

AFAIK, IDK That Word: Investigating Learners' Receptive Knowledge of Online Acronyms

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This paper presents data capturing Korean university students' familiarity with English online acronyms, examines factors that may predict this familiarity, and presents an explicit instruction intervention involving vocabulary knowledge of online acronyms. The Vocabulary Size Test (VST) measured students' vocabulary size, while a self-report survey measured social media engagement and the percentage of engagement that occurred in English. The Vocabulary Knowledge Scale (VKS) measured initial familiarity and gains in vocabulary knowledge. The results suggest that English learners in Korean universities are not well-acquainted with English online acronyms, but that receptive vocabulary size and English-language social media engagement may offer some predictive power regarding their level of familiarity. An explicit treatment of acronym expansions and their uses resulted in a significant and robust gain in vocabulary knowledge, suggesting that explicit instruction of online acronyms may improve digital literacy and comprehension of computer-mediated communication (CMC) more effectively than simply relying on incidental gains through repeat exposures over time.

Key words: computer-mediated communication, digital literacy, online English use, receptive vocabulary, explicit vocabulary instruction

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1. INTRODUCTION

English language content accounts for 58.8% of all online content, while Korean language content accounts for only 0.6% (Statista, 2023). As Korean schools and universities seek to foster digital literacy among students, the ability not only to read but to interact in English becomes more important than ever before (Kim, 2019; Meurant, 2009). Digital literacy refers to the ability to utilize digital technology for learning or other purposes easily, safely, and successfully (Kim, 2019). While digital literacy is concerned more with critical thinking and evaluation of information obtained (Meurant, 2009), these skills cannot be obtained without traditional literacy. English instruction plays an important role in developing digital literacy. Many English instructional materials remain focused on academic or formal language, due to concerns that the English used online, especially on social media, is not “proper” English (Caliboso, 2021; Tso, 2019). However, if English learners in Korea or elsewhere wish to become more digitally literate, they must interact with the English actually in use online, not with the English that traditionalists wish were in use.

Computer-mediated communication (CMC) refers to any person-to-person communication conducted via a computer or similar device, including emails, text messages, forum posts, comment sections, and so on. Online English, as a form of CMC, is different from face-to-face spoken English or formal written English. It mixes elements of both types of communication to different degrees depending on the medium (Tagliamonte, 2015). Some registers, such as email or discussion boards, are more similar to formal written English, while the English of messaging apps and social media, while often written, tends to more closely follow the grammar and style of spoken English. English CMC also has many differences from either of the traditional language registers. While some of the variations in English that appear in CMC such as “133T speak” (or “leet,” being short for *elite*, with numbers 1 and 3 representing letters L and E) are temporary fads that seem to be fading away (Trudgill, 2014), other variations seem to be more robust and may initiate or facilitate actual linguistic change (Sayers, 2014).

One facet of online English that seems to be robust is a tendency to initialize or create acronyms out of formulaic expressions (AbuSa’aleek, 2013; Ferrando-Rocher, 2023; Moehkardi, 2016). Many of these online acronyms¹, for example, LOL [laugh out loud], make the transition to offline English, and take on the grammar patterns of offline language; e.g., someone saying, “*I LOLed at his jokes.*” Native speakers sometimes puzzle over these acronyms when they are initially encountered, even within context. Making discourse harder

¹ Moehkardi (2016) points out that an initialization is technically only an acronym if it becomes pronounced as a new word, takes on affixation, or gains other lexical features. Many of the online expressions in this paper are technically initializations, but the term “online acronym” is used to refer to them for brevity and clarity.

for outsiders to follow may be one reason for their development (AbuSa'aleek, 2013). It stands to reason that if L1 English speakers struggle with online acronyms, most L2 English learners will struggle with them as well. While many studies have analyzed online English as a means of communication or explored aspects of online acronyms as units of lexis, few studies have examined learner acquisition of online acronyms. This study seeks to investigate how well university students in Korea understand online acronyms, examine factors that may predict understanding of these terms, and explore how easily online acronyms can be learned.

