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A Structural Model for Korean EFL Students' Writing Performance*

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The current investigation performed a series of model testings with Structural Equation Modeling (SEM) to illuminate potential factors that were predictive of Korean students' EFL writing performance. In view of previous literature, seven factors (i.e., L1 writing ability, cognitive knowledge, positive attitude, perceived English proficiency, free reading, free writing, and writing apprehension) were hypothesized to be related to students' EFL writing performance either directly or indirectly. Results of the present study showed that Korean students' EFL writing performance was directly influenced by students' L1 writing ability, cognitive knowledge of L2 writing, and practice in free writing. The present study also evidenced that positive attitude toward writing was indirectly related to EFL writing performance via free writing, as hypothesized. Contrary to expectation, however, free reading and perceived English proficiency were found to be only indirectly linked to EFL writing performance. The indirect relation of students' EFL writing performance to free reading and perceived English proficiency was mediated by free writing. Pedagogical implications are discussed in order to address these findings in relation to instructional activities in the Korean EFL writing classroom.

I. INTRODUCTION

Factors affecting EFL (English as a Foreign Language) students' writing performance have received substantial attention from researchers in the area of L2 writing. Previous studies of L2 writing suggest that cognitive, affective or linguistic factors significantly contribute to EFL students' successful writing performance. In order to write successfully in English, students are expected to possess knowledge about how to make plans, how to generate ideas, and how to organize texts (e.g., Flower & Hayes, 1980). Beyond the

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cognitive side, EFL writers are also expected to effectively deal with affective or attitudinal variables, such as writing anxiety, writer's block, or beliefs about and attitudes toward EFL writing. In terms of language, writers need to correct errors in multiple drafts either for themselves or through feedback from the instructor or peers. Even after completing the first draft, EFL writers should be aware of the writing traditions in the specific content areas and reader expectations. Existing EFL writing theories as well as empirical data attest to the predictive power of these factors in explaining the proportion of variances surrounding L2 writing proficiency.

It must be noted, however, that most of the previous L2 writing studies have focused on individual pieces of the writing puzzle, so that a more comprehensive model of EFL writing performance is yet to be developed. So far only a few studies (e.g., Lee, 2005; Sasaki, 2000; Sasaki & Hirose, 1996) have examined the combined effects of multiple factors that are related to EFL writing performance. However, EFL writing models suggested by these studies are not comprehensive enough, and accordingly, some of the important key variables contributing to successful EFL writing performance were not considered. As for the methodology, most of the previous studies employed either simple multiple regressions or qualitative analysis of the writing behaviors of the selected cases, hence giving little information about the exact causal relationship among the various factors affecting EFL writing performance. Moreover, up to this point, no efforts have been addressed to the structural specification of the variables that directly or indirectly lead to students' successful writing performance in the Korean EFL context. Therefore, a study that aims to set up a structural model of L2 writing performance for Korean EFL students seems to be necessary. Hence, the purpose of the present study is to simultaneously analyze the causal relationship among cognitive, attitudinal, and linguistic factors that may influence EFL students' writing performance for a sample of Korean university students using an SEM (Structural Equation Modeling) approach.

II. RESEARCH BACKGROUND

1. Review of Literature

L2 writing researchers have directed scholarly efforts to the identification of the factors that influence successful writing performance. As a result, variables which are of importance to successful L2 writing both theoretically and practically are well documented in the literature. Among the many variables, interests in L2 writers' cognitive or metacognitive ability to juggle with all the constraints imposed by writing in an L2 have led researchers to examine the constituents of a good text (e.g., Flower & Hayes, 1980;

