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Exploratory Study on the Relationships between Out-of-Class Learning and Korean EFL Students' Listening, Reading and Grammar Knowledge

Eun-Jou Oh
(Korean Bible University)

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The purpose of this study was to determine the condition of Out-of-Class Learning (OCL) that Korean ELLs engage in and to explore relationships between OCL learning and L2 Listening Comprehension (LC), Reading Comprehension (RC) and Grammar Knowledge (GK). OCL activities were categorized into five types: Authentic Interaction (AI), Meaning-Focused Listening (MFL), Meaning-Focused Reading (MFR), Paid Learning Activities (PLA), and Self-Study (SS). A survey on OCL was administered to one hundred-ten freshmen in college, and the L2 variables were measured using a mock TOEIC exam. The results of statistical analyses showed that PLA and SS were reported to be the most frequently used types, followed by MFL, MFR, and AI; the differences in frequency were statistically significant. The model of the five OCL types was shown to explain significant variances in LC, RC, and GK. The model of three linguistic variables also had significant explanatory power in explaining variances in MFL, MFR, PLA, and SS, but not in AI. These findings suggest a degree of participation in all the OCL types except for AI has reciprocal relationships with ELLs' proficiency in the tested L2 variables. The implications of the findings and ways to promote this presumed virtuous circle are discussed.

[out-of-class learning/L2 listening and reading comprehension/grammar knowledge/ autonomous language learning]

I. INTRODUCTION

Research on second language learning has focused mostly on learning within classrooms that involves the design of syllabuses, methods and materials, as well as teacher training (Nunan & Richards, 2015). This is not surprising in that classrooms are where language

learning experiences are systematically arranged and intensively take place, and variables at work during SLA are to some degree controlled and monitored for education and research. However, learners' experiences within language classrooms alone do not depict the process of successful language learning adequately. For example, Pickard (1995, 1996) and Lamb (2002) reported that learners of advanced levels of L2 proficiency attributed their success to out-of-class learning (hereafter, OCL) rather than formal instruction. Henry (2014) also found that more than half of the Swedish students believed that their English language learning took place outside of school.

Traditionally, this aspect of L2 learning, the effect of learning activities in non-instructional settings, was addressed under the *Good Language Learners* framework (Naiman, Frohlich, Stern, & Todesco, 1978). This type of language learners were characterized with effective strategy use and strong motivation for L2 learning without distinction of being inside or outside of the classrooms. Later, the notion of good language learners expanded from a cognitive perspective to a sociocultural perspective in which specific contextual characteristics afforded to English language learners (hereafter, ELLs) are taken into account in addition to learner characteristics (Norton & Toohey, 2001). Good language learners are now viewed as not only effective information processers but also active utilizers of resources around them. With an increased access to language learning resources today, thanks to the advancement of ICT, ELLs who actively engage in OCL activities are more likely to turn out to be good language learners than ever before. This is the backdrop to the emergence of OCL as a distinct topic for investigation. OCL as an arena for successful language learning experiences is noteworthy for investigation for its own sake (Benson & Reinders, 2011; Nunan & Richards, 2015).

The role of OCL may become even more prominent in an EFL context like Korea because such a context affords ELLs extremely limited chances for authentic interaction that is critical to ELLs' sustaining motivation and improving productive skills. How Korean ELLs cope with this structural constraint and become successful in language learning can be explored by investigating their OCL activities. Lee, Shin, Hwang, Kim, Lee, and Song (2015) indeed reported in their case study that one of the good Korean adult language learners' characteristics was their autonomy to get involved in OCL activities such as watching American dramas and soccer games and reading English articles about the topics of their interests. It is thus of value to figure out whether or not Korean ELLs overall avail themselves of OCL opportunities and how their OCL experiences are actually related to different aspects of L2 proficiency. In addition, L2 proficiency can serve as a potential moderator in assessing the role of OCL because a kind and a degree of OCL may well vary accordingly. As an initial investigation on the topic due to the lack of studies on OCL among Korean ELLs, the present study aims to explore the relationships between OCL that Korean EFL learners of low-to-intermediate proficiency engage in and their three

L2 related variables, LC, RC, and GK, by answering the following research questions:

1) Which types of out-of-class learning are used more significantly by Korean English language learners of low-to-intermediate proficiency?
2) Which types of out-of-class learning are significantly related to L2 listening, L2 reading, and L2 grammar knowledge respectively?
3) Which linguistic variables are significantly related to authentic interaction (AI), meaning-focused listening (MFL), meaning-focused reading (MFR), paid learning activities (PLA), and self-study (SS) respectively?