2. LITERATURE REVIEW

2.1. Computer-Mediated Communication and Language Change

Computer-mediated communication (CMC) refers to any sort of communication that is device-mediated, both online and via person-to-person instant text or voice messages on phones (Tagliamonte, 2015). Kiesler and colleagues' 1984 study (as cited in Tagliamonte, 2015) states that the term was created in the 1980s and initially referred to language used by computer specialists and others on the pre-World Wide Web Internet. With the rise of email, instant messaging, and now social media, most people communicate through CMC, including English learners who use CMC as a way to improve their language abilities (Tso, 2019). CMC seems to bridge a gap between traditional written grammar and observable spoken grammar, but the form is fluid and depends on the medium. Emails tend to follow written grammar rules more so than text messages or tweets (posts on the social media platform X, formerly known as Twitter), which more heavily resemble spoken grammar (Tagliamonte, 2015). One aspect of CMC that is original to the register is the use of initialization or creation of acronyms for commonly used formulaic language, rather than for the names of organizations [e.g., BBC, NASA] or scientific terms [e.g., DNA, CFCs] (Moehkardi, 2016). These online acronyms save time and space for users who would be typing these common phrases often (AbuSa'aleek, 2013), although there is dispute over whether the character limits of text messages were an impetus for their formation (Tagliamonte, 2015).

Studies of these online acronyms have mostly focused on identification plus cataloging, or attempts to gauge the frequency of use. Moehkardi (2016) discusses the formation of neologisms in CMC, including the formation of acronyms/initializations, clipping, compounding, and blending. In discussing acronyms, Moehkardi focuses on those that can be pronounced as new words but points out that often letters or numbers may be substituted to represent homophones, such as 2 for *to/too*, or C for *see*. Tagliamonte (2015) analyzes

differences in register across emails, instant messages on a computer, and phone messaging, based on a corpus of 179,000 words compiled from a small number of users ($n = 45$). Tagliamonte finds that each register has its own characteristics, but detects no loss of grammatical ability despite the different forms of communication observed in each. Dykes (2021) presents findings of language change due to CMC, in particular describing the creation and rapid dissemination of neologisms such as “stonks” (corporate stocks) once a particular internet subculture that used the expression enters wider public knowledge. In the case of “stonks,” the term, based on a common typo, was popular on investment subReddits but became international news when the attempts to prevent shorting of GameStop stocks in early 2021 became newsworthy. Ertekin and Pryor (2022) compiled a corpus of social media posts from comments posted to a video streaming service during a Super Bowl halftime show. They identified online acronyms in the corpus and examined their frequency, finding that most were infrequent in use, but that some were frequent. They suggest that familiarity with online acronyms, for native speakers or language learners, will vary with how often the learners are exposed to the vocabulary.

Linguistic changes tend to happen in either global shifts in word meaning or usage such as the modification of verbs over time, or else in local cultural shifts such as the formation of new words to express new technologies (Hamilton, Leskovec, & Jurafsky, 2016). Dykes (2021) argues that the increased pace of technological development in the online sphere has increased the rate of language change in English. This is a matter of some debate, however. Sayers (2014) suggests that media, especially interactive online media, acts as a facilitator of linguistic change without the need for it to spread from region to region through in-person contact. Trudgill (2014), responding to Sayers, believes that lexis may be spread through media but true linguistic changes still only happen through social interaction. However, Trudgill seems to be considering mostly one-way traditional media such as radio, film, and television rather than social media, which was already a prominent aspect of culture when his criticisms were penned. If Dykes (2021) is correct, then language learners and language teachers would do well to pay attention to online linguistic developments, as these will be needed by learners to communicate online.

Linguistic development for language learners can and does result from time spent online. Brevik (2019) reports that the more time learners spend online, the more their L2 reading scores improved. Tso (2019) claims that learners feel that frequent use of the internet helps to improve their language ability, and that slang, abbreviations, and other artifacts of CMC do not hinder their writing ability, although some learners do feel that it may negatively impact their grammar. Caliboso (2021) reports similar findings, with learners reporting that CMC allows for increases in vocabulary knowledge and greater opportunities to practice English writing, but that their grammar and spelling may suffer. Ferrando-Rocher (2023) also states that knowledge of online acronyms in particular helps learners understand English

CMC, and increases motivation and engagement.

2.2. Vocabulary Acquisition Via CMC

New vocabulary is learned either through explicit instruction from a teacher or teaching resource such as a textbook or learning app, or else through incidental exposure to new words over time as the language learners interact with the language (Schmitt & Schmitt, 2020). It should be noted that vocabulary is being used in this paper to include single words but also lexicalized phrases, also known as lexical bundles, such as the online acronyms used in this study. For incidental exposure to be most effective, the learner must be exposed to the new vocabulary multiple times within a comprehensible context (Waring & Takaki, 2003; Webb, 2007). Each time the learner is exposed to the new vocabulary item, there is a possibility that more word knowledge will be gained. This includes familiarity with the word form (spelling or pronunciation), word class, semantics, usage, collocations, and much more (Schmitt & Schmitt, 2020). Typically, the learner gains receptive knowledge of the new vocabulary before they feel confident using the vocabulary productively. Learners will understand the vocabulary they read or hear before they use it in their speaking or writing.

