

ABSTRACT

Title of Document: CONTRIBUTIONS OF PRIOR KNOWLEDGE,
MOTIVATION, AND STRATEGIES TO
KOREAN COLLEGE STUDENTS' L2
WRITING DEVELOPMENT

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The current study examined Korean college students' L2 writing development and performance, motivation, and strategies while taking ESL writing classes. The present study expands the literature by examining the effects of various learner characteristics on L2 writing development. The selection and the expected effects of learner variables were particularly guided by the Model of Domain Learning (MDL).

Prior work has demonstrated motivation, strategy, and prior knowledge are associated with L2 writing development. For example, a study by Leki (2007) showed L2 writing motivation (i.e., goals) to be related to L2 writing proficiency. He (2005) developed a model and a measure for assessing strategies relevant to motivation in L2 writing. The current study sought to expand and elaborate on previous works, as the extant L2 writing literature has been limited in showing changes in learning factors over time and in incorporating learner characteristics into studies of L2 writing.

The current study sought to answer the following questions:

1. To what extent and in what manner do Korean college students' initial self-efficacy and interest contribute to changes in L2 writing performance over time?; 2. How are Korean college students' interest and self-efficacy at the beginning (Time 1) and at the conclusion (Time 3) of an L2 writing course related to L2 writing performance and self-reported strategy use at time 1 and 3?; 3. How is Korean college students' prior L2 writing knowledge associated with their L2 writing motivation, self-reported strategy use, and writing performance?

In order to answer these questions, a multi-methods design was performed, where interviews were used to support what was found in analyses results with self-report measures. Results based on growth curve modeling with cohort data at three time points suggested that students' motivational orientation significantly predicts Korean college students' L2 writing performance at the beginning of a semester. However, the influence of initial motivation on the growth rate of L2 writing proficiency, specifically L2 writing performance, was negative. The cross-sectional and longitudinal analyses in this study concluded that the contributions of motivation constructs to L2 writing performance depended on *time*. While there were a few exceptions (i.e., non-significant relation between L2 prior knowledge and students' interest at Time 1), study findings generally indicated that L1 and L2 writing prior knowledge were significantly related to L2 writing motivation, performance, and strategy use. In addition, interview data demonstrated students' level of L2 writing self-efficacy, interest, and strategy uses. While the records from self-report data and interview data did not perfectly match, the two data sets were similar.

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By

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CHAPTER I

INTRODUCTION

Communicating through writing is a complex and demanding endeavor, even for those who are writing in their first language (L1) or about a familiar content field (Bialystok, 1978; Brown & Yule, 1983; Krashen, 1984; Makalela, 2004; Nunan, 1989; White, 1981). For students not writing in their L1 or about an unfamiliar content field, the task of communicating effectively in writing becomes particularly challenging (Tedick, 1990).

Second language (L2) students attempting to master writing in the second language understandably struggle due to their unfamiliarity both with the language of instruction (in this case, English) and with the subject matter (e.g., engineering, mathematics, or sociology; Burns, 2004; Griffin, 1983). The development of L2 writing is intertwined with the development of L1 and domain knowledge of the subject matter. In particular, L2 students are not habituated to using the L2 as their base for knowledge acquisition and learning. Learning about subject matter in L2 creates added complications for L2 students (Beckett, Gonzalez, & Schwartz, 2004) due to an additional process for translating the knowledge acquired in L2 into L1.

English writing is one of the basic skills that college students in the U.S., including L2 students, must acquire from public education to attain career and academic achievements (Budig, 2006). Strong writing skill often indicates qualification of the students who seek to build professional careers. Further, in modern academic settings, writing is more than a simple tool to express oneself. Rather, it is an “indispensable tool for learning...and the major means by which students demonstrate their knowledge”

(Graham, 2006, p. 457). Through writing, students grasp subject matter, and organize and refine their ideas while they deepen their subject knowledge. Writing quality is often used as an evaluative tool to measure competence in an academic setting. Therefore, learning how to properly express ideas through writing is critical in achieving college students' educational goals. Considering their professional and academic needs, many L2 college students in the U.S. are seeking educational services to improve their writing skills tailored to their career goals and academic purposes (Kim, 2009).

A dramatic increase in the number of English L2 college students, especially seeking further education in the U.S. (U.S. Government Accountability Office, 2007), has intensified the need for effective L2 writing classes (Kargbo & Yeager, 2007).

Specifically, the number of Korean college students in the U.S. is gradually increasing: statistics from both the U.S. and Korean governments have ranked Korea as the top country that sends students to U.S. colleges for further education (Choi, 2008). Despite Korean students' prominent enrollments in U.S. colleges, there is a large gap between these students' writing abilities and the writing standards set for entry-level college students in the U.S. (Rhan, 2008). Further, systematic support for writing development either in English or in Korean is relatively limited for Korean students in Korea. The acquisition of writing skills has not drawn public attention in Korea since public school curricula, and national exams do not include writing as a mandatory subject.

The Korean education system possibly places less emphasis on writing pedagogy both for English writing and Korean writing because of the exam-oriented environment in Korean schools (Kim, 2004). Schools as well as individuals in Korea are highly focused on exams, especially college entrance exam (Seth, 2002). This test-oriented educational

system may lead students to ignore subjects that are not tested on those exams such as writing. The core English test in Korea, Korean Scholastic Aptitude Test (KSAT), assesses students' writing abilities through a multiple choice-type of test items but not through actual writing performance tasks. Further, it has been reported that test items for English writing occupy an extremely small portion (e.g., 2.6%) of high-school English exams (Ko, 2007). Although several high-ranked Korean universities test students' L1 writing ability, this writing test is often less prioritized because it is taken after the more critical nation-wide exam, KSAT. In addition, even on these University exams, English writing is not assessed. Korean students are likely to value only the subjects that are included in the KSAT (Kim, 2009), and only a few universities adopt writing evaluations on entrance exam. Thus, Korean students do not give any serious attention to studying how to write in the English language (Kim, 2004) or even in Korean language. As a result, Korean people show a deficiency in expressing themselves in written English (KICE, 2002) when they enter college.

This problem has been discussed in some research, but the literature is still not sufficient to provide an empirical and theoretical ground on which to base better L2 writing education for Korean students. A few papers have discussed challenges to Korean students' mastery of English due to differences in linguistic roots, phonetic systems, and syntax between the two languages (Cho, 2004) and sociocultural gaps between the two countries (de Guzman, Albela, Neito, Ferrer, & Santos, 2006). Therefore, Korean students who come to U.S. to obtain a better education often experience maladjustment to U.S. education (Rhee, 2006), such as misunderstanding class climate and failing to find how and when to effectively express their thoughts in and

out of class. The specific difficulties that Korean students encounter when writing in English need to be further elaborated into empirical research as Korean-student-specific L2 writing development has to be further examined in the literature.

Although it is not Korean-specific, one can find a considerable amount of research either on L1 writing or L2 English writing. Specifically, teachers, students, and policymakers are concerned with students' L2 writing performances (Cumming, 2009). In particular, pedagogical activities aimed at creating better writing have been popular in both the L2 and L1 writing instruction (Silva & Leki, 2004). For example, researchers addressed empirical questions and pedagogical concerns in L2 writing, such as whether there are specific strategies that can promote students' writing (Raimes, 1991) and whether teachers' revisions are more helpful than revisions from peers (Yang, Badger, & Yu, 2006). Studies of L2 writing have primarily focused on exploring the relation between pedagogical activities and positive outcomes, with little consideration of the changing contributions of the cognitive and motivational characteristics of students to the improvements they manifest in their L2 writing while enrolled in an L2 writing course.

The selection of learner variables to be considered in this study was particularly informed by the Model of Domain Learning, in which the interrelations between knowledge, interest, and strategies are seen as underlying the stages and phases of performance in any academic domain, including writing. Moreover, the predictions made about participants' demonstrated or self-reported domain knowledge, interest, and strategies and their L2 writing performance at three time points were informed by the MDL, as will be discussed further in the literature review and in the methodology.

The participants of the current study were Korean college students who little or no formal instruction in L2 writing classes prior to the current data collection. Thus, these students were presumed to be in “acclimation,” the initial stage in domain development according to the MDL. For that reason, the participants were expected to demonstrate low domain or topic knowledge, report low individual interest, and rely primarily on surface level strategies at the beginning of the study. However, if the participants were to evidence academic development in their L2 writing as a consequence of the formal coursework in this area, they were expected to manifest significant transformations in these characteristics by the conclusion of the semester. Particularly, students’ domain and topic knowledge and their individual interest levels and use of relevant strategies were anticipated to increase over time.