II. LITERATURE REVIEW

There have been several topics investigated within the framework of OCL over the past two decades. It is generally assumed that types of activities that ELLs use for OCL are likely to differ depending on available resources around them. This contextual effect was investigated in earlier studies (Freeman, 1999; Shen, Tseng, Kuo, Su & Chen, 2005; Suh, Asanasomsithi, Short, & Majid, 1999). In Freeman's (1999) study that examined OCL activities of two groups of language learners, ELLs (ESL) and French language learners (French as a foreign language) in the UK, the top three activities that each group reported to have used frequently differed. ELLs were found to use chatting to non-native speakers of English, listening to the radio, and classwork outside of their classrooms. On the other hand, French language learners relied more on formal language learning such as classwork, homework and reading textbooks. This finding confirmed a general intuition about the contextual effect of language learning on OCL activities.

The benefit of being in an ESL context, however, did not ensure an actual increase of authentic interaction. For example, Hong Kong is considered an ESL context for English language learning because English as well as Cantonese is used as an official language in the region; the former as an official language used in government, education and business, and the latter as a dominant language in social, political, and cultural realms (Lai, 2015). It can be presumed that talking in English may well be one of the most frequently used OCL types among ELLs in Hong Kong. However, this was not the case. Student teachers and practicing teachers of English in Hong Kong reported that the most frequently used type of OCL did not involve face-to-face interaction that requires speaking such as writing emails and reading academic books (Hyland, 2004). In addition, OCL types that involved receptive skills such as watching videos and TV programs, reading newspapers, and listening to songs were found to be common among such ELLs. Hyland attributed the lack of authentic speaking interaction to negative feelings about the use of English in public due to political factors in Hong Kong.

The study on the OCL activities conducted in the similar language learning context to the Korean context was Lia, Zhu, and Gong's (2015), which investigated OCL in an EFL context. They explored characteristics of OCL activities used by eighty-two EFL middle school students in China. The most frequently used OCL types were reported to be meaning-focused activities (e.g., watching movies and listening to music) and PLA (e.g., taking English tutorial classes). As expected in an EFL setting, AI was not reported as one of the common OCL types. In a finer analysis, they identified factors that induced active engagement in OCL. Students with more diverse OCL learning and more meaning-focused activities were found to have a significantly higher level of confidence and enjoyment in learning and to achieve higher grades. On the other hand, those who engaged most in form-focused activities tended to remain in these particular types of activities for OCL, not seeking out diversified meaning-focused activities, and this type of participants tended to have lower levels of confidence and enjoyment as well as lower grades.

The importance of meaning-focused activities was pronounced in an ESL as well as EFL context. Seventy-eight proficient ELLs in Hong Kong reported to have engaged in meaning-focused input and output activities (e.g., surfing the internet and composing emails, instant messages, and messages on blogs, internet forums, or social networking websites) 'often' or 'always' in Chan's study (2011). These activities are ones that have become newly available thanks to the technological advancement. Technology appears to have opened various routes for different types of meaning-focused OCL activities. For example, Sundqvist (2011) found that the amount of time spent on OCL was significantly correlated with the oral proficiency and vocabulary size of Swedish adolescents. Specific OCL types that served as better predictors for the outcome variables were analyzed to be playing digital games, surfing the internet, reading books, and reading newspapers/ magazines online, all of which were characterized with technology use.

Whether or not meaning-focused OCL activities are also related to better learning achievements for Korean EFL students is not known yet because studies on OCL in Korea had a different focus for investigation. OCL activities examined in Korea were aligned with in-class learning in a form of cooperative (Kim, 2013) or independent learning (Song, 2008; Song & Park, 2004) such as a small study group, lab activities and online practice coupled with in-class learning. Song and Park reported students' satisfaction on listening lab activities offered as part of College English. Song also evaluated students' satisfaction on the online conversation practice program implemented as OCL while having authentic interaction with native speakers in class.

There is one study that informs us of how Korean EFL students engage in OCL independently from in-class activities. Park (2008) surveyed kinds of listening activities and strategies that Korean college students of beginning to below-intermediate proficiency used for their OCL. According to the survey, 61 percent of the one hundred-twenty

participants made little effort to engage in OCL to develop their listening skills, even though they perceived listening as the second most important skill in terms of language skills to develop. The most frequently used type of OCL activities was found to be form-focused activities such as listening to TOEIC or other exam materials (45.8%) and listening to downloaded materials (23.3%). The participation in meaning-focused listening activities was shown to be low: watching movies (13.3%), listening to radio news or watching the news (8.3%), listening to music (7.5%), and talking in English (1.7%). The relationship between these OCL activities and L2 achievements was not explored in the study.

The field of OCL is likely to draw researchers' and educators' attention more and more because of its seemingly potential function to promote learner autonomy, one of the key competences that the education of 21st century aspires to nurture among learners. In this sense, the finding on OCL from the previous research abroad is of great value, that the use of meaning-focused activities is a major factor for effective L2 achievements, because it sets a guideline for prioritizing OCL types to be focused on by educators as well as ELLs themselves. Since this research area in Korea is at the inception stage, the present study aims to explore the validity of the findings from the previous research abroad in the Korean context by adopting the similar methodological approach to the investigation of OCL and suggest possible directions for further research on OCL as a tool conducive to learner autonomy.