There is resistance among educators to the teaching of “online English” due to it not conforming to standard grammar, spelling, or usage patterns of written and spoken English (Caliboso, 2021; Tso, 2019). However, educators should respond to the needs of learners to communicate online in the 21st century (Dykes, 2021). Learners report that they believe online interactions can aid their language acquisition (Ferrando-Rocher, 2023; Tso, 2019). Kuppens (2010) reports that passive media exposure, including watching television and playing computer games, results in incidental exposure and acquisition of vocabulary. The interactive nature of social media-mediated CMC surely provides even greater exposure and opportunities for incidental vocabulary acquisition. However, the phenomenon of CMC users creating acronyms and initialisms may create difficulties for L2 English learners to acquire them incidentally. In many cases, these online acronyms represent basic phrases that the students already know (Ertekin & Pryor, 2022), but the unfamiliar form turns them into a difficult to decipher code (AbuSa’aleek, 2013). A better understanding of CMC by L2 English learners results in greater understanding and increased motivation to engage in English CMC (Ferrando-Rocher, 2023). Explicit instruction of online acronyms may be more effective at increasing learners’ familiarity with and knowledge than incidental exposures, which should in turn improve learners’ digital literacy skills.

Studies have suggested that receptive vocabulary size can provide a reasonable indication of a learner’s reading comprehension level (Hwang, Mancilla-Martinez, McClain, Oh, & Flores, 2020; McLean, Stewart, & Batty, 2020). In order to test learners’ receptive vocabulary, Nation and Beglar (2007) developed the Vocabulary Size Test (VST). This test

presents learners with a sampling of 10 words from each frequency band of 1,000 words, or 1% of each band. The test presents each word with a short sample sentence and four multiple-choice options of meaning. The results of this test, multiplied by 100, give an approximate indication of a learner's receptive written vocabulary size. Another common test of vocabulary knowledge is the Vocabulary Knowledge Scale (VKS) developed by Wesche and Paribakht (1996). This test presents vocabulary to learners and asks them to identify if it is unknown, familiar but the meaning is unknown, known, or usable productively. This instrument provides more granular data than simple semantic knowledge of words as with the VST, by allowing learners to indicate some partial receptive knowledge and even productive knowledge of the vocabulary. Both of these instruments have been widely used for many studies over the years.

Boroughani, Xodabande, and Karimpour (2023) used the VKS to measure learners' familiarity with different sets of academic vocabulary, finding that the experimental group which used digital flashcards outperformed the control group which used traditional methods, with a partial eta squared effect size = 0.97, a large effect. Tahir, Albakri, Adnan, and Karim (2020) compared explicit and implicit academic vocabulary learning over a period of 22 weeks. They found that both groups achieved statistically significant vocabulary gains, but as they did not provide an effect size for the difference between the two groups, the author of the current study calculated it from their reported means and standard deviations, Cohen's $d = 1.97$, a large effect. These studies suggest that explicit instruction of academic English vocabulary can be very effective for learners. The author was unable to locate any recent studies of explicit instruction of online English neologisms or online acronyms. All surveyed research focused on cataloging them or else examining and analyzing use patterns. This is a research area rich for investigation.

2.3. Research Questions

The researcher hypothesizes, based on the previous research discussed above, that learners with greater receptive vocabulary will be more familiar with English online acronyms. Learners who spend more time interacting online in general, and in English in particular, should be more familiar with these acronyms, regardless of receptive vocabulary size. Finally, considering that most L2 English learners in Korea are not likely to be familiar with many of these online acronyms, it is hypothesized that explicit instruction of these terms will benefit them more than relying on continued incidental exposures over time. That leads the researcher to the following three research questions:

- 1) How well do English learners recognize and understand online acronyms?
- 2) Does receptive vocabulary size, amount of online engagement, and/or percentage of online engagement in English predict familiarity with online acronyms?

- 3) Does explicit instruction of the meaning of online acronyms result in increased familiarity with these terms?