Schoonen & de Glopper, 1996; Schoonen et al., 2003), writing behaviors and strategies typically taken by successful writers (e.g., Leki, 1995), the differences between proficient versus novice writers on the one hand, and between L1 versus L2 writers on the other (e.g., Cumming, 1989; Raimes, 1985; Silva, 1993; Zamel, 1982, 1983). These researchers suggest that compared to less proficient writers, proficient writers tend to focus more on text organization, give more attention to global planning and macro or discourse level revision, and check the flow of ideas (Sasaki, 2004). In addition, proficient writers, regardless of their target language of writing, are highly likely to employ a variety of writing strategies. For instance, it is reported in the literature that skilled writers take clarifying and focusing strategies, tend to rely on experiences from past writing instructions, look for models, effectively manage different time constraints, and take advantage of the feedback from the instructor or peers (e.g., Ferris & Hedgcock, 1998; Leki, 1995; Tae-II Pae & Kyoo-Lak Cho, 2007). Moreover, these writing strategies are transferable from students' L1 to L2 (e.g., Tae-II Pae & Kyoo-Lak Cho, 2007), and it is further noted that writing strategies may play a significant role in accounting for students' writing performance (e.g., Sasaki, 1996; Whalen & Menard, 1995).

Similarly, it is suggested that students' metacognitive knowledge about L2 writing may have an impact on the successful performance of L2 writing, and this possibility has been confirmed through several studies (e.g., Tae-II Pae & Kyoo-Lak Cho, 2007; Reid, 1990; Sasaki & Hirose, 1996; Schoonen et al., 2003; Victori 1999). For example, Sasaki and Hirose (1996) investigated variables that were associated with Japanese university students' English writing ability using a multiple regression, and they found that students' metacognitive knowledge was significant in explaining the L2 writing ability. Similar results were obtained from a Dutch sample (Schoonen et al., 2003). Specifically, Schoonen and colleagues performed both SEM and multiple regression analyses to accurately gauge the true correlations between L2 writing proficiency and a set of independent variables that are not attenuated by measurement errors. The study showed that metacognitive knowledge as well as L1 writing ability significantly predicted students' L2 writing proficiency. The same pattern was also observed with Korean data. In a case study with two novice L2 writers, Tae-II Pae and Kyoo-Lak Cho (2007) reported that students' lack of metacognitive knowledge about L2 writing was found to be one of the main sources of difficulties L2 writers encountered in the process of writing. Hoyeol Ryu (2001), however, found that the effect of social cognitive ability on English writing was moderated by students' level of English proficiency. For the high English proficiency group, social cognitive ability was a significant predictor of English writing ability, whereas for students with low English proficiency there was no significant relationship between students' English writing ability and social cognitive knowledge.

The level of writing anxiety or writing apprehension EFL writers perceive in the process

of writing exerts a strong negative influence on students' potential L2 writing ability or performance. Students with negative feelings from previous writing experiences (e.g., negative feedback or evaluation) are less motivated to be involved in a writing task, tend to suffer lack of confidence in L2 writing, and are not likely to put much value on L2 writing, which directly or indirectly inhibits students' successful L2 writing performance.

Empirical evidence about writing apprehension generally suggest a negative correlation between writing apprehension and various measures of students' EFL writing performance across different national samples. In case of Chinese and Taiwanese sample, it was found that writing apprehension was negatively correlated with students' writing performance in EFL as well as in their L1 (e.g., Lee & Krashen, 1997) for high school (e.g., Lee, 1996) and university students (e.g., Lee, 2002). This pattern was consistently observed for different measures of students' L2 writing performance (e.g., Cheong, Horwitz, & Schallert, 1999; Lee, 2001). In Korea, Dongkyoo Kim and Miyoung Ma (2007) found significant relationships between EFL writing proficiency and affective domains for a sample 55 elementary school students. Negative perception about a writing task (i.e., perceived task difficulty), however, was found to play no significant impact on Korean high school students' EFL writing performance (Yeon-Hee Choi, 2000). It must be pointed, however, that a significant correlation coefficient is defined as the strength of the relation between two variables that is statistically different from zero (Crocker & Algina, 1986), and thus it is not clear how strong a correlation coefficient deserves a strong relation. Furthermore, it is known that a correlation analysis is limited by its failure to define causality between two target variables (e.g., Tae-II Pae, 2006, 2008; Tae-II Pae & Gi-Pyo Park, 2006). Therefore, it is still open to question whether or not writing apprehension is causally linked to students' EFL writing proficiency. To the best knowledge of the researcher, Lee (2005) is the only study that utilized SEM for the analyses of the relationship between EFL writing proficiency and a set of other variables including writing apprehension. Using 270 Taiwanese university students, the SEM analysis revealed that writing apprehension was not causally related to EFL writing performance either directly or indirectly. The results of this study show a sharp contrast to the previous findings, thereby heightening the need of further investigation in this issue.