Moreover, the aforementioned learner characteristics were predicted to show positive interrelations as participants move forward in their academic development. This prediction has been somewhat discussed in prior research, where students’ initial goals appeared related to kinds of strategy use, writing performance (He, 2005) and writing expertise (Leki, 2007). Prior linguistic knowledge was also reported as a predictor of L2 writing performance (Chenoweth & Hayes, 2001).

Statement of the Problem

A recent exploratory study on L2 Korean college students (Chae, Alexander, & Fox, 2010) investigated critical factors in L2 writing development. An in-depth examination from the learner’s perspective, by embedding a researcher in a writing course, showed that the development of L2 student writing was dynamically associated with various dimensions and kinds of learning variables. For instance, increased

grammatical knowledge led students to simplify text production and constrained idea generations, and varied learning goals impacted their interests toward writing topics. Moreover, the quality of the variables and associations among the variables seemed fluid even over a short period of time (i.e., one semester): the students often reset their goals, sought efficient strategies, and showed growth in their writing performance.

Moreover, past research on L2 writing has not sufficiently captured changes that might occur over time. Looking back to Chae et al.'s study (2009), it appeared that L2 college students' performance considerably changed over one semester. As Alexander, Schallert, and Reynolds (2008) argued, "a fundamental characteristic of what it means for humans to learn is that *change* happens" (p. 5). Thus, time can be an essential element for a researcher who conducts research regarding learning. The time issue has added salience in the field of L2 writing pedagogy because students and instructors are anxious to know what promotes writing development.

Thus, one suggestion for further investigations of educational phenomenon is for studies to show how learners change over time, by observing learning factors at multiple times and interpreting the dynamics of the learning variables that might change through interacting with one another. However, findings from recent L2 writing investigations are either descriptive or limited to capturing static learning variables at a single time point. For example, even a study (Montgomery & Baker, 2007) that incorporated multiple time points was limited to summarizing students' errors found in multiple drafts of writing and reporting teacher feedback on the drafts to show students' development in L2 writing over time. The results of the study relied on the average number of certain types of feedback and teachers' and students' perception of the feedback. Lack of consideration

was given to the influence of teacher feedback on students' performance, compared to other competing variables, and to the developmental nature of such a relation between the focal factor (in this case, teacher feedback) and L2 writing competency. There needs to be further discussions how influence of the focal factor(s) on L2 writing performance change over the period of L2 writing development. Answering these questions would have implications for the teaching and learning of L2 writing.

Another issue is sample size. While a number of studies employing large sample sizes have been found (Lee, 2005; Reynolds, 2005), a considerable number of studies in L2 writing still rely on a small number of participants. For instance, one study provided an in-depth description of a student's use of a word "although" (Spycher, 2007) by tracking their writing drafts over time. This in-depth study was successful in showing the specific process of word usage development, but the study overgeneralized the result to a larger population. This problem is amplified when small sample sizes pervade the majority of the L2 writing literature (Chae et al., 2010). Limited time sampling (i.e. assessing students at only one or two time points) also restricts the generalizability of study findings. Studies with small samples or single time points are limited in their ability to describe changes in a particular situation or group of people. Limits in sampling and data collection at multiple time points interfere with determining whether changes, development, or achievement are truly attributable to the designated program or to learner attributes.

Purposes of the Study

The current study is an effort to explore how Korean college students' knowledge, interest, self-efficacy, and strategies influence their L2 writing performance while

enrolled in an L2 writing course. In order to incorporate the dynamic features of L2 writing development as predicted by the MDL, the current study seeks to answer questions about student variables and relations between these variables. The variables include Korean college students' prior knowledge, motivation (i.e., interest and self-efficacy), strategies, and L2 writing performance. Research questions for the current study are:

1. To what extent and in what manner do Korean college students' initial self-efficacy and interest contribute to L2 writing performance changes over time?
2. How are Korean college students' interest and self-efficacy at the beginning (Time 1) and at the conclusion (Time 3) of an L2 writing course related to L2 writing performance and self-reported strategies at these specific time points?
3. How is Korean college students' prior L2 writing knowledge associated with their L2 writing motivation, self-reported strategy use, and writing performance?

Figure 1 is a conceptual model of research question 1, how initial motivation would be related to L2 writing performance over time. The motivation constructs include self-efficacy and interest in this particular model. This model assumes self-efficacy and interest contribute to shaping certain patterns of writing performance at three time points.

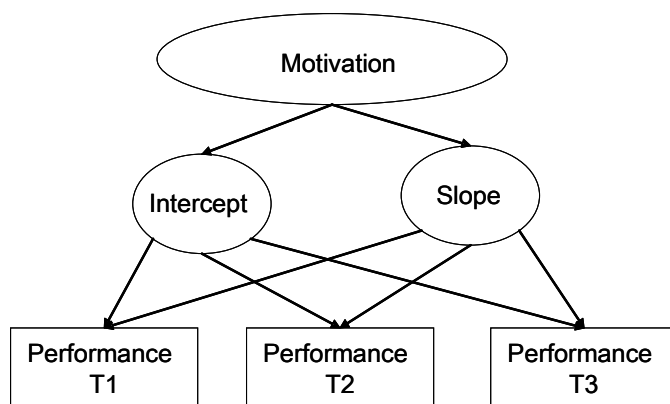


Figure 1. A Growth Curve Model of Impact of Initial Motivation to L2 Writing Performance at Three Time Points

Definitions of Terms

In order to discuss and answer the aforementioned research questions, the following constructs must be broadly defined. The conceptual definitions of the terms were informed by the MDL.

Motivation is a broad concept that encompasses goals, interest, self-schema, and intrinsic and extrinsic motivation (Murphy & Alexander, 2000). In the MDL, interest is one of the three prime forces that characterize learners' academic development in a domain, such as L2 writing. In particular, the current study emphasizes students' interests, goals, and self-efficacy in L2 writing domain and the given writing topics that emerged as crucial from previous research (Chae, et al., 2009).

Interest refers to students' reported interest in writing topics and in the writing domain, such as whether they are interested in a given L2 writing topic and whether they enjoy taking their English L2 writing course and acquiring L2 writing skill as a subject. The MDL projected individual interest and situational interest as a part of the prime developmental forces. Of these constructs, individual interest was of concern in this study because I focused on what the participants were personally interested in for

improving their L2 writing skills rather than what environmental or personal settings piqued their attentions.

Goal refers to students' goals for learning grammatical and syntactic knowledge that were reported through part of the interest measure. In particular, instrumentative interest for this study entailed students' interest in learning grammatical and syntactic knowledge in L2 writing. This decision was made because a central purpose of the L2 writing courses used in the current study was to instruct students on how to write grammatically correct papers in structures acceptable to the standard English. Based on the structural similarity between the goals and the instrumentative interest measure in this study, findings related to instrumentative interest were used to address L2 writing goals and their relation to other L2 writing variables. In the MDL, goals are related to learners' intention, which reflect their interests in the domain and their identification with the domain. Specifically, "one's individual interests energize thoughts and actions in very goal-directed ways" (Alexander, 1998, p.222).

Self-efficacy refers to students' reported confidence about their writing skills. Pajares (2003) has provided two operational definitions: one is students' confidence that they possess "specific writing skills" (p.143) and the other is confidence to complete tasks such as describing the main character's feelings (p.143). Of these two definitions, the first were used to conceptualize self-efficacy in the present study because it is more explicit and allows for assessment of more specific writing skills.

Strategic processing refers to procedural knowledge that is reported by students' reflections on their writing process. Strategies were particularly viewed as critical in the MDL as they naturally link between knowledge and motivational forces

(Alexander, 1998, p.223). One commonly-used definition of strategic processing is “a particularized form of procedural knowledge purposefully invoked to overcome perceived deficits in understanding or to circumvent potential barriers to learning” (Weinstein & Mayer, 1986, p.15). Strategic knowledge “entails both (a) general cognitive strategies involved in the execution of an academic task (b) metacognitive strategies pertaining to the monitoring or regulation” (Murphy & Alexander, 2002). Although there is much overlap between L2 and L1 writing strategies, the present study used L2-specific writing strategies operationalized according to prior research on L2 writing strategy use (He, 2005). A list of L2 writing strategies that were found in He’s study constituted the items in the strategy measure. General categories of these strategies are planning, monitoring (or evaluating), revising, retrieving, and compensating. Further explanation of strategy use and the strategy measure may be found in Chapters 2 and 3.

