (x-axis), also indicated that the data met the assumption of homoscedasticity, and its residuals were relatively normally distributed. The first simple linear regression was performed by employing the FPRT as an independent variable to predict the vocabulary size test scores as the dependent variable. Likewise, the next linear regression analysis was to examine the predictability of the FPRT on the participants' reading comprehension ability.

RESULTS

Descriptive Statistics and Pearson's Correlations

Descriptive analysis was performed to provide a general overview of the study variables, including the participants' proxy exposure to English Facebook pages and their reading abilities. Table 1 presents the descriptive statistics of the FPRT, vocabulary, and reading comprehension scores.

TABLE 1. Descriptive Statistics of the FPRT, Vocabulary, and Reading Comprehension Scores

Variables	N	Mean	SD	Min	Max
FPRT	97	5.30	3.51	0.0	14.0
Vocabulary	97	18.60	6.61	4.0	34
Reading Comprehension	97	2.89	0.69	1.40	4.70

Note. FPRT = Facebook Page Recognition Test.

Subsequently, Pearson's correlation analysis was conducted to investigate the interplay among the three aforementioned variables. As can be seen from Table 2, the FPRT was significantly associated with the EFL students' vocabulary size, $r(95) = 0.36$, $p < 0.01$, and their reading

comprehension ability, r (95) = 0.24, $p < 0.05$. The findings are in line with most of the previous studies in examining the effect of free reading experience on the learners' vocabulary and reading comprehension skills (e.g., Cunningham & Stanovich, 1991; Zhang et al., 2017). In addition, the lexical scores were moderately correlated with the reading comprehension ability of the EFL learners, r (95) = 0.24, $p < 0.01$.

TABLE 2. Correlations Between FPRT, Vocabulary, and Reading Comprehension ($N = 97$)

Variables	FPRT	Vocabulary	Reading Comprehension
FPRT	—		
Vocabulary	0.36**	—	
Reading Comprehension	0.24*	0.48**	—

Note. FPRT = Facebook Page Recognition Test; * $p < 0.05$; ** $p < 0.01$.

Predicting EFL Learners' Vocabulary Size and Reading Comprehension Achievement

To further investigate the effect of the L2 reading on Facebook on the participants' reading-related abilities, two simple linear regression analyses were carried out. The results of the linear regression analyses on the employment of the FPRT as the predictor of vocabulary and reading comprehension achievements are shown in Table 3. In the first regression analysis, the FPRT was entered as an independent variable and vocabulary scores as the dependent variable. In other words, the analysis employed the FPRT as a predictor of the EFL learners' vocabulary size scores. The results showed that the FPRT could significantly explain 12.9% variance of the participants' vocabulary test performance ($\beta = 0.36$, $p < 0.01$).

TABLE 3. FPRT Predicting EFL Learners' Vocabulary Size and Reading Comprehension

Predictor	$R2$	B	SE	β	t	F
Vocabulary Size						
FPRT	0.129	0.677	0.18	0.36	3.758	14.121**
Reading Comprehension						
FPRT	0.057	0.047	0.20	0.238	2.392	5.720*

With respect to the second regression analysis, reading comprehension achievement was loaded in the equation as a dependent variable, which replaced the vocabulary variable. The FPRT was still employed as an independent variable (i.e., the predictor). The statistical results showed that the FPRT again significantly accounted for 5.7% variance in the participants' academic reading comprehension ability (β = 0.24, p < 0.05). Overall, the exposure to English Facebook pages significantly contributed to the individual differences in reading-related skills among the Vietnamese EFL learners. The results are resonant with many previous studies on the effect of free reading experience on lexical and reading skills (e.g., Martin-Chang & Gould, 2008; Stanovich & Cunningham, 1992). For example, Grant, Wilson, and Gottardo (2007) investigated how the amount of recreational reading experience impacted learners with and without reading disabilities. Thirty (30) college students were recruited for the purpose of the study. Their reading comprehension ability was measured with a standardized reading comprehension test under timed and untimed conditions. The participants were also administered several measures to serve as indicators of their reading experience (i.e., an author recognition test, a magazine recognition test, and a reading-habit survey). The findings indicated that free reading experience was a potent predictor of the participants' vocabulary knowledge and reading comprehension in both timed and untimed conditions.

DISCUSSION

The research was conducted to examine whether the amount of L2 reading on Facebook pages could explain the individual differences in reading abilities among the Vietnamese college students. The statistical results indicated that the FPRT was positively correlated with both vocabulary size and reading proficiency as well as being the significant predictors of the EFL learners' reading abilities.