In a related manner, positive or negative attitudes toward L2 writing and instructional activities are expected to facilitate or inhibit EFL writing performance. However, as is the case with writing apprehension, the effects of attitudinal variables on EFL writing performance are mixed (Ferris, 1999; Krashen, 1984; Norris & Ortega, 2000; Truscott, 1999).

Language-related variables such as L1 writing ability, L2 lexical and grammatical knowledge, and knowledge of English punctuation are also an important component of EFL writing ability (Engber, 1995; Grabe & Kaplan, 1996; Laufer & Nation, 1995).

Among these factors, the importance of L2 linguistic knowledge seems to be self-evident, considering the fact that L2 writers need to have knowledge of the target language of writing if they want to express their ideas in the L2. The importance of L1 writing ability in explaining the variances associated with L2 writing performance, however, has not been consistently supported by empirical data. In an investigation with French writers of English, Cumming (1989) verified the significant effect of L1 writing ability (i.e., French) on L2 writing (i.e., English) across three different types of writing (i.e., letter, argument, and summary). Similarly, Sasaki and Hirose (1996) demonstrated that a significant proportion of the variances (i.e., 18%) in Japanese university students' EFL writing proficiency was regressed on students' L1 writing ability. In contrast, Carson et al. (1990) reported a nonsignificant correlation between L1 and L2 writing ability both for Chinese and Japanese students. Results from Pennington and So (1993) were in line with Carson et al. (1990) in that there was no clear relationship between Singaporean students' L1 and L2 writing ability. However, a more recent study with SEM procedure (Schoonen et al., 2003) indicated that Dutch students' L1 writing ability made a unique contribution to the prediction of L2 writing performance.

Given the close relationship between reading and writing (e.g., Ferris & Hedgcock, 1998; Grabe, 2003; Krashen, 1993; Shanahan & Lomax, 1986), it is suggested that voluntary practices in free reading and writing may enhance the quality of L2 writing performance, thus indicating that competent L2 writers read and write more than less competent L2 writers do. Empirical studies touching on the issue of free reading and writing in relation to L2 writing performance are rather rare. In an SEM analysis with 270 Taiwanese students, Lee (2005) showed that free reading was causally related to L2 writing performance, whereas free writing was not either directly or indirectly. However, a deviant pattern was found for a Korean sample. Using a pre-post experimental design, Yeon-Hee Choi and Min-Sun Sung (2006) examined the effects of three different instructional treatments (i.e., reading group, writing group, and reading journal writing group) on English writing scores for three groups of 180 Korean high school students. The study reported that the group receiving integration of reading and writing (i.e., reading journal writing) showed the largest improvement in English writing scores, followed by the writing group. The reading group showed a nonsignificant change in English writing scores, signaling that reading activities may not make a significant impact on the improvement of Korean high school students' EFL writing performance. A study with a more rigorous design should address these conflicting findings.

2. Model Specification for EFL Writing Performance

Review of previous research in L2 writing suggests that students' successful performance of L2 writing is a function of multiple factors, and the relation of these factors to L2 writing performance may be complex, often mediated or moderated by potential confounding variables and/or interaction of the multiple factors. Therefore, it seems to be necessary to make a systematic investigation of the factors affecting L2 writing performance using a sophisticated statistical procedure, which not only specifies all the structural relationships between observed and unobserved variables in the presence of mediators and moderators but also simultaneously controls multiple measurement errors.