III. METHOD

1. Participants

One hundred-ten freshmen from one university in Seoul participated in this study. According to a background survey, there were thirty-two male students and seventy-eight female students, 88% (97 participants) of whom were born between 1996 and 1998, and 12% (13 participants) of whom were born before 1996. Ninety percent of the participants reported that they had taken classes with native English speaking teachers: 2.7% before formal schooling, 39% in elementary school, 37.2% in middle school, 10.9% in high school, and 10% reported that they had not received formal instruction from a native English speaking teacher at all. The major context where they participated in class with English speaking teachers was reported as follows: schools (68.1%), private institutes (19%), tutoring, (1.8%), and abroad (.8%); they were asked to choose the major one. Levels of College Scholastic Aptitude Test (hereafter, CSAT) of the participants were as follows: 1 (1.8%), 2 (1.8%), 3 (11.8%), 4 (22.7%), 5 (24.5%), 6 (7.3%), 7 (7.3%), 8 (3.6%), and not applicable (19.1%). Eighty-eight percent of the students (97 participants) reported

that they had not taken TOEIC before. The participants were from five different university major courses: Nursing (21%), Social Welfare (28%), Theology (27%), Childhood Care and Education (14%), and Computer Software Technology (10%). The students listed above had completed both the out-of-class learning survey and a mock TOEIC test as a placement test; the Cronbach's alpha reliability of the mock TOEIC was .926 for LC and .867 for RC. The survey was made available to students online five days before the administration of an English test; one-hundred fifty two students out of 262 who took the test did not complete the survey. Their average TOEIC score of the placement test was 390.25 with 146.59 of standard deviations.

2. Data Collection

1) Out-of-Class Learning Survey

The OCL learning survey was developed based on the work of Hyland (2004) and Shen et al. (2005). OCL activities were categorized into five subcomponents, which included AI, MFL, MFR, PLA, and SS. The AI (three items) involved the use of English in an authentic interaction such as writing to pen pals, running social networking sites of their own, and participating in others' SNS by replying in English. MFL (five items) enquired whether or not there were any listening activities for enjoyment or information gathering in the past. MFR (six items) involved reading for information gathering in various contexts. PLA (four items) enquired if the participants had been involved in any kind of paid learning activities. In order to make sure what the items between meaning-focused activities and PLA ask do not overlap, a note was added for the items of meaning-focused activities that they were the activities conducted not as part of PLA. SS (six items) addressed learning activities for self-study. This component included all English skills such as listening, reading, speaking, writing, grammar, and vocabulary. Levels of participation in each item were measured on a 4-point Likert scale, with 1 indicating 'never', and 4, 'continuously.' The specific items for each component are shown in Table 1 with descriptive statistics. It is important to take into consideration that the participants were asked to rate a degree of involvement in each OCL subcomponent in their high school years because they were all freshmen in college, and the instrument was implemented at the beginning of the first semester of their freshmen year. The Cronbach's alpha reliability of each subcomponent was .704 (AI), .764 (MFL), .814 (MFR), .819 (PLA), and .895 (SS).

2) L2 Linguistic Variables

This study tested three L2 linguistic variables, listening comprehension (hereafter, LC),

reading comprehension (hereafter, RC), and grammar knowledge (hereafter, GK). All of these variables were part of a mock TOEIC test administered as a placement test at the beginning of the semester. LC consisted of four parts, each of which involved photographs (10 questions), question-responses (30 questions), conversations (30 questions), and short talks (30 questions). RC was tested using fifty-four questions of the RC section in the placement test. Six questions from part 6 which involved text completion were grouped along with forty-eight questions from part 7 as reading comprehension because they required the participants to use their comprehension skills rather than grammar knowledge to answer the questions. An example of such a question is *Residents are invited to pay their _____: (a) money, (b) earning, (c) glory, and (d) respects.* This example was taken from a reading passage of 105 words in the test, and it was deemed impossible to choose a correct answer without understanding the text properly. Thus the questions on RC totaled fifty-four. Among the remaining questions in the part5 and the part6 were thirteen vocabulary-related questions and thirty-three grammar-related questions; the thirteen vocabulary questions were excluded from the analysis. The Cronbach's reliability was .926 for LC, .705 for RC and .787 for GK.

3) Data Collection Procedure

The out-of-class learning survey was prepared using formsite.com along with a section for background information, and the link of the survey was sent out via text message to freshmen in 2016 five days before the placement test was administered. They were asked to complete the survey before the placement test for research purposes. The placement test was administered to all freshmen on the first day of the first semester of 2016. The listening section was administered for 45 minutes, followed by the reading section for 75 minutes.