Prior knowledge refers to prior L1 and L2 writing knowledge, a type of domain knowledge. Broadly speaking, knowledge is thought to consist of *domain knowledge*, “subjects' prior knowledge” that are oriented in a certain domain (i.e., writing), and *topic knowledge*, “information that subjects encounter in a particular text or task” (Alexander, 1992, p. 35). In the MDL, these two forms of subject-matter knowledge increase together and become indistinguishable as a learner approaches the higher level in a domain. L2 prior knowledge in the current study was close to domain knowledge of these two terms and specifically meant knowledge of syntax and grammar in L2 writing. Previous works (e.g., Ferris & Robert, 2001) reported that L2 writing students’ grammatical knowledge is a critical determinant of their successful understanding of L2 writing instruction. The L2

prior knowledge were operationalized by measuring students' ability to select a grammatically correct phrase and to detect errors in a sentence (Appendix D).

L1 writing prior knowledge in the current study was also indicated by students' self-reported confidence on their quality L1 writing production. L1 writing prior knowledge were assessed using L1 writing efficacy inventory and student's self-report about a good paper at Time 1 (Appendix G). Previous works have provided evidence that self-report measures for language experience are a valid measure of respondents' actual language proficiency (e.g., Marian, Blumenfeld, & Kaushanskaya, 2007). However, this prior work used a self-report of general language background. In the current study, I asked participants whether they were confident in their specific writing skills and strategies with a list of L1 writing self-efficacy items. The specification of participants' writing skills and strategy use provided more detailed information for L1 writing prior knowledge in association with L2 writing development.

L2 writing performance means "the production of text" (Leki, 2007, p. 234) as a response to provided topics. To many writing professionals, writing entails both the writing process and the result of the process. However, the term *L2 writing performance* was used in the current study to mean the writing product than the process. L2 writing performance calls for consideration here because, as Leki mentioned (2007), L2 students often clearly distinguish between the process and the writing itself, and even for the writing process, actual evaluation is given to writing performance in that the L2 writing performance may even be detectable than the writing process.

CHAPTER II

REVIEW OF RELEVANT LITERATURE

The major purpose of this chapter is to locate learner characteristics in a framework for L2 writing development, and to identify the gaps that need further investigations. The literature review constitutes of two major sections: learner characteristics and relevant linguistic assumptions, which are followed by several subsections. The learner characteristics section includes review of motivation (i.e., self-efficacy and interest), strategies, prior knowledge, and Korean students. In addition, this chapter presents studies on similarity between English L2 and L3 acquisitions and introduces arguments for and against commonality between L2 writing and L1 writing learning.

The literature review contributed to deciding the assessment levels of each variable and provided predictions pertinent to the variables. For instance, a special concern for changes in student L2 writing development led the present study to support learner characteristics at the individual level rather than at the social level (Rodby, 1999). Writing performance is related to strategies (He, 2005) and prior knowledge (Chenoweth & Hayes, 2001). Due to identical backgrounds of the target sample, Korean students, the current study assumes similarity between L2 and L3 development as being supported by the prior L2-L3 comparative studies (e.g., Archibald, Roy, Harmel, Jesney, Dewey, Moisik, & Lessard, 2006). Further, the current study explore contribution of L1 and L2 writing prior knowledge on L2 writing development, based on the diverse arguments on L1-L2 writing discrimination (Silva, 1993).

Each section begins by introducing characteristics of the relevant variables that emerged from preliminary investigations on the Korean students' L2 writing development (Chae, Alexander, & Magda, 2009; Chae, Fox, Alexander, & Alex, 2010), since a considerable portion of the present study was driven by these studies. Then, salient issues from the literature are discussed in terms of why the research questions are worth exploring and what kind of predictions can be drawn given the literature.

Search Process

A focused search of the empirical literature began by constructing search terms representative of the key variables. This process was especially applied in searching the literature for the major section of learner variables (motivation, strategy, and prior knowledge).

Motivation, as conceptually defined, integrates self-efficacy, academic goals, and students' interests in the given L2 writing course. Thus, the following key words were used in the search: *second language writing*, *L2 writing*, and *ESL writing*, with a combination of the terms *motivation*, *self-efficacy*, *goal*, or *interest*. Distribution of the papers with these search terms were highly skewed toward papers relevant to *goals* with few papers regarding *self-efficacy* and *interest*. Thus, I conducted an additional search process using extensive search terms, *L2* and *second language* with a combination of the terms *self-efficacy* or *interest*.

Strategic processing entails both general cognitive strategies pertaining to an academic task and metacognitive strategies related to monitoring and regulation. Strategies in the current study refer to strategies especially presented during their writing tasks rather than other concepts like learning strategies or rhetorical strategies. The terms

for strategies were *strategies, metacognition, self-regulation, or strategic processing* with a combination of *second language writing, L2 writing, and ESL writing*. Additionally, *prior knowledge* was searched in relation to second language writing, L2 writing, and ESL writing.

To obtain articles meeting the criteria, two approaches were followed. First, articles were searched for in major search engines (PsycINFO, Academic Search Premier, and ERIC) using the search terms such as *motivation* and *strategies* with the key words *second language writing, L2 writing, and ESL writing*. In this process, there were no additional constraints such as search field options (i.e., title or keyword) other than the given inclusion criteria. The second approach was a direct access to several leading journals in the L2 writing field via Internet. Those journals were *Journal of Second Language Writing, Language Learning, the Modern Language Journal, Second Language Research, TESOL Quarterly, Studies on Second Language Acquisition (SSLA), and Applied Psycholinguistics*. This search process was initiated by accessing and searching online sites of each journal using the key word *writing*.

Learner Characteristics

Motivation in L2 Writing

Scholarly interest in motivation relevant to L2 writing is still a relatively recent phenomenon, and studies still focus on practical considerations rather than structuring theoretical ground. Many studies were oriented toward pedagogical concerns such as evaluation of a particular L2 writing program that was designed to promote students' motivation (Lo & Hyland, 2007), investigation of teacher feedback efficient for L2 writing (Chandler, 2003; Hyland & Hyland, 2001), and role of writing tutor (Williams,

2004). A few studies investigated mechanisms in which various learning factors form students' positive motivations and subsequently affect their L2 writing performances.

In terms of learner characteristics, few studies treated motivation as an *individual* learner characteristic in L2 writing literature. Rather, the literature tended to report motivation as attached to social contexts. However, a considerable amount of literature supported self-efficacy and interest is an important confounder in general L2 acquisition and learning.

L2 writing motivation related to performance and knowledge level. At a general level, it is evidential that motivation is positively related to students' academic achievement (Linnenbrink & Pintrich, 2002). Particularly, self-efficacy (Bandura, 1997) has been known to be a prime factor enhancing students' academic performance (Linnenbrink & Pintrich, 2002) in various domains including science (Andrew, 1998), educational psychology (Phan, 2009) and language (Mills, Pajares & Herron, 2007). Efforts for relating interest to academic achievement also has a long history (Dewey, 1903; Kerschensteiner, 1922). There also have been discussions on interest in language acquisition (Gardner, 1988; Wenden, 1998). Results from empirical research in role of interest have indicated the positive effects of interest-based learning on academic achievement (Sorić & Palekčić, 2009).

L2 writing literature showed that L2 writers have personally distinct motivation from others and perceive learning goals and interests as very personal experiences. For instance, in the preliminary study by Chae et al. (2009, 2010), five Korean students indicated relatively clear personal learning goals while the students had a common burden to take the writing course as required by the school policy. A student stated that

he takes the class to improve his speaking skill, whereas another student set out to obtain a good grade in order to transfer to a four-year university. The students' interests and desires for learning English writing also differed widely from achieving an ability to express complex and argumentative ideas with a personal voice (e.g., a psychological essay or a political discussion) to learning how to simply illustrate perceived objects (e.g., snappy scripts on photos or observations).

These variant learning goals and interests do not seem simply attributable to their social situations: the participants in the study were relatively homogenous in terms of social and cultural environment (e.g., age, education, family background, and the country where they have grown up), but their motivation for learning did not seem to converge. Although impact from their social situation is inevitable, it seems necessary to have more powerful reasons to explain the individual variation of the learning motivation.

A discussion on L2 writing expertise development appears to provide one such possibility for explaining individuality in L2 writing motivation. Leki's (2007) study particularly showed types of goals are related to levels of L2 writing expertise. In other words, the study investigated what type of motivation appears more in what developmental stage. Adopting Ng and Bereiter's (1991) three-type-goal theory, Leki explained types of goals and their different impacts as a function of students' language level and individual learning context. According to Leki, there are three global types of learning goals: knowledge-building (type three), task-completion (type two), and instructional goals (type one). Of these three goals, knowledge-building goals most significantly contribute to facilitating learning but "tend to be less often elicited by educational tasks" (Leki, 2007, p.255).