In response to this call, the present study performed a series of model-testings with an SEM (Structural Equation Modeling) procedure. In order to identify a structural model of L2 writing performance that best fits the data, findings from previous L2 writing studies were considered. First, it was hypothesized that linguistic and cognitive variables would be directly related to L2 writing performance, whereas affective or attitudinal variables would be linked to L2 writing performance only indirectly through mediating variables. In addition, free reading and writing were assumed to directly influence L2 writing performance. Specifically, the following five research hypotheses were formulated to accurately describe these relations.

H1: L1 writing ability will directly influence L2 writing performance.

H2: Cognitive knowledge of L2 writing will directly influence L2 writing performance.

H3: Perceived L2 proficiency will directly influence L2 writing performance.

H4: Free reading and writing will directly influence L2 writing performance.

H5: Attitudes to L2 writing and writing apprehension will indirectly influence L2 writing performance.

III. METHODS

1. Participants

There were a total of 96 participants for the current investigation. All of them were university students majoring English language education at a large university in Korea. Among them, 66 students were female (69%). The mean of the age was 23.2. Initially, the researcher explained the purpose of the present study, and students were freely invited to participate in the present investigation. A total of 102 students participated in the data collection procedure. However, data from six students were eliminated from the data pool

either due to missing or systematic bias found in the response pattern, thus resulting in the final sample of 96.

2. Instrument

The present study examined the structural relationships among eight latent constructs (i.e., L1 writing ability, perceived L2 proficiency, cognitive knowledge of L2 writing, free reading, free writing, positive attitude toward L2 writing, writing apprehension, and L2 writing performance), as indicated by the five research hypotheses, and the latent constructs were measured by their corresponding indicator (i.e., observed) variables. All the indicator variables were based on a 5-point Likert scale, and reliability evidence for each latent construct was measured by Cronbach's coefficient alpha. Items were recoded, as necessary, before the data entry.

Among the eight latent constructs, students' L2 writing performance was measured by an EFL writing task, where students were asked to write an argumentative essay on the effects of TV on society in 30 minutes. The English essay was rated by two independent raters (inter-rater reliability = 0.89), following a two-step scoring procedure recommended by Lee (2005). The first step required the rater to evaluate students' writing based on a holistic scoring system with the value range from 1 (poor) to 6 (excellent). Next, the second step implemented an analytic scoring system, whereby raters were asked to assign a score from 1 to 9 for the essay mainly in terms of vocabulary, grammar, and mechanics. Scores from the two-step scoring procedure were put together and formed a final two-digit writing score for the essay. For instance, if a student's essay received 3 from the first step and 2 from the second step, her final writing score would be 32. Therefore, the possible value ranges for the EFL writing scores were from 11 to 69. The same scoring procedure was applied to the measurement of students' L1 writing ability, whereby students were required to write an argumentative essay about wearing school uniform scored by two independent raters (inter-rater reliability = 0.84), but this time in Korean. Information about each latent construct and its corresponding indicator variables was provided below.

1. L2 Writing Performance (2 items, alpha = 0.93): Measured by an EFL writing task rated by two independent raters
2. L1 Writing Ability (2 items, alpha = 0.90): Measured by a Korea writing task rated by two independent raters
3. Perceived L2 Proficiency (4 items, alpha = 0.81): Two aggregate scores were formed.
 - A. I am good at reading English.
 - B. I am good at writing English.
 - C. I am good at understanding English.