4) Data Analysis

An analysis on the differences among the five kinds of out-of-class learning was conducted using Friedman's ANOVA. Degrees of participation in OCL were measured in a four-point Likert scale, which is considered ordinal and served as a dependent variable for the first research question. Since the one-way repeated measures ANOVA requires dependent variables to be continuous, the assumption for its use was not satisfied, so its nonparametric alternative, Friedman's ANOVA was used instead (Lomax, 2001). In order to locate specific group differences, post-hoc tests were conducted. The Wilcoxon sign test, which is equivalent to the paired-samples *t* test, was run for 10 combinations of the five groups with Bonferroni correction, $p = .005$ (.05/10).

For the second research question, multiple regression analysis was used because the three tested dependent variables, LC, RC, and GK were continuous variables. Unlike the second research question, the third question used the OCL survey results as dependent variables. Thus not multiple regression but ordinal regression was run to investigate the strength of relationships between the linguistic variables and each of the OCL types. Even though degrees of participation in OCL were measured in a four-point Likert scale, the average amount of items for each type was used to indicate OCL, resulting in different numbers of levels in each type of OCL. The levels of participation were found to be nine levels between 1 and 4 in AI, fourteen levels between 1 and 3.6 in MFL, twelve levels between 1 and 3.33 in MFR, thirteen levels between 1 and 4 in PLA, and eighteen levels between 1 and 4 in SS.

IV. RESULTS

1. Types of OCL

The descriptive statistics of the OCL survey is presented in Table 1. The participants reported that they were involved in SS most frequently (M = 2.16, SD = .77), followed by PLA (M = 2.14, SD = .84), MFL (M = 1.89, SD = .61) and MFR (M = 1.47, SD = .50). The least frequently used OCL type was found to be AI (M = 1.31, SD = .55). Specific skills of SS on which the participants spent time from the most to the least were grammar, reading, listening, vocabulary, writing, and speaking. With regard to the PLA, online lectures were the most frequently used PLA, followed by taking classes in private institutes, participating in after-school programs, and receiving private tutoring. Listening to English songs was the most favored MFL activity, followed by watching movies and dramas, watching Youtube videos, watching the news, and listening to the radio. Internet surfing in English was reported to be the most frequently used MFR activity, followed by reading newspapers, reading news online, reading magazines, reading novels, and reading magazines and newspapers online.

A Friedman's ANOVA was conducted to answer the first research question, *Which types of out-of-class learning are used significantly more by Korean English language learners?*. There was a statistically significant difference in degrees of participation in OCL depending on its type, $X^2(4) = 194.980$, $p = .000$. Post hoc analysis with Wilcoxon signed-rank tests was conducted with a Bonferroni correction applied, resulting in a significant level set at $p < .005$. Median (IQR) involvement levels for AI, MFL, MFR, PLA, and SS were 1.00 (1.00 to 1.33), 1.80 (1.40 to 2.20), 1.33 (1.17 to 1.67), 2.00 (1.50 to 2.75), and 2.00 (1.67 to 2.67), respectively. There was no significant difference between PLA and SS

TABLE 1

Descriptive Statistics of the OCL Survey

Constructs	Items	Means (*SD*)
AI (authentic interaction)	1. I had a pen pal friend.	1.26 (.65)
	2. I ran SNS sites of my own in English.	1.26 (.69)
	3. I wrote replies in English using SNS.	1.41 (.73)
Average		1.31 (.55)
MFL (meaning-focused listening)	4. I listened to radio in English.	1.32 (.60)
	5. I listened to English songs.	2.55 (.92)
	6. I watched English news.	1.36 (.63)
	7. I watched English movies and dramas.	2.27 (1.01)
	8. I watched Youtube videos in English.	1.94 (1.01)
Average	*Make sure that these activities were not conducted as part of PLA.	1.89 (.61)
MFR (meaning-focused reading)	9. I read English magazines.	1.30 (.57)
	10. I read English newspapers.	1.38 (.66)
	11. I read English novels.	1.29 (.60)
	12. I surfed the internet in English.	2.19 (.95)
	13. I read news in English online.	1.37 (.69)
	14. I read magazines and newspapers online.	1.29 (.60)
Average	*Make sure that these activities were not conducted as part of PLA.	1.47 (.50)
PLA (paid learning activities)	15. I took classes in private English institutes.	2.32 (1.16)
	16. I participated in after-school English programs.	2.13 (1.02)
	17. I took private English tutoring.	1.75 (.98)
	18. I watched online lectures.	2.36 (1.01)
Average		2.14 (.84)
SS (self-study)	19. I did self-study to expand vocabulary.	2.21 (.99)
	20. I did self-study to learn grammar.	2.35 (.97)
	21. I did self-study to improve reading comprehension.	2.34 (.99)
	22. I did self-study to improve my listening skills.	2.23 (1.00)
	23. I did self-study to improve my speaking skills.	1.89 (.86)
	24. I did self-study to improve my writing skills.	1.94 (.86)
Average	*Exclude any activities that you did in MFL and MFR to answer these questions.	2.16 (.77)
OCL Average		1.85 (.52)

Note: 1 indicates 'never', 2, 'sometimes', 3, 'often', and 4, 'continuously'.