Literature also documented that there is a variation in the types of goals that arise at each developmental stage over the learning process of L2 writing. For example, instructional goals often appeared when learners were at a lower level in their development, and knowledge-building goals were observed as students' expertise was built. Efforts to understand L2 writing by developmental stage was later echoed by Bereiter and Scardamalia (1993). According to this later study, expert L2 writers tend to accomplish a task for their own purposes rather than "superficial features of the task" (Leki, 2007, p. 256). As opposed to students' use of socially driven goals like task-completion (type two) and instructional goals (type one), personally-driven goals seem to work differently as a function of the students' expertise in L2 writing. For instance, L2 writers when they were novices tended to be motivated by what the teachers asked, but as they become an expert, they tended to focus on personal academic interest.

Notable is that Leki focused on goals as having their own values and weights depending on the developmental characteristics of each L2 writer. The studies in this model support personal motivation as being isolated from social motivation. Therefore, with this model, it seems hard to capture situational variation that might cause different motivational grounds in a larger context: this model does not answer what environmental factors, other than the given instructional and task goals, might make difference in students' motivation in L2 writing. However, the model clearly shows that there are qualitative variations, as well as quantitative changes, in goals depending on students' developmental stage in writing. The Leki's L2 writing motivation theory is useful to show what specific aspects of goals improve students' performance. However, these studies highlighted *goals* but not other motivational constructs such as *interest* or *efficacy*

belief; an important consideration for further study. Several questions in consideration of L2 writing development also remained: what the development of motivation looks like in relation to L2 writing achievement; what other factors confound the relation between motivation and L2 writing development.

Motivation related to strategies. As a good definition and the sources of motivation are set out, a next consideration would be figuring out how motivation is relevant to other learning factors. In learning, one of the possible products that follow changes in motivation would be changes in strategy uses. Depending on what learners target, their procedural knowledge for the “what to do” should manifest change. As seen in Chae et al.’s study (2009, 2010), the students’ strategies evolve from time to time as they update goals and interests. For instance, in Chae et al.’s (2009) study, the students valued long and good-looking essays (i.e., using complex sentences and difficult vocabularies) at the beginning of the semester, instead of making a solid writing structure regardless of topics and prompts. However, as they become aware of readers over the semester, they became effortful in making their essays clear and accurate rather than merely relying on simple sentences and easy words. As the students became engaged in learning over time, they were likely to use the dictionary and other resources more creatively and deliberately, such as looking into different word uses in various sentences and seeking synonyms and antonyms as well as surface meanings of the words.

A motivation-strategy connection pertaining to L2 writing has been addressed in a recent study (He, 2005). This investigation foregrounds the present study in that different learning goals shaped different types of strategies. Adapting the multiple goal theory by Ames and Archer (1988), He (2005) argued that learners hold two sides of goals: mastery

goals and performance goals, which have “varying degrees of impact of learning” (p. 412). By definition, a mastery goal is the ultimate purpose of completing a learning task to refine skills, accumulate knowledge, and attain a sense of mastery. Performance goals are defined by external purposes where learning is a means by which to achieve the performance goal.

To examine the relation between different goals and strategy uses, He divided thirty-eight Taiwanese English-major college seniors into two groups based on responses on a goal scale: one was the high-mastery-low-performance (HMLP) group, and the other was the low-mastery-high-performance (LMHP) group. The results of the study identified the HMLP group was more likely to use monitoring/evaluating, revising, and compensating strategies than the LMHP group. This suggests that different types of motivation result in differences in use of various L2 writing strategies.

To understand He’s study, it seems necessary to overview how mastery and performance goals were operationalized in the context of the classroom by Ames and Archer’s (1988) study, although that study was based on a different sample (i.e., junior and high school students) and classes (i.e., English, math, science, and social studies classes). In order to find a relation between students’ perceived emphasis on goals in class and their use of strategies, Ames and Archer used two distinct goals in terms of actual classroom parameters as shown in Table 1. Based on this operationalization, Ames and Archer developed a set of questions to assess these characteristics from the students’ perspective.

Examples of the 19 items constituting the mastery scale were: "The teacher makes sure I understand the work;" "The teacher pays attention to whether I am improving;"

"Students are given a chance to correct mistakes;" "The teacher wants us to try new things;" "Making mistakes is a part of learning;" and, "I work hard to learn." Examples of the 15 items from the Performance scale were: "Students want to know how others score on assignments;" "I really don't like to make mistakes;" "Only a few students can get top marks;" "I work hard to get a high grade;" and "Students feel bad when they do not do as well as others" (p.262).

Table 1

Achievement Goals Analysis of Classroom Climate

Climate dimensions	Mastery goal	Performance goal
Success defined as ...	Improvement, progress	High grades, high normative performance
Value placed on...	Effort/learning	Normatively high ability
Reasons for satisfaction....	Working hard, challenge	Doing better than others
Teacher oriented toward...	How students are learning	How students are performing
View of errors/mistakes...	Part of learning	Anxiety eliciting
Focus of attention...	Process of learning	Own performance relative to others'
Reasons for effort...	Learning something new	High grades, performing better than others
Evaluation criteria...	Absolute, progress	Normative

Note. From "Achievement goals in the classroom: Students' learning strategies and motivation processes" by Ames, C., and Archer, J., 1988, *Journal of Educational Psychology*, 80(3), p. 261. Copyright 1988 by the American Psychological Association. Adapted with permission.

Students' learning strategies were subsequently measured regarding use of information processing, self-planning, and self-monitoring strategies. Ames and Archer's (1988) 15 measurement inventory items were selectively adapted from Learning and Study Strategy Inventory (Weinstein, Schulte, & Palmer, 1987). In addition to the Weinstein et al.'s original questionnaires, they assessed task challenge, attitude toward

class, causal attribution, and perceived ability. The major finding from Ames and Archer's (1988) study was that students who perceived mastery goals as salient in the classroom used more effective strategies.

Although the study focused on general L2 learning strategies rather than L2 writing strategies, Wong's (2005) study is worth noting here because it documented relation between L2 learning strategies and self-efficacy. In this explorative study regarding pre-service teachers' language learning strategies and language self-efficacy, Wong asked 74 ESL pre-service teachers in a Malaysian college to self-report language learning strategies and language self-efficacy beliefs in an inventory. Afterward, the participants were also called for an interview. For self-efficacy measure, Wong adopted Oxford's (1990) taxonomy of language learning strategies encompassing memory strategies, cognitive strategies, compensation strategies, cognitive strategies, affective strategies, and social strategies. For self-efficacy, the participants rated their confidence about carrying out the tasks correctly in a self-efficacy inventory. The study results indicated that high self-efficate pre-service teachers are likely to use more language learning strategies than their counter-parts. In particular, the overall participants most frequently used cognitive strategy, which were followed by social, meta-cognitive, memory, compensation, and affective strategy in order. A large difference was found between the confident participants and the low-confident participants' strategy uses.

Together with studies about L2 writing motivation from the previous section and Wong's study (2005), He's (2005) study leads to a conclusion regarding the relations among motivation, strategy, and writing performance. That is, motivation influences writing performance either directly or through use of varied strategies, and motivation

and strategies change with development of writing performance. Positive changes in motivation are, therefore, expected to influence uses of strategy and eventually facilitate L2 writing performance. However, research on this motivation-strategy-performance connection has not been attempted in L2 writing. This limitation intensifies the need for further investigation based on an expanded list of underlying motivational constructs that are duly conceptualized and operationalized.

Self-efficacy and interest related to L2 development. According to the broader search for L2 acquisition studies, *self-efficacy* and *interest* appeared to be one of the core contributors in language development. Numerous studies in L2 acquisition reported *self-efficacy* as a determinant for student's L2 development (Chularut & DeBacker, 2004) and English proficiency (Lin & Betz, 2009; Liu & Jackson, 2009), and topic *interest* appeared influential to text recall (Erçetin, 2010).

A recent empirical study (Chularut & DeBacker, 2004) reported students who have higher *self-efficacy* are likely to score good grades in TOEFL reading test. In this study, authors conducted a quasi-experimental examination on relation among concept mapping instruction, self-regulation, self-efficacy, and students' L2 reading achievement, on the basis of a well-known definition of self-efficacy, "personal beliefs concerning one's capability to learn or perform skills at designated levels." (Chularut & DeBacker, 2004, p. 251; Bandura, 1986; Bandura, 1989; Schunk, 1991). Chularut, and DeBacker's (2004) study was originally designed to figure out how concept mapping strategy affect 79 students in a general ESL class at two time points of a semester (i.e., the beginning and the end). On top of the main concern of the study (i.e., effect of the concept mapping instruction), time and students' English language proficiency appeared significantly

related to students' self-efficacy. This indicates that students' self-efficacy was increased over time and as their English language developed. Interestingly, concept-mapping instruction confounded these changes: The differences in gains over time between the concept mapping group and its counter-part were greater for the higher English proficiency group than the lower English proficiency group. This suggests that the concept mapping instruction impacted on proficient students' English language development more than that of non-proficient students.