- D. I am good at speaking English.
4. Cognitive Knowledge (2 items, $\alpha = 0.67$)
- A. I know how to write on issues that have many interpretations.
 - B. To write essays on books and articles that are very complex is difficult.
5. Free Reading (6 items, $\alpha = 0.80$): Two aggregate scores were formed.
- A. I read English for pleasure.
 - B. I visit the library or check out books for outside reading.
 - C. I visit bookstores looking for books I am interested in.
 - D. I am interested in reading English on the Net.
 - E. I read English newspaper.
 - F. I read English magazine
6. Free Writing (4 items, $\alpha = 0.76$): Two aggregate scores were formed.
- A. I have regular email exchanges in English with my pen pals.
 - B. I keep a diary in English.
 - C. I practice English writing for my own interest.
 - D. I have email exchanges in English even with my Korean friends.
7. Positive Attitude toward L2 Writing (4 items, $\alpha = 0.87$): Two aggregate scores were formed.
- A. I look forward to writing down my ideas in English.
 - B. I like to have my friends read what I have written in English.
 - C. Writing English is a lot of fun.
 - D. I like to see my ideas in English.
8. Writing Apprehension (4 items, $\alpha = 0.81$): Two aggregate scores were formed.
- A. I am afraid of writing English essays when I know they will be evaluated.
 - B. Taking an English writing class is a very frightening experience.
 - C. I am nervous about English editing.
 - D. My mind seems to go blank when I start to work on an English composition.

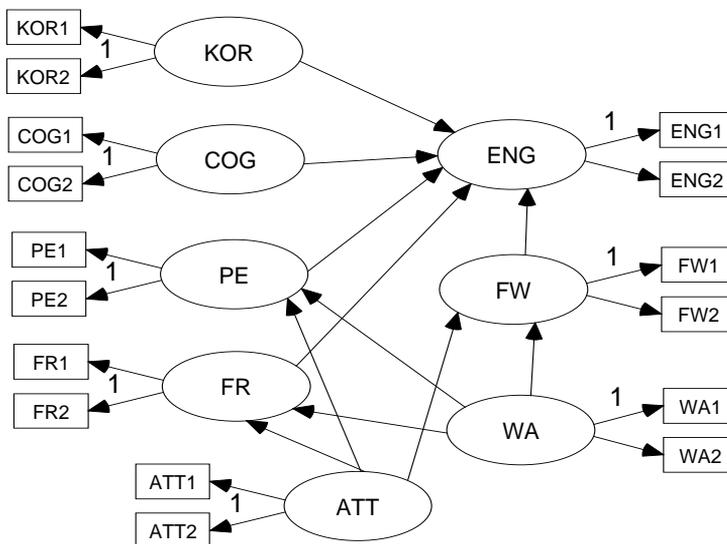
3. Analysis

The structural relationships among the eight latent factors were analyzed using the SEM methodology. The development of the basic SEM model was guided by the five research hypotheses formulated in the present study, and Figure 1 reflects the initial relations among the eight factors. Specifically, a direct path was placed between L1 writing ability and L2 writing performance. Similarly, it was assumed that cognitive knowledge, perceived English proficiency, free reading, and free writing were directly related to L2 writing performance. Positive attitude and writing apprehension, however, were specified to be indirectly linked to L2 writing performance via perceived English proficiency, free

reading, and free writing, since it makes an intuitive sense that a student with more positive attitude and less writing apprehension will have a better perception of one's English proficiency and will spend more time in free reading and writing, which eventually leads to better performance in EFL writing. LISREL 8.5 program (Jöreskog & Sörbom, 1996) was utilized in order to calibrate the path loadings of the basic SEM model, and all the parameter calibration was based on the maximum likelihood estimation (MLE). To solve scale indeterminacy among latent variables, the path loading linking between a latent factor and one of its corresponding indicator variables was constrained to be one.