(Z = -.467, p = .641). However, there were statistically significant differences in degrees of involvement between all the other combinations of the categories: between AI and MFL (Z = -7.729, p = .000), between AI and MFR (Z = -4.277, p = .000), between AI and PLA (Z = -7.706, p = .000), between AI and SS (Z = -7.874, p = .000), between MFL and MFR (Z = -7.405, p = .000), between MFL and PLA (Z = -3.054, p = .002), and between MFL and SS (Z = -3.693, p = .000), between MFR and PLA (Z = -7.470, p = .000), and between MFR and SS (Z = -8.054, p = .000). The findings indicate that a degree of participation was almost equivalent between PLA and SS, which were the most frequently used OCL types by the participants, and it was significantly higher in the order of MFL, MFR and AI. The

contextual effect of AI appeared to be prominent in the Korean context as well because it was found to be the least frequently used OCL type.

2. Components of OCL Significantly Related to L2 Linguistic Variables

Table 2 shows means, standard deviations, and correlations of all the tested variables. A significant correlation was found in all except for one between PLA and RC and one between AI and GK. That is, different degrees of participation in PLA did not have significant association with the scores of the listening comprehension test (r = .310, p > .05). Similarly, how much the participants had been involved in authentic interaction in their OCL did not show a significant correlation to their scores on the grammar test (r = .131, p > .05).

A multiple linear regression was calculated to predict LC based on AI, MFL, MFR, PLA, and SS. A significant regression equation was found (F(5, 104) = 7.065, p < .000), with an R^2 of .254. Participants' predicted LC is equal to 21.117 - 2.011*AI + 5.868*MFL + 6.160*MFR - 1.280*PLA + 6.834*SS, where each predictor was measured in a four-point Likert scale. Participant's LC scores increased 2.011 points for one point of Likert scale on AI, 5.868 points on MFL, 6.160 on MFR, and 6.834 on SS. On the other hand, their LC scores decreased 1.280 points for one point of the Likert scale on PLA. However, out of the five tested predictors, a significant predictive effect was found only in SS (t = 1.986, p < .05). The finding indicates that even though all of the five OCL types were significantly correlated to LC, it was only SS that maintained its effect on LC when they were considered together to explain the variance in LC.

TABLE 2

Descriptive Statistics and Correlations

	OCL	AI	MFL	MFR	PLA	SS	LC	RC	GK
OCL	1								
AI	.579**	1							
MFL	.758**	.481**	1						
MFR	.790**	.490**	.635**	1					
PLA	.808**	.325**	.392**	.469**	1				
SS	.893**	.351**	.538**	.564**	.777**	1			
LC	.480**	.205*	.419**	.410**	.310**	.434**	1		
RC	.359**	.211*	.303**	.427**	.186ns	.280**	.718**	1	
GK	.353**	.131ns	.270**	.384**	.188*	.323**	.809**	.657**	1
M	1.85	1.31	1.89	1.47	2.14	2.16	50.64	17.62	14.94
SD	0.52	0.55	0.61	0.50	0.84	0.77	17.66	6.58	6.10

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

NOTE: the maximum score for LC, RC, and GK is 100, 54, and 33 respectively.

Another multiple linear regression was conducted to predict RC based on the same five predictors. A significant regression equation was found ($F(5, 104) = 4.888$, $p < .000$), with an R^2 of .190. Participants' predicted RC is equal to 8.897 -.060*AI + .350*MFL + 5.108*MFR - .847*PLA + 1.128*SS. RC scores increased .350 points for one point of the Likert scale on MFL, .350 on MFR, 5.108 on MFR, and 1.128 on SS. On the other hand, the RC scores decreased .060 for one point of the Likert scale on AI and .847 on PLA. A significant predictive effect was found only in MFR ($t = 3.067$, $p < .01$).

GK was regressed on the five predictor variables to identify specific types of OCL that make significant contributions to the variances in GK. A significant regression equation was found ($F(5, 104) = 4.633$, $p < .01$), with an R^2 of .182. Participants' predicted GK is equal to 7.596 - .940*AI + .073*MFL + 4.131*MFR - 1.260*PLA + 2.341*SS. GK scores increased .073 points for one point of the Likert scale on MFL, 4.131 on MFR, and 2.341 on SS. On the other hand, GK scores decreased .940 points for one point of the Likert scale on AI and 1.260 on PLA. A significant effect was found only in MFR ($t = 2.659$, $p < .01$).