Although they did not use the exact term, *self-efficacy*, Liu and Jackson's study (2009) is also worth receiving an attention in the current study as the major measurement instrument of the study, the Unwillingness-to-Communicate Scale (UCS) included items pertaining to self-efficacy such as "I am afraid to speak up in conversation" and "I feel nervous when I have to speak to others." (p. 72). Liu and Jackson collected responses from 547 freshmen enrolled in an ESL class of a university in Beijing. The participants were classified into three groups in terms of their language proficiency, and the relation between their proficiency levels and UCS responses were examined. The overall message from the study suggested that proficient language learners seem more self-efficacy and are more willing to communicate with other class members than less proficient students.

Lin and Betz's study (2009) have also showed significant impact of self-efficacy on ESL development. The researchers asked 203 non-U.S. citizen Chinese and Taiwanese international students in U.S. to respond to the Scale of Perceived Social Self-Efficacy (PSSE; Smith & Betz, 2000) and the Perceived Level of English Mastery (PLEM; Barratt & Huba, 1994) with two additional measures. One of the major findings from Lin and

Betz's (2009) study were that social self-efficacy in the English setting was significantly and positively related to English proficiency and length of residence in the United States. The Chinese international students' English proficiency and length of residence were all significant predictors of social self-efficacy that the participants might gain in interactions with others in English speaking environments.

Other factors pertaining to self-efficacy increment were also documented in various studies. The factors include students' anxiety (Cubukcu, 2008), attribution (Hsieh & Kang 2010), emotional intelligence (Dewaele, Petrides, & Furnham, 2008), specific language program (Eun, & Heining-Boynton, 2007; Amuzie, & Winke, 2009), and different types of video-viewing (Mills, Herron, & Cole, 2004).

With regard to interest, the extensive search process resulted in two L2 learning studies. The factors include gender (Kissau, 2006), prior knowledge, and text recall (Erçetin, 2010). Of them, Erçetin's (2010) study seems worth noting here, due to relevance of the interest and prior knowledge to the focal variables of the present study. From the investigation about proficient English learners' language development in a Turkish university, Erçetin (2010) found a significant relation between topic interest and text recall, but no meaningful association between topic interest and prior knowledge. That is, the students with higher topic interest recalled more propositions in the recall test. Further, a significant interaction between topic interest and prior knowledge was found in terms of types of annotations used in language learning. When topic interest was low, the participants with low prior knowledge utilized content-related annotations more frequently than those with high prior knowledge. On the other hand, when topic interest

was high, the participants with high prior knowledge accessed content-related annotations more frequently than those with low prior knowledge.

In sum, the previous studies on general L2 development illuminated importance of self-efficacy and interest. However, such illuminations have limitations to obtain pedagogical implications in L2 writing. Studies on self-efficacy and interest were conducted with regard to L2 reading (Chularut & DeBacker, 2004), text recalls (Erçetin, 2010), or verbal skills (Liu and Jackson, 2009). Few studies clearly describe in what way the enhanced self-efficacy and interest are related to students' L2 proficiency. Did students become spending more time in personal learning due to the emotional settlement and interest? Or did they actually used specific strategies more than before due to the obtained confidence or interest? Further, although a study indicated prior knowledge as a possible confounder for motivation-L2 learning relation (Erçetin, 2010), it is questionable if such association between motivation and L2 development may vary by time in consideration of other mitigating factors.

Strategic Processing in L2 Writing

Much discussion on L2 writing strategies like L2 writing motivation has been centered on pedagogical issues revealing how teachers' revision feedback (Knoblauch & Brannon, 2002), teacher-student conferences (Murray, 2002), and error corrections (Ferris, 2003; Elbow, 2002) affect L2 writing performance. Such pedagogical influences are beyond the scope of this investigation, since the current study basically aims to reveal students' writing process in relation to learner characteristics, writing topics, and writing environment, but not effective teaching methods.

Studies on L2 writing strategies are also yet undeveloped, and the discussions still represent largely various anecdotal information or summaries of fragile empirical study results. Nevertheless, reviewing L2 writing strategy studies is meaningful to obtain ideas for how to operationalize and code strategies in an L2 writing framework. In particular, the literature in this section was framed in terms of grain size that the researchers involved in investigating writing strategies. The review is expected to provide ideas of measurement and coding for strategies in the present study.

Interaction with text: sentences and paragraphs. A group of research has been focused on micro level analysis of students' strategic processing examining sentence or paragraph level composition strategies. Topics of these studies include variation by L1 backgrounds in uses of grammatical components (i.e., Korean versus English; Kang, 2005, 2006) and revision strategies depending on the students' past experiences and L2 skills (Yasuda, 2004).

Two studies using text product analyses showed Korean students' language background are related with Korean students' use of specific linguistic strategies (Kang, 2005, 2006). Using 42 Korean and 28 American college students, Kang (2006) analyzed students' written narrative in their clause levels using a coding scheme: a) length, b) structure, c) orientation (inclusion of setting and character information), d) appendage (indicators of beginning, conclusion, codas, and abstract), e) events and evaluation (writer's emotive information; e.g., "I was very scared"), and f) descriptive information. A major finding from the study was that Korean college students more often used event information and evaluative devices (category e) among the six strategies. On the other

hand, Americans heavily relied on orientation strategy. Kang suggested this difference might be a result of cultural transfer of their L1 narrative strategies.

While Kang's studies showed L2 students' narrative writing contrasts to that of English L1 students, a careful application of the results seems necessary for the current study. The concept of "strategies" in the studies does not identify the process of strategy uses in the students per se. Kang's analysis was based on functional components of the textual products as a *narrative means* but not *processes* of writing. Her concern was not what is going on in the writer's mind during the composing process such as how writers interact with the texts they are producing. Rather, she meant "strategies" as communication skills in a written format. The study, therefore, showed *what* the students produced, instead of presenting *how* the students' writings were created.

Another micro level strategy analysis done by Yasuda (2004) seems more promising than Kang's study, since Yasuda's study figured out students' perceived revision acts in a natural setting. To do that, he investigated three Japanese post-graduate students' revision strategies based on various data sources including students' diary entries, collection of the student's drafts, and semi-structured interviews. The strategies were analyzed in terms of different revision types presented in the students' revision drafts. With coding in six categories of revision strategies that are a) addition, b) deletion, c) substitution, d) permutation, e) distribution, and f) consolidation, the study described students' variant uses of strategy. Of note is the variation in strategy use was oriented from their past experiences such as their L1 writing education and practice experiences and less relevant to the student's language proficiency and their literacy skills. A student with fluent English speaking skill does not necessarily show the same writing strategies,

especially in revision, as other English learners at the same fluency level. This implies the importance of constructing individualized curriculum reflecting each student's different L1 experience, rather than establishing one unified curriculum merely based on their general L2 skills.

Focusing on process: various writing behaviors. Many studies have focused on the process of writing at the middle level: neither too specific as dealing with sentences or paragraphs nor too generic as dealing with meta-level or social strategies. Studies in the middle level have concentrated on finding prevalent strategy types in relation to other learning factors such as writing performance (Ojima, 2006), types of goals (He, 2005), L1 and L2 backgrounds (Keck, 2006), and L2 proficiency (Bloch, 2007). In particular, a few studies focused on a particular type of strategy in fostering L2 writing (Keck, 2006; Ojima, 2006; Storch, 2009). The strategies that have drawn particular attention of the researchers include pre-task planning (Ojima, 2006), sourcing (Storch, 2009), paraphrasing (Keck, 2006), monitoring, revising, and compensating (He, 2005). Of them, one study (He, 2005) explored all the possible strategies that were observed during L2 writing and their relevance to participant's different goals.

In constructing a strategy measure, He's (2005) study seems worth noting to foreground the present study because it provided exploratory findings about possible L2 writing strategies instead of investigating the effect of a single strategy on L2 writing performance. He summarized a Taxonomy of Composition Strategies for L2 writing, which emerged during data collection using participant's stimulated recall data, think-aloud, and observed behaviors (see Table 2).