3. METHODOLOGY

3.1. Selection of the Target Vocabulary

The target expressions used in this study were selected by surveying the online acronyms and initialisms represented in other studies, primarily Ertekin and Pryor (2022) due to it having a large list of online acronyms and being recent research. Other expressions were taken from Tagliamonte (2015), Moehkardi (2016), and Dykes (2021). The researcher first identified online acronyms that were both familiar to the researcher and were abbreviations of phrases that should be known by the participants in their expanded form. In order to avoid bias from the researcher, some expressions that were unknown to the researcher were added to the list. Some expressions that abbreviated phrases that would likely not be known by the participants were also added. A colleague suggested some alternate expressions taken from an online article which claims to list the most popular online acronyms from the year 2022 (Feil, 2023). This resulted in a list of fifty online acronyms. This list was shown to two colleagues, who suggested eliminating some of the expressions as too obvious or too obscure. Not every obvious or obscure online acronym was eliminated, but the final list was based on that consultation. This left a list of thirty online acronyms. The acronyms, their expansions, and their source in the literature are listed in Appendix A.

3.2. Participants

The researcher initially recruited 96 native Korean-speaking undergraduate students majoring in English at a public university in Korea to take part in this study. All of the students took part in the study voluntarily, and they were not compensated for their participation. Review Board authorization was not required for this type of study, but all ethical research standards of the host university were followed. Because some students were not able to complete the post-test, the pool was reduced to 90 for the final analysis. All 90 participants were available to take the delayed post-test ten weeks after the initial post-test. There were 72 female and 18 male participants, so gender was not used as a variable in this study. The grade years of the participants were as follows: 35 first-year students, 13 second-year students, 31 third-year students, and 11 fourth-year students (mean = 2.20, *SD* = 1.09), and the average age was 21.4 years old.

A survey collected demographic data and also social media use habits, and the Vocabulary

Size Test (VST) was used to get an estimate of each participant's receptive vocabulary size. The first online habit surveyed was estimated hours of social media use per day (with choices of: up to 1, 2, 3, 4, 5+ hours). The participants spend on average three to four hours a day on social media (mean 3.82 hours). The second habit surveyed estimated the percentage of social media time spent in English (with choices of up to 10%, 25%, 50%, 75%, or 90+%). The average participant spends about one third of their social media time in English (mean 33.28%). Results from the survey and VST are given in Table 1.

TABLE 1
Participant Receptive Vocabulary and Social Media Habits

Statistic (<i>N</i> = 90)	Mean	<i>SD</i>
VST score	68.72	14.50
Hours/Day on social media	3.82	1.16
Percent of social media use in English	33.28	23.33

3.3. Survey Instruments

To collect the data for this study, the Vocabulary Size Test (VST) by Nation and Beglar (2007) was selected to give an estimate of the participants' receptive English vocabulary size. The Vocabulary Knowledge Scale (VKS) by Wesche and Paribakht (1996) was selected as a vehicle to investigate the participants' familiarity and knowledge of the online acronyms. Much previous research has utilized these two instruments, so they were selected for both their ease of use and their familiarity. To collect demographic information about the participants and also to learn about their social media habits, a short survey was crafted, combining some questions from Tso (2019) and Caliboso (2021). Aside from information about the participants' age, gender, and grade year, the survey asked the participants to estimate how many hours per day they spend engaged with social media of any type and to estimate what percentage of their social media time was spent interacting in English or with English content. The demographic data, presented in Section 3.2. above, provides the results of this survey.

3.4. Data Collection

To collect the data, the researcher first explained the purpose and method of the study to the assembled volunteers (*N* = 96) and obtained their consent to continue. The VST was administered to the participants first, and this took around 25 minutes to complete. Next, the demographic survey was given, which took around five minutes to complete. Finally, the VKS was explained and administered, which took around 15 minutes for all participants to

complete. After all participants had completed the VKS, the instruments were collected and collated using students' university ID numbers.

Once the data had been collected, the participants were provided with a worksheet containing the online acronyms from the VKS and their expansions. The researcher went through the list and explained the meaning of each online acronym and its use to the participants. This was done by first trying to elicit the meaning from the participants. If none knew of the phrase, it was explained to them. Many of the acronym expansions were self-evident in meaning, as they were common phrases understood by the learners. Those that were not well-known were explained by the researcher, both as to the meaning of the expansion and the usage of the acronym in online discourse. The participants were allowed to keep the worksheet explaining the online acronyms but were not instructed specifically to study or learn the phrases. This learning session took around 15 minutes, meaning the entire session of data collection and explicit instruction took just over one hour to complete. In the two days after the initial data collection and treatment, semi-structured interviews were conducted with four participants in order to collect feedback on the process, gain insight into learner social media behaviors, and query learners' reactions to the online acronyms and their extensions. These interviews provided the researcher with more context related to the learners' social media use and how they feel about English-medium CMC. The prepared questions for these interviews are listed in Appendix B. Follow-up questions varied by each participant's answers to the prepared questions, and are not listed in the appendix.