The empirical findings of the current study contribute to the research literature both in terms of theoretical knowledge and methodology. Regarding the theoretical aspect, while prior research primarily examined Facebook for its technological aspects, that is, for communication and as an online learning management system (e.g., Bahati, 2015; Karal, Kokoc

& Cakir, 2017), the current study, to the author's knowledge, is the first to investigate Facebook as a source of L2 reading input backed by empirical evidence. Although whether reading English Facebook pages has a causal relationship with the development of EFL learners' reading abilities is still inconclusive in this research, the findings are certainly suggestive of the potential benefits of exposure to English text on Facebook pages. Indeed, as indicated in the result section, the EFL learners who read more English on Facebook tended to have a larger vocabulary size and better academic reading achievement. Further regression analyses further confirmed L2 recreational reading on Facebook pages to be a significant predictor of the EFL learners' lexical and reading comprehension achievements.

Regarding the research methodology, the author's self-developed recognition test was also the first recognition test designed to estimate L2 reading experience on the Internet, that is, on Facebook. This implies that checklist-with-foils logic proposed by Stanovich and West (1989) in measuring print exposure (i.e., print-based reading experience) can be extended to the online reading environment. Specifically, the Facebook Page Recognition Test significantly accounted for the variance in both lexical and reading comprehension ability of the EFL learners. This is no trivial finding, as checklist recognition tests have been mainly employed to estimate the learners' print-based reading experience. In contrast, the current study successfully extended the utilization of checklist measures to the online reading environment.

Utilizing self-report measures (e.g., diaries and reading-habit questionnaires) to measure the learners' reading experience can be problematic due to its possible social bias (Cipielewski & Stanovich, 1992; Stanovich & West, 1989), that is, people tend to overestimate their reading volume. In this research, the FPRT proved to be an objective and reliable checklist measure to address the learners' exposure to L2 online Facebook text. It should, however, be noted that, as with other recognition tests employed in prior studies, the FPRT only serves to indicate a proxy of individual differences in the reading volume instead of measuring an absolute reading amount in the case of self-report instruments (Chen & Fang, 2016; Cipilewski & Stanovich, 1992; Zhang et al, 2017).

The study's results are indicative of the educational affordance of English Facebook pages to facilitate learners' L2 reading development and reading autonomy. Indeed, the majority of English Facebook pages

collected for the FPRT (see Appendix) were for the students' personal self-learning and personal reading interest, rather than for schoolwork. Specifically, popularly reported Facebook pages fell into the categories of entertainment, food, and news. This is certainly indicative of the fact that the social networking site can create a friendly English reading environment that caters to the various reading interests of the EFL learners.

Particularly noteworthy is the fact that the participants' informal free English reading on Facebook is positively associated with their formal, academic reading proficiency. With reference to pedagogical implications, language teachers and educators should not underestimate the power of informal education (i.e., out-of-school reading for recreational purposes). The findings added empirical evidence substantiating the claims in previous studies that free voluntary reading can enhance favorable literacy development (e.g., Krashen, 2004; Lee, 2007, 2015; Mason, 2006). For instance, according to Krashen (2004), recreational reading positively impacts the readers' reading development in myriad ways, involving enhancing background knowledge, vocabulary knowledge, reading, spelling, writing, and motivation.

The results in this study may also hold the potential of reconciling an on-going argument regarding whether informational text genre and the nature of online reading are facilitative for reading skill development. In previous research, only the fiction-genre reading habit was found to associate with reading achievement, whereas informational-text reading on the Internet was not (e.g., Spear-Swerling, Brucker, & Alfano, 2010). Concern for the nature of online reading was also raised by Loan (2012) who found that online readers were inclined to skim, scan, and read non-consequentially and in a shallow manner. The findings in this study, nonetheless, argue for the positive effect of L2 Facebook reading of informational text on EFL learners' reading development.

Facebook can provide EFL learners with interesting reading sources through its enormous quantity of English Facebook pages. Language teachers can certainly make use of this valuable source of L2 reading input to benefit their classroom practice. For instance, using reading text from Facebook pages can increase the authenticity of language lesson materials. This is because the English Facebook pages are not originally designed for language teaching purposes. They are real-life reading input, providing a variety of news and information for public readers around the world. Recreational reading on social networking sites has been

found to help enhance students' language learning motivation (Kabilan, Ahmad, & Abidin, 2010). Also, by encouraging students to share what they read or learn from Facebook pages, learners' reading autonomy can be further promoted and their linguistic abilities enhanced.