He attempted to ensure that each identified behavior and strategy was based on clear and legitimate operational definitions that had been well justified by empirical evidence through both the students' verbal testimonies and their behaviors. For more systematic investigation, five steps were especially employed in collecting data: a) transcribing stimulated recall; b) defining composing behaviors including reviewing, editing, proofreading, planning, retrieving, and miscellaneous behaviors; c) coding think-aloud protocols into behaviors; d) matching behaviors into strategies; and e) categorizing strategy.

Table 2

Taxonomy of Composition Strategies

Type of Strategy	Strategy
A. Planning	<ol style="list-style-type: none"> 1. Organizing prior to writing 2. Reasoning messages deductively prior to writing 3. Reasoning messages inductively prior to writing 4. Identifying/planning for audience prior to writing
B. Monitoring/Evaluation	<ol style="list-style-type: none"> 1. Self-monitoring for planning 2. Self-monitoring for organizing 3. Self-monitoring for meaning 4. Self-monitoring by questions 5. Self-evaluating by commenting
C. Revising	<ol style="list-style-type: none"> 1. Revising messages for spelling 2. Revising messages for grammar 3. Revising messages for punctuation 4. Revising messages for ideas/thoughts
D. Retrieving	<ol style="list-style-type: none"> 1. Linking with memorized propositions by associations 2. Linking with memorized vocabulary or expressions by associations 3. Using background knowledge to construct messages
E. Compensating	<ol style="list-style-type: none"> 1. Consulting outside resources 2. Translating thoughts into English 3. Using synonyms 4. Adjusting/Approximating messages

Note. From "Effects of mastery and performance goals on the composition strategy use of adult EFL writers." by He, T-H., 2005, *The Canadian Modern Language Review*, 61, p. 421. Copyright 2005 the Canadian Modern Language Review. Adapted with permission.

The findings from this strategy measure with surveys on mastery goals and performance goals identified that high mastery low performance goal oriented students tend to more frequently use monitoring, revising, and compensating strategies than its counterpart.

Meanwhile, a standard strategy inventory has been used in many L2 studies regardless of various communication forms including listening, speaking, reading, and writing (Grainger, 2005). The Strategy Inventory for Language Learning (SILL; Oxford, 1990) version 5.1 that Grainger introduced in his examination of 23 Japanese undergraduate students' writing was originally designed to measure strategies for comprehensive English L2 skills, including all the four parts of listening, speaking, reading, and writing. The inventory was designed based on a 5-point Likert type scale, where one is the lowest use and five is the highest use. Cronbach's alpha of this instrument has been reported between 0.93 and 0.98 (Ehrman & Oxford, 1995) indicating a "good scale." Grainger (2005) found 13 strategies out of the original 80 items pertain to L2 writing, where the heading numbers correspond to the original item numbers in the SILL:

1. Creating associations
2. Putting a new word in a sentence
3. Placing a new word in a group
9. Listing all the words related and drawing lines to show relationships
11. Using flashcards
16. Writing new experiences repeatedly
19. Revising what is written

- 28. Writing personal notes, messages, letters, reports
- 32. Taking notes in class
- 33. Making summaries of new language material
- 35. Finding the meaning of the word by dividing the word into parts
- 46. Finding different ways to express what I cannot say when writing
- 70. Keeping a private diary

In a descriptive study with 23 Japanese students, Grainger identified strategies that were frequently observed in L2 writing and reading with average scores of the student responses. Of the 13 strategies related to writing, two strategies (i.e., item 32 and 46) fell in high frequent uses ranging average score 3.5 to 4.5, eight strategies (i.e., item 1, 35, 3, 28, 19, 2, 16, and 33) were found in medium level ranging 2.5 to 3.4, and three strategies (i.e., item 11, 9, and 70) were used at low or very low level scoring 1.0 to 2.4 on average.

Regardless of its wide usage and strong reliability, the SILL should cautiously be applied to L2 writing study because the instrument was originally designed for measuring generic L2 learning strategies, not specific to L2 *writing* strategy. Although Grainger (2005) attempted to identify the “writing” portion of the inventory, this investigation is yet descriptive and provides invalid implication to L2 writing with small sample size and limited nationality of the respondents that were used for the survey. Grainger’s identification seems even more problematic in applying it to L2 writing development because the writing strategies identified in the study were originally strategies using some types of writing (e.g., note taking and journal writing) for fostering general L2 language skills rather than enhancing L2 writing skill itself. In other words, SILL was

constructed based on a categorization of four different language skills in light of strategies, but did not specify how to develop L2 writing skills.

Maintenance of difficulty: coping strategies and self-regulatory strategies.

Studies examined writers' coping strategies with writing difficulties (Okamura, 2006), negotiation skills with target communities (Li, 2006), and self-regulatory strategies (Cumming, 1994). For instance, Okamura (2006) conducted a study about the relation between L2 levels and coping strategies. In his study with interviews with 13 Japanese researchers from three different L2 levels: junior-level, middle-level, and established-level L2 researchers, the researchers identified audience differently depending on their writing level: Established-level researchers were more likely to talk about their target readers and describe strategies for drawing the readers' attention during the interviews. For example, the established-level researchers mentioned citation of other researchers' work is good to make readers pay attention to their writing more carefully. Okamura concluded identification of the readership is an indicator discriminating between lower-level researchers and higher-level researchers.

To examine coping strategy with community members as a way of developing L2 writing, Li (2006) performed an in-depth observation of a Chinese computer science doctoral student's use of strategies in his publication procedure. The study collected the participant's writing products, review letters, and email exchanges with the academic community members over a two-year period. In post hoc interviews following the collection of written records, Li reported selecting a hot topic in the focal community was apparently an optimal strategy for this novice writer who seeks to enter the target community: Writing about an acceptable topic seems much easier for the students to

produce publications than persuading the community members with a challenging unfamiliar topic. It has been found that the novice L2 writers frequently attempted to model published articles, which resulted in plagiarism. The author called for incorporation of such negotiation skills in regular L2 writing curricula, which mostly lacks in the current L2 writing curricula.

Examination of a strong relation between writing expertise and writers' recognition of critical points in their compositions is traced back to an earlier study (Cumming, 1994). Cumming (1994) investigated decision-making behaviors of 23 L2 students in Canada, based on a five-category coding system including language use, discourse organization, gist, intentions, and procedures for writing. The study revealed that expert writers tend to compose with clear notions of how to best express the given topics in language. Expert writers' implicit and explicit writing in reference to well-formed scripts, rhetorical plans, or goal-directed planning helped their decision-making. Ease and confidence of the expert writers for reaching major decisions about the gist and organization of their compositions subsequently gave the writers more chance to attend to micro-level monitoring such as wording and phrasing.

Thus, appropriate and confident identification of readership and an understanding of discourse community seem salient in high performers, according to the previous L2 writing studies. Expert writers tended to better cope with their target readers in the academic community and regulated their works by themselves better than novice writers. Yet, it is not clear to what extent recognition of readership and an understanding of discourse community facilitated writing performance. The research was based on observations of communication behaviors for high performing writers (i.e., expert

writers) and low performing writers (i.e., novice writers). Still questionable is how much awareness of one's readers contributes to improving L2 writing or development of other factors related to L2 writing.

In sum, studies regarding L2 writing strategies in this section were organized by grain-sizes for measuring the strategies. These suggested levels of organization, however, should not be restrictive in that strategies at different levels are often intertwined with each other in actual L2 writing situations. For instance, importance of sentence-level language issues is often overweighed in novice students' expectations, and this preoccupied expectation about sentence has been reported as bothering low performers moving on to the next level (i.e., development of ideas and structures in a full paper; Campbell, 1998). Consequently, it seems necessary to seek more holistic understanding of L2 writing strategies encompassing the various levels of L2 writing strategies for better understanding of its impact on L2 writing performance.

Prior Knowledge in L2 Writing

As appeared in anecdotal data in Chae et al.'s (2009) study, students' prior knowledge and previous learning experience both negatively and positively predicted their writing behaviors, depending on the accuracy of the knowledge that the students possessed. An in-depth look into the participants' behaviors during the writing process suggested that the students still relied on and borrowed from the knowledge they acquired academically, although they often claimed the education from their home country was useless. Especially, they most often referred to knowledge of grammar such as use of pronouns, propositions, and conjunctions. Their lack of prior knowledge and experience with L2 writing or even L1 writing, however, was very apparent in this group of students,

which resulted in much difficulty in composing even a simple sentence. Numerous papers have discussed the impact of prior knowledge in various domains. The discussions suggest that knowledge is associated not only with the performance but also with motivation (Miller-Wietecha, 2002), idea construction strategy (Afflerbach, 1990), and decision-making strategies (Betsch, Brinkmann, Fiedler, & Breining, 1999).