One week later, 90 of the participants assembled to take the initial post-test. The participants had been asked to come back one week later but had not been told that they would be once again tested on the target vocabulary. The immediate post-test was another VKS, only this time there were six additional online acronyms added to the list, for a total of thirty-six items. This was done to help control for participants marking each item as recognized without consideration and this was explained to the participants. The post-test took around 15 minutes to complete, similar to the pre-test VKS. Student ID numbers were collected to match entries to the initial data collection. Once all data was collected, the information was entered into a spreadsheet and anonymized by erasing all student ID numbers.

Ten weeks after the immediate post-test, the participants were invited back to take the VKS one last time as a delayed post-test. The participants had not been told that this test would occur, in order to help control against cramming, a common practice for test preparation in Korea. All 90 of the participants returned for this final round of data gathering. The same VKS form used for the immediate post-test was once again issued. The researcher again explained how to complete the instrument before the participants began. The session took only around 10 minutes for all students to complete.

3.5. Analysis of the Data

The VST was scored by giving one point for a correct answer and zero points for an incorrect answer or skipped question. This resulted in a range of scores from a minimum of 30 to a maximum of 103, with a regular distribution of scores.

The VKS instrument was scored in the standard way, following Boroughani et al. (2023). Respondents can rate their knowledge of each word as “I don’t know this word” (0 points), as “I’ve seen this word but don’t know what it means” (1 point), as “I think I know this word. It means ____” (3 points), as “I know this word. It means ____” (4 points), and as “I can use this word in a sentence. _____” (5 points). Responses to the items on the VKS in English and Korean were accepted.

For this study, options three and four were combined on the survey form, as they ask the same question with the only difference being the level of confidence of the respondent in their answer. If a correct meaning was supplied for that test item, it was counted as 4 points, and if an incorrect meaning was supplied it was counted as 3 points. Nation and Webb (2011) point out some of the drawbacks of scoring the VKS in that it is incomplete in its jump from awareness to semantic knowledge to productive knowledge. At times, other researchers have modified the scale for their research (e.g., Duan, 2018). Wolter (2001) points out that the numerical values given for the VKS are categorical, not scalar, and thus have a descriptive value of increasing knowledge, but that the differences between each step are not equivalent. Some respondents in a previous study carried out by the researcher of the current study had noted confusion about the third and fourth items of the standard VKS, so a decision was made to slightly modify the test document as described.

The scores for all thirty items on the VKS pre-test were totaled from all responses. For the VKS immediate post-test and the delayed post-test, the responses for the six distractor questions were removed and then the remaining thirty item scores were totaled. A multiple regression analysis was used to investigate whether the receptive vocabulary levels (as measured by VST scores), time spent on social media (self-reported), and English-language social media engagement (self-reported) served as predictors of online acronym familiarity. The total VKS scores for each participant on the pre-test were compared to both the immediate post-test and delayed post-test using paired samples *t*-tests to determine whether or not the explicit instruction of the acronyms resulted in increased familiarity. The data was analyzed using SPSS v.26 software.

4. RESULTS

The first research question asked how well the participants, university students in South

Korea, recognized the online acronyms presented to them. The descriptive data of the VKS pre-test, immediate post-test, and delayed post-test, each of which had a maximum possible score of 150, are presented in Table 2. In order to see which particular online acronyms the participants were aware of, the means of the pre-test VKS scores for each item were calculated (with a maximum possible score of 5). Among the ninety participants, the five most recognized online acronyms were LOL (mean 3.53, SD 1.55), WTF (mean 3.49, SD 1.69), BTW (mean 1.98, SD 2.14), LMAO (mean 1.12, SD 1.60), and JK (mean 0.98, SD 1.64). The least recognized online acronym was YMMV (mean 0.03, SD 0.18). The results show that the participants were generally unfamiliar with most online acronyms, although a handful were relatively well-known. For the most well-known online acronym, LOL, many participants knew it as meaning “laugh out loud” or at least laughter or amusement, but a small number recognized it as the abbreviation for the online game *League of Legends*. This was counted as a partially correct answer (worth 3 points) in the VKS scoring.