FIGURE 1

The Basic SEM Model Representing the Structural Relationships among Eight Factors



Note. KOR: L1 Writing Ability; COG: Cognitive Knowledge; PE: Perceived English Proficiency; FR: Free Reading; ATT: Positive Attitude toward Writing; ENG: EFL Writing Performance; FW: Free Writing; WA: Writing Apprehension

IV. RESULTS AND DISCUSSION

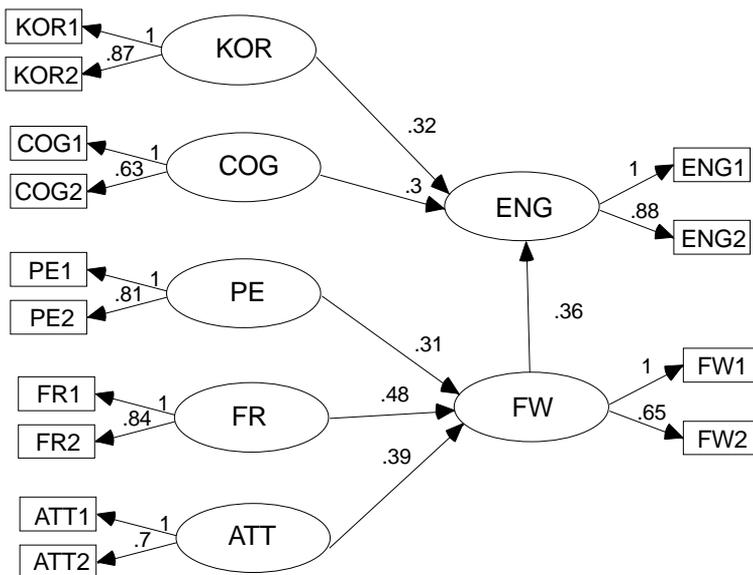
1. The Final SEM Model

The basic SEM model with a total of 16 observed and eight latent variables was subjected to the LISREL analysis. However, the basic model produced unsatisfactory mode-data fit statistics, as evidenced by a significant chi-square value, an unacceptable

range of ratio of chi-square value to the degree of freedom (i.e., a ratio over 2), GFI (Goodness of Fit Index) and CFI (Comparative Fit Index) values below 0.9, and an RMSEA (Root Mean Square Error of Approximation) value above 0.05. Furthermore, upon close investigation of the LISREL output, it was found that writing apprehension with two indicator variables was poorly estimated, as signaled by negative error variances of these indicator variables. Therefore, writing apprehension was removed from the SEM model.

The revised SEM model with a total of 14 observed and seven latent variables showed a better fit of the model to the data, but the fit was still unsatisfactory. As a result, it was decided that the SEM model should be re-specified. Re-specification of the SEM model was guided by previous findings reported in the literature as well as the modification indices provided by the LISREL program. The final SEM model that showed substantial improvement in the model-data fit was identified after 10 re-specifications.

FIGURE 2
The Final SEM Model



Note. KOR: L1 Writing Ability; COG: Cognitive Knowledge; PE: Perceived English Proficiency; FR: Free Reading; ATT: Positive Attitude toward Writing; ENG: EFL Writing Performance; FW: Free Writing. All the path loadings were significant at the 0.05 alpha level.

Figure 2 presented the final SEM model. The final model produced a chi-square value of 70.58 with 58 degrees of freedom ($p = .124$). The ratio of the chi-square value to the degrees of freedom is 1.22, and other fit indices also suggest a satisfactory fit (e.g., GFI = .9, CFI = .96, NNFI = .94, RMSEA = .051), thus signaling that the model adequately represented the sample data.

2. Results of Hypothesis Testing

According to the final model, it was found that L1 writing ability directly influenced Korean EFL students' L2 writing performance, as evidenced by the significant path between L1 writing ability and L2 writing performance, thereby accepting Hypothesis 1. This result confirmed the findings reported by Sasaki and Hirose (1996), Schoonen et al. (2003), and Cumming (1989) but showed deviance from those reported by Carson et al. (1990) and Pennington and So (1993). Since the effect of L1 writing ability on L2 writing performance was observed from various national samples, such as Korean, Japanese, Dutch, and French, it may be inferred that the effect of L1 writing ability on L2 writing performance is not a function of specific language (i.e., oriental versus western language).