In order to better understand the potential contribution of distinct types of knowledge pertinent to L2 writing, if any, it seems essential to clarify how the knowledge construct can be conceptualized. McCutchen's (1986) discussion of L1 writing knowledge, while it is not specific to L2, may provide a base for understanding the L2 writing knowledge construct. From a psycholinguistic analysis of the development of writing skill, McCutchen (1986) decomposed writing knowledge into three general parts: problem-solving plans, content, and discourse components. Problem-solving in writing is a type of procedural knowledge about how to understand given writing tasks and produce texts, which is also known as strategic knowledge. The content component is domain knowledge pertinent to the writer's topic. The discourse component includes knowledge about text and linguistic structures, such as vocabulary knowledge, orthography of the language, syntactic knowledge and grammar, which is the focus of most L2 writing classes and research.

With special consideration for L2 writing, a few researchers have attempted to identify predictive value of types of knowledge or students' experience toward L2 writing development (Ferris & Roberts, 2001; Schoonen et al., 2003). Arguments from these studies diverged based on whether or not writers' prior knowledge and experience contribute to writing fluency and proficiency. Problems remained in adopting and

applying the findings to discussing prior knowledge in L2 writing due to the target sample (Schoonen et al., 2003) and inconsistent conclusions (Ferris & Roberts, 2001). Meanwhile, Chenoweth and Hayes's (2001) study opened a possibility for relating writers' experience to writing performance, as will be considered later in this discussion.

Schoonen et al. (2003) have tried to clarify what constitutes L2 writing knowledge and how the identified component of L2 writing knowledge predicts writing proficiency. After a series of literature reviews, they identified kinds of writing knowledge as being categorized into seven components: metacognitive knowledge, vocabulary knowledge, grammatical knowledge, orthographic knowledge, lexical retrieval, sentence building, and L1 writing proficiency. The major finding of the study, with analysis based on structural equation modeling for 281 eighth grade Dutch students' writing, was that grammatical knowledge and orthographic knowledge have significant effects on English L2 writing proficiency. Interestingly, the model indicated lexical knowledge, a measure of accessibility of knowledge, has a negative contribution toward L2 writing proficiency. In other words, how fast the L2 writers retrieve their knowledge made no difference in their proficiency. Also, the results of their final model suggested that students' L1 writing proficiency strongly predicts their L2 writing proficiency. However, a caution in using this finding is that Dutch language has the same language root with English. The positive study results on the relation between the two types of L1 knowledge (i.e., grammatical knowledge and orthographic knowledge) and L2 proficiency from these Dutch students do not guarantee the same positive relation in other language groups. To ensure L1-L2 transfer of these types of knowledge, further investigation seems necessary for languages from various roots.

Ferris and Roberts's (2001) study also provided mixed findings about the effect of prior knowledge on L2 writing. Regarding grammar knowledge, they examined 86 international college students' error correction behaviors in the U.S. The analysis, using a grammar knowledge pretest, indicated little relation between pretest scores and the errors actually made by students in their texts. However, this result should be carefully interpreted since the students' overall pretest scores were low with little deviation. Put another way, it is still inconclusive from this study whether the writing errors were attributable to students' lack of prior knowledge on grammar or not: the reported weak relation may not correctly reflect the true relation between the pretest and the errors due to low statistical power of the pretest measure. In addition, findings from their follow-up self-editing exercise indicated formal knowledge was a significant factor.

Although direct measures on prior knowledge were not made, and despite the fact that the language of concern was English L2, Chenoweth and Hayes's (2001) study also seems worth mentioning here since the researchers showed how L2 students' prior education experience made a difference in L2 writing proficiency. The study was based on analysis of think-aloud protocols with native speakers of English who enrolled in French or German writing classes. Major findings of the study demonstrated that two or three semesters difference in L2 instruction made a difference in L2 writing fluency.

In order to interpret the study results, Chenoweth and Hayes adapted Kaufer, Hayes, & Flower's (1986) model of written language production (see Figure 2). This model explains the writing process as three levels: a resource level, a process level, and a control level. Of these, the process level appears worth noting since it provides particular connections between prior knowledge and composition process.

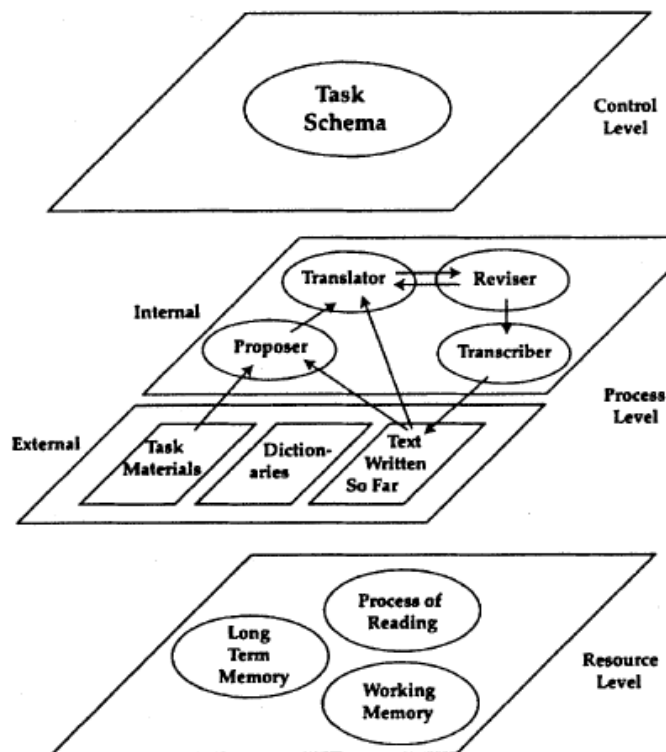


Figure 2. A Model of Written Language Production. From "Fluency in writing: Generating text in L1 and L2," by Chenoweth, N. and Hayes, J., 2001, *Written Communication*, 18, p. 84. Copyright 2001 Sage Publication. Reprinted with permission.

The process level is divided into internal processes and the external environment of the internal processes. According to Chenoweth and Hayes, "the translator in internal processes converts the prelinguistic ideas into strings of language with appropriate word order and grammar" (p. 84) and mediates the effect of linguistic experience on written fluency. That is, linguistic experience will make changes to the translator, which will be subsequently reflected in increases in fluency. Further, linguistic experience differentiates revising resources. Lack of language experience will lead to more cognitive effort for translation, which will have more chance to generate ungrammatical or otherwise inappropriate strings. Writers with little language experience are, therefore, more likely to revise, which will slow production.

In sum, the previous literature about the impact of prior knowledge and experience on L2 writing is inconclusive: L1 knowledge was relevant to L2 writing; grammar knowledge has little relation with errors in L2 writing. Meanwhile, a study based on model of written language production (Chenoweth & Hayes, 2001) offered a theoretical explanation for the demonstrated effects of years of writing instruction on L2 writing products. That is, in L2 writing, those who were more experienced with the target language outperformed those who were less experienced due to greater fluency and less effort for translation and revision. Empirical evidence in support of the roles and effects of prior knowledge and experience needs to be further examined in L2 writing development.

Korean Students and L2 Learning

Research on unique characteristics of Korean English-L2 students' is still undeveloped. Although a number of studies exclusively used Korean sample to examine L2 learning, such as prompting conditions for picture based narrative tasks (Park, 2010) and relation between language learning strategies and English proficiency (Park, 1997), these studies did not intentionally seek to identify unique characteristics of Korean students. Only a few publications have discussed general backgrounds and common difficulties of learning English that are observed in Korean students (Cho, 2004; de Guzman et al., 2006; O'Donnell, 2006). However, even the studies of Korean students' characteristics in English learning context were not supported by sufficient empirical evidences. Investigations of Korean students' attitudes, motivation, and learning approaches at a general level have more prevalent than in relation to English-specific learning contexts.

Cho (2004) offered a rough summary of Korean students' difficulties with regard to English language acquisition that attribute such difficulties to linguistic differences and cultural differences in Korean students. First, different language roots between Korean and English interfere in development of Korean students' English language learning. English belongs to the Indo-European Language Group, whereas Korean is Ural- Altaic Language Family (Cho, 2004). These different roots distinguish Korean from English in phonetics, consonants, vowels, stresses, and syntax. For instance, as opposed to the orthography of Korean language in which a Korean alphabet matches a sound unit, an English alphabet is pronounced in several different sounds. All Korean consonants are voiceless but English has both voiceless and voiced sound. There are groups of consonants and vowels that are not present in Korean but in English, and vice versa. The Korean language sounds "monotonic," whereas stresses or rhythms are prominent in pronouncing English words and sentences. In terms of syntax, an English sentence is subject-verb-object order, but Korean is subject-object-verb. Thus, to write an English sentence, Korean students face the additional complication of changing the order of words in a sentence. Other syntactic differences such as positions of adverb use, tense forms, and relative clauses also produce difficulties in English acquisition for Korean students.