The finding that MFR was the only significant predictor out of the five OCL variables not only for RC but also for GK was not surprising because both require ELLs to use the same language mode, and GK was shown to be a variable of high-evidence correlate with RC ($r = .85$) (Jeon & Yamashita, 2014). In order to identify specific aspects of MFR that had a significant effect on RC, stepwise multiple regression was conducted. Three out of six MFR items entered into the equation: OCL13 (*reading news in English online*), OCL10 (*reading English newspapers*) and OCL14 (*reading magazines and newspapers online*). These items together explained 24.1% of the variances in RC. Even though surfing the internet in English was rated as the most frequently used MFR, it was not part of the best combination of predictors of RC. However, the use of technology for MFR, reflected in OCL13 and OCL14, played an important role in predicting RC as well. When GK was regressed on six MFR, only one OCL item, 13 was found to be a significant predictor of GK, explaining 12.3% of the variances in GK. The finding suggests that reading online played an important role in explaining individual differences not only in RC but also in GK.

As for LC, the finding that SS subsumed the effects of the other OCL variables and turned out to be the only significant predictor for LC was unexpected. In order to examine specific aspects of SS that exerted a significant impact on LC, stepwise multiple regression was conducted using five SS items as predictors for LC. The result showed that SS on vocabulary alone explained 18.8% of the variance in LC, even though SS on grammar was the most frequently used SS activity. In addition, even though engaging in listening to authentic materials was significantly correlated to LC ($r = .419$, $p < .01$), an effort to expand vocabulary size, presumably bringing about more vocabulary knowledge acquisition, canceled out the effect of MFL on actual performance in LC. Considering the robust effect of vocabulary knowledge confirmed from the previous studies (Bonk, 2000;

Mecartty, 2000; Staehr, 2009), the finding of the present study seems to highlight the contextual effect of L2 learning in that an actual frequency of authentic listening activities, which was significantly less frequently used than SS, failed to overwrite the effect of vocabulary self-study on LC, particularly among Korean EFL learners of low-intermediate proficiency. It is, however, highly plausible that MFL cancels out the effect of SS on vocabulary when there is a high degree of engagement in authentic listening activities where ELLs can acquire vocabulary in a natural setting. Whether this speculation turns out to be true needs to be tested in another study.

3. L2 Linguistic Variables Significantly Related to the Components of OCL

To identify the strength of the effects that the linguistic variables had on each of the OCL types, ordinal regression was conducted five times with each dependent variable. A series of chi-square test of goodness-of-fit were performed to determine whether the three linguistic variables were significantly related to AI, MFL, MFR, PLA, and SS respectively. Except for the AI model, which was not significant, X^2 (3, N = 110) = 6.906, $p > .05$, the other four tested models were found to be significant: MFL model (X^2 (3, N = 110) = 20.519, $p < .000$), MFR model (X^2 (3, N = 110) = 25.048, $p < .000$), PLA model (X^2 (3, N = 110) = 14.479, $p < .01$), and SS model (X^2 (3, N = 110) = 28.754, $p < .000$). The values of pseudo R-square for AI, MFL, MFR, PLA, and SS were .066, .172, .207, .124, and .231 respectively.

The specific variables of significant effects on different types of OCL were identified based on parameter estimates. The results indicate that LC is a statistically significant predictor of MFL (Wald = 8.610, $p < .01$); RC (Wald = .079, $p = .778$) and GK (Wald = .923, $p = .337$) are not. RC is a statistically significant predictor of MFR (Wald = 4.874, $p < .05$); LC (Wald = .679, $p = .410$) and GK (Wald = .623, $p = .430$) are not. LC is a significant predictor of PLA (Wald = 9.357, $p < .01$); RC (Wald = .855, $p = .355$) and GK (Wald = .707, $p = .400$) are not. LC is also a significant predictor of SS (Wald = 15.443, $p < .000$); RC (Wald = .559, $p = .455$) and GK (Wald = .647, $p = .421$) are not.

To interpret the above findings in terms of prediction, for one point increase in the LC test score, the odds of high level of MFL versus the combined MFL levels are 1.06 times greater, given the other variables are held constant in the model. If a participant were to increase his or her RC test score by one point, his or her ordered log-odds of being in a higher MFR level would be 1.09 times greater while the other variables in the model are held constant. For one point increase in the LC test score, the odds of high level of OCL as opposed to the combined OCL levels are 1.06 times greater for PLA and 1.08 times greater for SS, given the other variables are held constant in the model.