TABLE 2
VKS Mean Scores Descriptive Data

Group (<i>N</i> = 90)	Mean	<i>SD</i>	Minimum	Maximum
Pre-test	17.40	11.74	1	76
Immediate post-test	36.00	15.30	0	82
Delayed post-test	38.38	17.74	0	92

The semi-structured interviews give some context to these findings. One female first-year student reported that she often uses a variety of types of social media, and often communicates in English because people use easier vocabulary online. She felt that knowing the online acronyms would help her to communicate better in the future (Transcript 1). A female second-year student said that she had seen many of the online acronyms but did not know most of their meanings. She said that she could find interest in English when interacting online and that she feels that using social media often helps her to improve her reading ability and vocabulary (Transcript 2). A male fourth-year student who is often online and mostly using messaging apps said that while he does not use English online often, when he does, he finds the use of simple and familiar words makes it easier to communicate (Transcript 3). A female fourth-year student had the opposite experience, saying that while she spends a lot of time on social media apps, she tries to avoid using English online because native speakers use slang or other unfamiliar vocabulary, which makes communication hard. She said that learning about these online acronyms was interesting, and has made her curious about learning more online English expressions (Transcript 4).

The second research question asked whether English receptive vocabulary, the amount of time spent on social media, or amount of English language social media content engaged

with could predict familiarity with online acronyms. Responses from the semi-structured interviews suggested that despite differences in these variables, most learners tend to feel that the presence of online slang or neologisms will hinder their comprehension, regardless of their social media use habits. Online engagement was measured using self-reported average hours per day spent using social media, with options for 1 or fewer hours up to 5 or more hours per day. Each response was measured 1 through 5. The percentage of online engagement in English was measured by self-reported measures, with options of up to 10% through 90% or more. Responses were measured as 10, 25, 50, 75, or 90. The descriptive data of VKS means by social media use and VKS means by percent of English social media use are presented in Table 3.

TABLE 3

VKS Mean Scores for Daily Social Media Use and Percent of English Social Media Use per Day

Data Point	<i>N</i>	Mean	<i>SD</i>	Minimum	Maximum
Hours of social media use per day					
Up to 1 hour	4	15.00	13.69	4	35
1 to 2 hours	8	20.67	11.31	10	41
2 to 3 hours	18	17.63	18.50	1	76
3 to 4 hours	27	17.22	9.39	3	43
5 or more hours	32	16.94	8.89	5	49
Percent of English social media use					
10%	26	12.81	6.68	3	28
25%	33	15.85	6.98	5	35
50%	19	24.32	18.25	1	76
75%	8	20.00	14.11	4	43
90%	4	22.00	11.74	9	40

TABLE 4

Correlation of Vocabulary Size, Social Media Use, and English Social Media Use to VKS Scores

Variables	<i>N</i>	Correlation Coefficient	<i>p</i> (alpha .05)
VST score	90	.241	.022
Social media use (hours)	90	-.037	.730
English social media use (percentage)	90	.300	.004

Correlation analysis between VST scores, social media use, percent of social media English engagement, and VKS scores were calculated. The Pearson correlation data is presented in Table 4. The participants' VST scores had a statistically significant correlation to VKS scores at the $p = .05$ level. Social media use was not significantly correlated to VKS scores. The percentage of social media engagement in English had a statistically significant correlation to VKS scores at the $p = .01$ level. Based on these correlations, a regression analysis was conducted to investigate these connections. Scatterplots showed that all

variables were linear with no outliers, so the researcher continued with the multiple regression analysis. The multiple regression was made with VST scores, social media use, and percent of English engagement as predictors and VKS score as the dependent variable. The results of the multiple regression are shown in Table 5.

TABLE 5
Multiple Regression Analysis Results

Independent Variable	Coefficient	SE	Beta Coefficient	<i>t</i>	<i>p</i>
VST score	.232	.087	.251	2.66	.009
Social media use	-.319	1.085	-.028	-.294	.769
English social media engagement	.187	.052	.338	3.60	.001
Constant	-2.808				
R^2	= .198				
<i>F</i> -ratio	= 7.58	$p < .001$			
SEE	= 12.18				
<i>n</i>	= 90				

The model shows that both receptive vocabulary size, as measured by VST scores, and use of English online, as measured by self-reported percentage of English social media engagement, were statistically significant predictors of familiarity with online acronyms, as measured by VKS pre-test scores. The amount of time spent on social media per day, as measured by self-reported estimated daily social media engagement, did not predict familiarity with English online acronyms. Analysis of the beta coefficients shows that English language social media engagement is a stronger predictor than vocabulary size. However, the model is not particularly robust and explains only a small amount of the total variance.