The findings in the present study are also meaningful and highly likely to be applicable to other language learning contexts where learners popularly use social networking sites. Take South Korean's language learning context, for example. Facebook has started to gain momentum in popularity in South Korea as an increasing number of Koreans have started to use SNSs for its global connection and flexible adaptation to different mobile platforms (Ghedin, 2013). By 2016, Facebook has become the most popular social networking site platform in South Korea (eMarketer, 2016). Similar to other countries in Asia, such as Malaysia or Vietnam, grammar-translation used to be a popular teaching method in language classrooms in South Korea (Garton, 2014). In an effort to improve the English competence of Korean students, language teachers have been encouraged to adopt the communicative language teaching approach and utilize technology to enhance the learners' English learning experience (Garton, 2014). Additionally, a lack of learning motivation and interest in learning English is a common problem among Asian EFL learners, including Korean EFL learners (Niederhauser, 2012; O'Donnell, 2006). As indicated in previous studies, the use of authentic materials in the language classroom can help to arouse learners' interest and learning motivation (Al Azri & Al-Rashdi, 2014). Therefore, utilizing Facebook page resources in class and encouraging more recreational reading outside classrooms can assist language learners in enhancing linguistic skill and having more favorable language learning experiences.

CONCLUSIONS

In a nutshell, the current research provides empirical evidence supporting the educational affordance of Facebook pages being a valuable source of L2 reading input. By employing the checklist-with-foils logic (Stanovich and West, 1989), the author developed a Facebook Page Recognition Test to measure the EFL learners' proxy of L2 reading amount on the social networking site. The advantage of environmental factors (i.e., exposure to English text on Facebook) for

reading skill development was supported in the study. The amount of English reading on Facebook was correlated with the participants' reading abilities and also a predictor of their lexical knowledge and reading comprehension.

Several limitations of the current study can be mentioned. Firstly, participants could have read many other English Facebook pages that were not included in the FPRT. Hence, more items should be included in the FPRT to capture a wider range of the participants' reading experience, thus improving the validity and reliability of the test. Secondly, the foil-checking rate was unexpectedly higher in the present study compared to previous studies that employed the recognition test (e.g., Stanovich and Cunningham, 1992), where participants only checked a few foils. This could have attenuated the statistical power of the FPRT. More careful instructions should, therefore, be provided to restrain the study participants from making guesses when completing the recognition test. Further research investigating the consequences of Facebook reading could include designing checklist measures that are identical with the FPRT. Despite the aforementioned limitations, rigorous effort has been made in the study to provide valuable empirical research evidence for the educational use of Facebook as well as pedagogical suggestions to utilize the social networking site to enhance students' learning motivation and linguistic competence.

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APPENDIX

Facebook Page Recognition Test (FPRT)

Below is a list of English Facebook pages. Please check only the names of the Facebook pages that you liked. Even if you know the name of the Facebook page but you did not like it, please do not check, either.

1. ☐ American English at State
2. ☐ Know Cooking
3. ☐ English Essays
4. ☐ Moonlight Institute
5. ☐ BBC Learning English
6. ☐ Tu tin hoc tot IELTS
7. ☐ VOA Learning English
8. ☐ Science for Us
9. ☐ National Geographic
10. ☐ BBC News
11. ☐ English News for Learners
12. ☐ Discovery
13. ☐ Sarcasm
14. ☐ Rainbow News
15. ☐ 5-Minute Crafts
16. ☐ Learn English with Daniel
17. ☐ Cambridge English
18. ☐ CNN
19. ☐ Animal in Nature
20. ☐ Diply
21. ☐ 9GAG
22. ☐ Real Pet Lovers
23. ☐ Humans of New York
24. ☐ California Times
25. ☐ CNN International
26. ☐ Book Desire
27. ☐ IELTS Simon
28. ☐ The New York Times
29. ☐ IELTS Crack
30. ☐ Disney
31. ☐ Awesome me
32. ☐ Barack Obama
33. ☐ Koreaboo
34. ☐ The Dodo
35. ☐ English for Your Good
36. ☐ ABC News
37. ☐ Poem Reading
38. ☐ LearnEnglish – British Council
39. ☐ TED
40. ☐ IELTSPractice.com
41. ☐ Business Insider
42. ☐ Tasty
43. ☐ Tell me more about success
44. ☐ Learn English
45. ☐ English+
46. ☐ MTV
47. ☐ Food Network
48. ☐ BrainyQuote
49. ☐ Good Thoughts for Life
50. ☐ Bill Gates