The finding that AI was not predicted by any of the L2 variables is noteworthy. The

reason for this observation may come from the contextual effect that a degree of participation in AI is not enough to be shown in L2 achievements yet in the Korean context, especially among the target population of the present study whose average mock TOEIC score was around 390. Another reason may well be the inconsistency of language mode between AI and the tested L2 variables; AI involves productive skills such as speaking and writing. It is also possible that these two factors interacted. Considering the critical role of AI in the process of SLA, confirmed by SLA theories such as Long's (1996) interaction hypothesis and Swain's (1995, 2005) output hypothesis, figuring out how to increase AI as OCL activities is one of the crucial agenda for research. The finding of the study suggests that competence in LC, RC, and GK of the ELLs whose English proficiency ranged from low-to-intermediate levels is not related to AI. It needs to be investigated what other factors play a significant role in predicting more or less degrees of participation in AI.

Except for this AI model, the model of the three linguistic variables accounted for significant variances in MFL (17.2%), MFR (20.7%), PLA (12.4%), and SS (23.1%) respectively. What is notable is that LC was the only significant predictor of MFL, PLA, and SS, while RC was the only significant predictor of MFR. This indicates that the participants with better LC engaged more not only in MFL but also in PLA and SS activities, and those with better RC implemented more MFR activities. It is not clear how this finding should be interpreted. One possibility is that individual differences in RC may mostly explain cognitive aspects of language learning, whereas higher or lower competence in LC in an EFL setting may represent ELLs' attitudinal or self-regulated learning aspects. It is not possible for ELLs to develop L2 listening skills without constantly listening to L2 materials. Besides, the exposure to comprehensible English input in Korea is extremely limited. Thus it is inferred that ELLs who achieve a higher level of listening comprehension are likely to be those who have acted upon additional measures to overcome environmental constraints for language learning around them, resulting in more efforts to embark on diverse OCL activities such as PLA and SS in addition to MFL.

V. DISCUSSION

The present study aimed to identify the state of OCL among Korean EFL students, in particular, ELLs whose L2 proficiency is relatively limited, and to explore how different kinds of OCL are related to L2 LC, RC, and GK. Even though the participants were all freshmen at the beginning of their first year in college, the findings on OCL in this study should be interpreted with high school students as the target population in mind; the survey required them to rate a degree of participation in different kinds of OCL in preceding years, which referred to their high school education. Overall, their degree of participation in OCL

appeared to be weak because the average participation in SS, which was observed to be used most, was only 2.16, indicating slightly more than 'sometimes'. This finding is consistent with Park's (2008) finding that more than half of the participants in the study made little effort to get involved in listening-related OCL activities. Nevertheless, the OCL model was found to account for significant variances, ranging from 18.2 % and 25.5%, in linguistic variables.

With regard to different degrees of participation in specific OCL types, a statistically significant difference was found in nine pairs of comparison out of ten. SS and PLA were used significantly more than the other kinds of activities, which is consistent with the findings of the previous studies about OCL in an EFL context. Formal language learning, equivalent to SS, was the most frequently used OCL activities by British college students learning French as a foreign language in Freeman's (1999) study. Lai et al. (2015) also reported taking English tutorial classes, which reflected PLA or SS, to be the most frequently used activity along with meaning-focused listening among the Chinese middle school students. The second most used OCL type by the participants in the present study was MFL. MFR was used significantly less than MFL, SS and PLA but significantly more than AI. These results are also consistent with the findings from the previous studies in that authentic listening and reading were found to be more common than AI in an EFL setting such as in Taiwan (Shen, et al, 2005) and in China (Lai et al., 2015). Overall, a similar frequency pattern was observed in the Korean context as well.

As for the relationships between OCL activities and LC, RC and GK, SS, specifically SS on vocabulary, was found to be the only significant predictor of LC, whereas MFR was the only significant predictor of RC and GK. Thanks to the technological advancement in recent years, the widespread use of smart phones in particular, authentic language learning materials are easily available to Korean ELLs ubiquitously. It is good that MFR is a significant predictor of not only RC but also GK because online reading materials can be made comprehensible relatively easily when ELLs use other resources available online for checking background knowledge on topics of their choice as well as the meaning of unfamiliar words and phrases. This indicates that there is no structural constraint for more engagement in MFR for Korean ELLs. As a proactive approach, they can be explicitly taught in class on how to find articles of their interests online and read them independently. This is likely to boost ELLs' MFR activities in the outside of their classrooms, which is in turn likely to influence their RC and GK positively.