Cognitive knowledge of L2 writing also made a direct impact on Korean students' EFL writing performance, which concludes the acceptance of Hypothesis 2. This result is in line with previous empirical findings (Ferris & Hedgcock, 1998; Flower & Hayes, 1980; Tae-II Pae & Kyoo-Lak Cho, 2007; Raimes, 1985; Sasaki & Hirose, 1996; Schoonen & de Glopper, 1996; Schoonen et al., 2003; Zamel, 1982, 1983), and indicates that Korean EFL writers also need to successfully juggle with all the cognitive constraints in order to be a competent L2 writer, as is the case with EFL writers with different national backgrounds. This further implies that L2 writing is basically a cognitive act, supporting the cognitivist view of L2 writing. Hence, instructional activities focusing on high-order thinking and problem-solving operations are advised for L2 writing classroom.

Hypothesis 3, which specified the direct relation between perceived English proficiency and L2 writing performance, was not sustained in the present study, since it was found that Korean students' perceived English proficiency did not make a direct influence on their EFL writing performance. Instead, the effect of perceived English proficiency on L2 writing performance was mediated by free writing. In other words, Korean students who experienced a better perception of their English proficiency were more involved in free writing activities. This finding contradicts Sasaki and Hirose (1996), Cumming (1989), and Pennington and So (1993) but verifies Raimes (1987). It must be noted, however, that the present study implemented a methodological difference from the previous studies in that the present study employed a proxy variable (i.e., perceived English proficiency instead of a direct measure of English proficiency) in the assessment of students' English

proficiency. Because of this difference, caution is advised in generalizing the result of the present study. On the other hand, the present finding that perceived English proficiency did not make a direct impact on L2 writing performance also highlights that a proxy measure for English proficiency (i.e., perceived English proficiency) shared more with affective or attitudinal variables than linguistic or cognitive ones.

The results of the present study also reveal that free writing was directly related to EFL writing performance, whereas free reading was only indirectly linked to EFL writing performance via free writing, hence partially accepting Hypothesis 4. This suggests that Korean university students with more free reading tend to write more frequently, which leads to a better performance in EFL writing. This confirms the close relationship between reading and writing (e.g., Ferris & Hedgcock, 1998; Grabe, 2003; Krashen, 1993). It merits attention that the current results present an opposite pattern to the finding reported by Lee (2005), which witnessed that free reading was directly related to Taiwanese EFL students' writing performance, whereas free writing did not predict Taiwanese EFL students' writing performance either directly or indirectly. Therefore, free writing activity seems to be a valuable component of EFL writing instruction and should be promoted for Korean EFL students. However, when it comes to the unique predictive power of free reading and writing in relation to EFL writing performance, it was found that free writing had stronger influence on students' EFL writing performance, consistent with previous empirical studies with Korean samples (e.g., Yeon-Hee Choi & Min-Sun Sung, 2006).

With regards to the relation (i.e., Hypothesis 5) between students' EFL writing performance and affective or attitudinal variables (i.e., positive attitude and writing apprehension), the effect of writing apprehension on EFL writing performance was not analyzed, since questionnaire items tapping the construct of writing apprehension were poorly estimated and therefore were dropped from the SEM analysis. As evidenced by the final SEM model (Figure 2), there was no direct relation between students' positive attitude and EFL writing performance, which disconfirms the causal relationship between EFL students' feelings about writing tasks and the actual writing performance, basically in accordance with the previous literature (e.g., Cheong, Horwitz, & Schallert, 1999; Lee, 2001, 2005; Yeon-Hee Choi, 2000). Nevertheless, it was found that the effect of positive attitude was carried over to EFL writing performance through free writing, indicating that students with more positive attitude toward writing are more likely to enjoy voluntary writing practices, hence a better performance in EFL writing. Therefore, Hypothesis 5 was accepted. It is interesting to note, however, that the results of the present study were not parallel to Dongkyoo Kim and Miyong Ma (2007), where Korean elementary students' affective level significantly predicted students' EFL writing proficiency. A future study focusing on the developmental change of the relation between these two variables is necessary.