The third research question asked if there was any effect of explicit instruction of the expansions and meanings of the online acronyms on receptive vocabulary knowledge. Responses to the semi-structured interviews conducted after the treatment suggested that there was a high level of interest in the online acronyms that were presented, and that learners felt that these terms could improve their online communication skills. In order to test the hypothesis, a second VKS test was administered one week after the first, and the results of the pre-test ($M = 17.40$, $SD = 11.74$) and immediate post-test ($M = 36.00$, $SD = 15.30$) were compared by paired samples *t*-test. There was a correlation of .583, $p < .001$ between the variables, and $t(89) = -13.843$, $p < .000$. With an effect size of Cohen's $d = 1.36$, this suggests that there was a large effect upon receptive vocabulary knowledge of online acronyms from the explicit instruction provided.

In order to test the robustness of the vocabulary familiarity gains for the online acronyms, a delayed post-test was delivered ten weeks after the immediate post-test. The results of the

pre-test ($M = 17.40$, $SD = 11.74$) were also compared to the delayed post-test ($M = 38.38$, $SD = 17.74$) by paired samples t -test. The results showed a correlation of .428, $p < .001$ between the variables, and $t(89) = -12.015$, $p = .000$. The effect size is Cohen's $d = 1.39$, a similarly large effect. There was no statistically significant difference between the immediate and delayed post-test VKS results. This suggests that the gains in vocabulary familiarity related to the explicit instruction of the online acronyms were robust.

5. DISCUSSION

The results presented in this study suggest that Korean university students are not well acquainted with online acronyms, even if they spend a great deal of time online interacting in English. This is in contrast to the findings of Kuppens (2010), which suggested that media consumption, especially interactive consumption such as gaming, contributed to incidental vocabulary gains. A few common online acronyms were familiar to the participants of the current study, but most were not familiar with the majority of acronyms. However, when the expansions of each acronym were explained, most of the expanded phrases were familiar to them. Ignorance of the acronym versions of these common fixed phrases and discourse markers may leave L2 English speakers unable to fully understand online discourse when they would have no problems if the expressions were typed out fully. The interviews conducted after the initial treatment seem to support the findings of Ferrando-Rocher (2023) in which Spanish learners report that knowing online acronyms increases engagement and makes online communication easier. All four interviewees in the current study showed interest in learning online acronyms after the treatment, with interviewee 4, in particular, seeming to be very highly motivated.

This study found that while general time spent on social media did not predict familiarity with English online acronyms, receptive vocabulary size and engagement with social media in English may. Several studies into how learner behaviors intersect with online English have suggested that greater engagement with online English leads to improved learner motivation and affect for Spanish and Hong Kong students (Ferrando-Rocher, 2023; Tso, 2019), and that more time online leads to improved outcomes for Norwegian learners (Brevik, 2019). Social media use in English can also aid in improving writing proficiency among Philippine learners (Caliboso, 2021). The data in the current study seems to support these claims, although not strongly. This study found that receptive vocabulary size and amount of social media engagement done in English may help predict familiarity with online acronyms, but the model presented suggested that there are other unexplored factors that also contribute to this familiarity. This is an area that could use more study and attention. The sample of interviews taken in the current study also suggests that the participants believe English social

media use is helpful for improving their English proficiency, and that greater knowledge of online acronyms may assist them in communication, which mirrors the findings of Tso (2019) and Ferrando-Rocher (2023). The data also supports the findings of Brevik (2019), in which English-medium social media engagement led to improved receptive language ability.

The current study found that even a minimal explicit vocabulary instruction session about English online acronyms could lead to significant gains in vocabulary knowledge, and that these results are robust. Similar studies of academic vocabulary instruction such as Tahir et al. (2020) and Boroughani et al. (2023), with Malaysian and Iranian students respectively, suggest that vocabulary gains over a long treatment period of multiple weeks can result in significant gains of both incidental and explicitly taught vocabulary. The current study found a large effect of vocabulary gain from just one session and that the gains were robust even without further instruction. The reason for this is most likely that the expansions of each online acronym were phrases that were for the most part already familiar to the participants. The interview results of the current study revealed a common theme: the belief that online English tends to be easier to understand than traditional printed English, but that online acronyms, for the most part, remained a mystery. If this is the case, then it would be prudent for educators to begin familiarizing learners with these online acronyms. Doing so will not require much effort, and will result in much improved English medium digital literacy for the learners. The robustness of the results of the current study implies that awareness of the online acronyms and their expansions may be enough to generate intrinsic motivation to acquire this type of vocabulary, but further studies are needed to confirm this suspicion.