The finding of SS on vocabulary not MFL as the only significant predictor of LC was unforeseen. Why this observation was made is worth more discussion in that LC was also the only significant predictor of PLA and SS as well as MFL when the linguistics variables were all considered; LC has more predictive power for OCL activities than the other linguistic variables tested in this study. One plausible explanation may come from the

quality of MFL activities implemented by the participants. It is difficult to find authentic listening materials of an appropriate level of comprehensibility for Korean ELLs to listen to and, as a result, to engage in MFL activities of good comprehension. It is highly plausible that this condition was the case for the participants in this study whose L2 proficiency ranged from low to intermediate levels. It is speculated that ELLs who managed to find ways to expand their vocabulary among this subpopulation were those who also managed to succeed in overcoming environmental constraints for improving their ability in LC, resulting in the involvement in diverse OCL activities including SS on vocabulary. This interpretation is consistent with the prominent role of vocabulary in LC which was already confirmed by the previous studies (Bonk, 2000; Mecartty, 2000; Staehr, 2009). It appears that there is a strong need for researchers as well as teachers to develop and provide specific guidelines for Korean ELLs on how to find authentic listening materials of an appropriate level of comprehensibility or, when it is not possible, how to make difficult authentic listening materials comprehensible. Training ELLs with specific strategies, ones for expanding their vocabulary in particular, is likely to increase their engagement in MFL in the outside of classrooms, which can lead to a higher probability of their becoming more autonomous lifelong language learners.

The last point worth discussing is that the model of the three linguistic variables as predictors did not explain significant variances in AI, neither did AI predict any of the linguistic variables. Probable causes behind this observation were explained to be the participant's limited L2 proficiency ranging from low to intermediate levels and the disparity in a language mode involved; AI involved productive skills, whereas the linguistic variables tested tapped into receptive skills. Whether a different degree of participation in AI is related to different levels of proficiency in speaking and writing needs to be confirmed in another study. However, one pedagogical implication of the finding on AI, whose average score was close to "never" (1.31), needs to be noted. Even though the successful use of productive skills in authentic interaction requires both fluency and accuracy, fluency precedes accuracy given that interlanguage, which is not like the target language, needs to be developed first in order for it to become like the target language. In order for ELLs to develop their own interlanguage, a considerable amount of using the language is a prerequisite. Without a minimum level of fluency, which can sustain conversational turns in AI, ELLs are not likely to utilize any chances for AI in the outside of classrooms even if there are any around them. Thus, teachers should make sure that classes include activities conducive to the development of fluency so that their students are equipped at least with a minimum level of fluency that enables them to embark AI as OCL activities. This appears to be another critical research question that needs to be explored.

VI. CONCLUSION

The present study was conducted as exploratory research on OCL and its relationships with L2 linguistic variables. It delineated basic relationships among the tested variables for one group of subpopulation, Korean ELLs whose proficiency ranged from low-to-intermediate levels, while it opened up a few questions for further investigation such as how ELLs with higher levels of proficiency engage in OCL and how it affects their L2 skills, including productive ones such as speaking and writing, and vice versa. There has been intuitive understanding of the EFL contextual effect on Korean ELLs, and this intuition was confirmed empirically by the findings of the study. In addition, a relative weight of different OCL types and their relationships with receptive skills-related L2 variables was evaluated within the target population. Thanks to Enforcement Decree of Higher Education Act in 2017, universities and colleges are now allowed to try out courses and curriculums with a high degree of flexibility. OCL may well become one of the key topics to be considered in designing courses, curriculums, and extra-curricular programs in line with the new direction that the education of the 21st century pursues. For example, programs that train effective OCL types can be designed and be offered as a series of segments for ELLs to choose, based on their interests and needs, and to build their own curriculum. Further studies on such programs can provide empirical evidence on the relationships between OCL and the promotion of learner autonomy. In this sense, the findings of the study can feed into a strategic endeavor to cope with a new challenge of nurturing autonomous language learners.

Limitations of the study need to be addressed. In order to identify the relationship between OCL and L2 proficiency in a fine grain size, it would be best to partial out the effects of formal schooling on L2 proficiency because the quality of the participants' in-class learning as well as differential degrees in OCL activities was bound to affect the scores of mock TOEIC in the present study. In this sense, it would be best to control for the effect of in-class learning. However, there is no available instrument to operationalize this aspect of learning. One possible indicator for this construct could have been levels of CSAT, which were reported in the previous section, but they also represent quality of not only in-class but also out-of class learning because OCL also influences achievements in the CSAT; OCL was in fact found to be significantly correlated with CSAT (r = -.432; p = .000). Thus, the interpretations of the findings need to be made with this possible effect of differential quality of in-class learning in mind. The limitation of self-report also needs to be noted. A study that tracks students' actual OCL over a long period of time can inform us of more accurate understanding on the effects of OCL as well as causal relationships between the tested variables, which is worth further investigation.

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Examples in: English
Applicable language: English
Applicable Levels: Adolescents and College

Eun-Jou Oh
English Education Center
Korean Bible University
(139-791) 205 SangGye 7-dong, Nowon-gu, Seoul
E-mail: eunjouoh@bible.ac.kr

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