V. CONCLUSION AND IMPLICATIONS

The current investigation performed a series of model testings with SEM to illuminate potential factors that were predictive of Korean students' EFL writing performance. In view of the previous L2 writing studies, seven factors across three major domains (i.e., linguistic, cognitive, and affective/attitudinal) were hypothesized to be related to Korean students' EFL writing performance either directly or indirectly via mediating variables. Specifically, L1 writing ability, cognitive knowledge of L2 writing, perceived English proficiency, free reading, and voluntary practices of writing were expected to show a direct relation to students' EFL writing performance, whereas the relation of affective (i.e., writing apprehension) and attitudinal variables (i.e., positive attitude) to EFL writing performance were assumed to be mediated through free reading, perceived English proficiency, and free writing. Preliminary analysis of these factors, however, disclosed that writing apprehension was poorly estimated (i.e., had negative error variances), and accordingly this factor was removed from subsequent SEM analyses.

Results of the SEM analyses confirmed the direct role played by L1 writing ability, cognitive knowledge, and free writing in the EFL writing performance of Korean university students. The present study also showed that positive attitude was indirectly related to EFL writing performance, as hypothesized. Contrary to the expectation, however, perceived English proficiency and free reading were found to be indirectly linked to Korean students' EFL writing performance. The indirect relationship between EFL writing performance and the three indirect variables (i.e., positive attitude, perceived English proficiency, and free reading) was mediated by free writing. In other words, a Korean student who has a better perception of her English skills, thinks more positively about writing, and spends more time in free reading is highly likely to have more free writing, which in turn enhances the student's writing performance.

Taken together, results of the present SEM analyses pinpoint three factors that directly lead to students' better performance in EFL writing, which casts further implications for the EFL writing instruction in the Korean context. First, as demonstrated by the direct path linking L1 writing ability to EFL writing performance, training in L1 writing (i.e., Korean writing) should be promoted for Korean EFL students' successful writing performance. As such, Korean university students may be required to take courses in L1 writing as prerequisites. Alternatively, a team teaching model between L1 and L2 writing may be proposed to effectively deal with the close relation between L1 and L2 writing. Second, the present study also highlights the importance of direct instruction in L2 writing, since it was found that cognitive knowledge of L2 writing directly accounted for successful EFL writing performance. Therefore, class modules focusing on the cognitive aspects of EFL writing (e.g., components of a good English text, successful L2 writing strategies, English

writing conventions and traditions, expectations from the audience, etc.) should receive due attention from the instructor. Finally, students' voluntary involvement with free L2 writing should take priority in EFL writing instruction in Korea, since free L2 writing not only directly influences Korean students' EFL writing performance but also mediates the relation between EFL writing performance and three important L2 writing variables (i.e., free reading, positive attitude, and perceived English proficiency). In this regard, EFL writing instructors in Korea are advised to encourage their students to be engaged with free L2 writing activities, such as writing emails or keeping diary in English, journal entry, chatting, or discussion on the Story Board. To give instructional support to free L2 writing, EFL writing teachers are recommended to provide the rationale and advantages of free L2 writing, so that students can be better motivated to be involved with free L2 writing activities.

Along with these direct factors, EFL writing teachers also need to be reminded of the indirect factors such as perceived English proficiency, positive attitude, and free reading that contribute to successful EFL writing performance. The importance of these indirect factors, however, should be considered in relation to free L2 writing, because each of these factors can't make a direct effect on L2 writing performance by itself as far as Korean university students are concerned. Thus, instructional efforts need to be addressed to the interactive activities between free reading and writing. In addition, emphasis should be given to the positive feedback that does not hurt students' self-perception of their English proficiency as well as a teacher-student networking that is sensitive to students' needs and feelings, since Korean university students seem to follow these paths to be a successful EFL writer.

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