6. CONCLUSION

This paper presents findings of a familiarity survey of English online acronyms, coupled with a brief explicit treatment and post-tests to measure gains in vocabulary familiarity with these expressions. Additionally, several potential factors that may predict familiarity with these online acronyms were explored. The results suggest that while most English learners in Korea are not well acquainted with English online acronyms, with minimal time spent explaining the meanings of these online acronyms, significant gains can be made. The findings also suggest that receptive vocabulary size and the amount of engagement with social media conducted in English can predict familiarity to some extent. There are several limitations to these findings. First of all, this was an exploratory inquiry, not a true experiment, as there was no control group used to compare findings. A follow up study with randomized treatment and control groups is in order. Another limitation is that the predictive model created with regression analysis has a large amount of unexplained variance. Studies that control for more factors are in order to identify additional factors that predict familiarity

with online acronyms. Further studies of online acronym familiarity comparing both explicit and implicit instruction techniques are also in order.

The results do have several strong implications for English language education. The short one-time treatment resulted in noticeable gains in vocabulary knowledge, whether simply familiarity, receptive semantic knowledge, or even productive knowledge. This suggests that teachers who wish to improve their learners' digital literacy should spend some time familiarizing their learners with English online acronyms, and encourage more time spent engaging in CMC via English. Many of the acronyms represent basic formulaic expressions that many learners will already be acquainted with, so uptake of the acronym forms should be relatively easy. This will result in improved ability for learners both to understand CMC in English and to use it quickly and effectively in their own communication. Learners seem keen to improve their English digital literacy skills, and teaching online acronyms may be a simple and effective way to help learners achieve this goal.

Applicable level: Tertiary

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APPENDIX A

Online Acronyms Used in this Study

Acronym	Expansion	Source
AFAIK	As far as I know	Ertekin & Pryor (2022)
AFK	Away from keyboard	Ertekin & Pryor (2022)
BRB	Be right back	Tagliamonte (2015)
BTW	By the way	Ertekin & Pryor (2022)
ELI5	Explain it like I'm five	Dykes (2021)
F2F	Face to face	Moehkardi (2016)
FWIW	For what it's worth	Ertekin & Pryor (2022)
FTW	For the win	Ertekin & Pryor (2022)
ICYMI	In case you missed it	Ertekin & Pryor (2022)
IIRC	If I recall correctly	Ertekin & Pryor (2022)
IMNSHO	In my not so humble opinion	Ertekin & Pryor (2022)
IOW	In other words	Ertekin & Pryor (2022)
JK	Just kidding/joke	Feil (2023)

KISS	Keep it simple, stupid	Moehkardi (2016)
LMAO	Laugh my ass off	Tagliamonte (2015)
LOL	Laugh out loud	Ertekin & Pryor (2022)
NBD	No big deal	Feil (2023)
NOYB	None of your business	Ertekin & Pryor (2022)
NP	No problem	Tagliamonte (2015)
OP	Original post(er)/overpowered*	Ertekin & Pryor (2022)
OTOH	On the other hand	Ertekin & Pryor (2022)
PAW	Parents are watching	Feil (2023)
ROFL	Rolling on the floor laughing	Ertekin & Pryor (2022)
SMH	Shake my head	Feil (2023)
TIA	Thanks in advance	Ertekin & Pryor (2022)
TL;DR	Too long; didn't read	Dykes (2021)
TTFN	Ta ta for now	Moehkardi (2016)
TTYL	Talk to you later	Ertekin & Pryor (2022)
WTF	What the fuck	Ertekin & Pryor (2022)
YMMV	Your mileage may vary	Ertekin & Pryor (2022)

* Ertekin and Prior (2022) list the expansion of OP as “Original Poster, Original Post” (p. 85), but many participants listed the gaming acronym “overpowered” which was accepted as also a correct answer.

APPENDIX B

Semi-Structured Interview Questions

1. Which social media sites or apps do you use often?
2. Why do you use social media?
3. How easy is it to understand English on social media compared to classroom English?
4. What makes online English easy or difficult for you?
5. How does online interaction in English help you improve your English ability?
6. How do you feel about the online acronyms we studied?