In cultural and social stances, Korean students also have obstacles in adjusting to English language learning contexts. Compared to American students, Korean students are likely to express themselves in general and indirect ways and value collectivism over autonomy (Chung & Gale, 2006). They often show group or family-oriented ways of thinking, using word such as "we" or "they" more frequently than that of "I" or "he" or

“she.” Their behaviors look passive and unconfident in language learning context: avoiding eye contacts, using low tone of voice that indicates respect rather than confidence, and being afraid of making mistakes (Cho, 2004). The top-down relationship between students and teachers shows how Confucianism prevails in Korean society: teachers’ presentations are more valued than students’ asking and discussion (O’Donnell, 2006). This high degree of teacher decision authority has been reported as resulting in students’ dissatisfaction with class (Park, Lee, Yun, & Kim, 2009).

The Confucianism in Korean society also determines Korean’s parenting style. They extremely value their children’s education. It is a common phenomenon that Korean parents move around to find an educationally better living environment for their children and overly invest children’s education. As a result, Korean students have high extrinsic motivation (Lee, Kang, & Yum, 2005). Thus, they seek to achieve high social and educational goals to satisfy their parents’ expectations. In older and adult students, future and career plan, grades, and competition are the strongest stressor factors (Lee, Kang, & Yum, 2005). Indeed, this high extrinsic motivation pervading in Korean society results in many negative side effects. However, the reliance on extrinsic motivation seems clearly to be a driving force for high achievement of Koreans (Gao, 2009). Interestingly, regardless of such motivational pressures from outside, Koreans are likely to view success or failure of the achievement attribute to their personal control than outside factors (high locus of control; Park & Kim, 1998).

Relevant Linguistic Characteristics

Similar Development of English L2 and English L3

The current study is constructed upon a wide range of supporting discussions toward similarities between English acquisition as a second language (L2) and a third language (L3; see Chapter 3). Prior to introducing theoretical and empirical evidences for this argument, it should be noted that the entire sample in the current study, either English L2 learners or English L3 learners, were taught by instructors using very similar teaching methods. Further, these participants have been grown up with very similar educational backgrounds in Korea. This reality, as well as plurilingual acquisition theory, enriches the base of the current study. That is, the sample includes those who report English as either L2 or L3, as it is hard to find discrepancy between L2 English learners and L3 English learners in Korean students.

Most comparative research on L2 and L3 acquisition has been established in European psycholinguists. This trend is quite natural because multiple language acquisition is a common phenomenon in Europe, where many countries sit border to border, and people are often pressured to acquire other languages to communicate with people in these neighborhood countries. A general argument of this multi-language research is that there is a *commonality* in L2 and L3 acquisition. A group of European researchers have established a metalingual theory, that argues M-factor (Metalinguistic dimension) commonly contributes to any language acquisition regardless of L1, L2, L3, and even L4 (Bono & Strailaki, 2009).

Essentially, this theory proposes a general factor that is transferrable across languages and governs learning strategies in acquiring any language. For instance, Bono

and Strailaki (2009), in interview analyses with students speaking French, English, German, and Spanish (L1 through L4), concluded institution (i.e., school curricular) plays important roles in encouraging learners to deploy strategies associated with plurilinguistic competence, such as “code-switching in verbal interaction or the reliance on cross-linguistic clues in the learning process” (p. 222).

Subsequent investigations focusing on L2-L3 translation have supported the M-factor effect. For example, in a case study for bilingual individuals with trilingual aphasia, Goral, Levy, and Kastl (2010) examined how treatment for English L2 focusing on morphosyntactic elements, such as pronoun gender agreement, impact the non-treated languages (i.e., Hebrew L1 and French L3). The major finding suggested the treatment, which was focused on remedy of L2 competence, fostered morphosyntactic skills in French L3 (non-treated) as well as English L2 (treated) but not Hebrew L1 (non-treated). In accordance with this result, the authors concluded that there was more cross-language generalization of treatment benefits between English L2 and French L3 than between English L2 and Hebrew L1. Although it was not a major argument of the study, it appears that linguistic similarity of English and French was a contributor for translation of the treatment between two languages.

Another investigation on translation among different languages was conducted by Kujalowicz and Zajdler (2009). In this study, native speakers of Polish adults participated in an experiment that asked them to produce L1 (Polish) and L2 (English) translations verbally in response to L3 (Chinese) stimulus words visually presented on a computer screen. Translation latencies were recorded for each case. This examination was based on a hypothesis of a “common conceptual store” among L1, L2, and L3, which

interferes or mediates translation. Thus, the translation latencies for translation from L3 into L1 or into L2 vary by “the discrepancy between and the strength of connection between the conceptual store and L1 and L2 lexical representations” (p. 92). A major finding of the study was translation from L3 was faster into L1 than into L2. The authors concluded stronger connection between Polish L1 and English L2 than between Polish L1 and Chinese L3 resulted in more interference in translation. Similar evidence supporting existence of an interlanguage transfer activator was found in Wei’s recent study (2006).

The aforementioned three studies (i.e., Goral et al., 2010; Kujalowicz & Zajdler, 2009; Wei, 2006) converge into a conclusion: there exists a common factor (or M-factor) that governs, fosters, or interferes trilingual acquisition. Closeness between languages seems important to activate the M-factor since the designated treatment or the translation speed was greatly impacted by similarity of L2 or L3 with L1.

There seems to be another factor that contributes to cross-language transfer. A group of researchers (Archibald, Roy, Harmel, Jesney, Dewey, Moisik, & Lessard, 2006) argued teaching method is critical for the transfer process. For instance, students who learn English as an L2 may benefit from L3 learning, depending on the model of instruction. They especially suggested Content-based Language Teaching (CBLT) as a good method of delivering an L2 instruction to students, and both content and language skills can be acquired using a range of instructional options.

Meanwhile, there exists an argument for difference between L2 and L3 acquisition, refuting M-factor theory. Brown (2009) argued against a L2 learning process similar to L3, by reporting unique characteristics of those who take less commonly taught language (LCTL) class (i.e., L3) distinct from those who take commonly taught language

(CTL: i.e., L2) class: LCTL learners were older, expected higher grades, reported higher grades, found their courses more difficult, and had studied the L3 at a much higher rate. However, this does not confirm different learning mechanisms between L2 and L3. Rather, this study shows how participants' motivational and background orientations differ in these two languages. In other words, the differences between L2 learning and L3, if any, were not ascribed to linguistic or cognitive differences between L2 and L3 learning, but to differences between learner who were willing to learn second language and those who were willing to learn additional language (L3) on top of the L2.

Also, there is an argument that L3 is not another case of L2 acquisition, based on the fact that the transfer from L2 to L3 is more prominent than from L1 to L3 (Bardel & Falk, 2007; Leung, 2005). As an evidence of this argument, Bardel and Falk (2007) showed more significant syntactic transfer from L2 to L3 exists than does from L1. Leung (2005) found partial transfer of L1 in the L3 initial state as opposed to full transfer of L1 in the L2 initial state. However, study designs of this body of research are inadequate to support L3 acquisition as an independent set of acquisition processes from L2 acquisition. Bardel and Falk only focused on transfer in syntactic components of the languages. Other components such as word uses should additionally be counted to confirm the argument. Likewise, in Leung's (2005) study, there could be other factors for the distinct transfer levels between L1-L2 and L1-L3, because the study involved a comparison of two groups with different language backgrounds (i.e., Cantonese-English bilingual group and Vietnamese monolingual group). The L3 group, because they were bilingual, might have had a successful experience for acquiring L2, which might subsequently impact success in L3 acquisition.

In sum, the overall message from the literature is that there exists a common underlying proficiency that transcends across various language levels, L2, L3, or even L1. However, none of the studies were performed in relation to L2 writing. A few studies pointed out language acquisition, either L2 or L3, as greatly affected by linguistic closeness of the languages (i.e., L2 or L3) to L1 and teaching strategy to be used. Thus, how different or similar L2 acquisition is from or with L3 acquisition can depend on its linguistic and instructional similarity to L1 learning. In the current study, the participants' L2 or L3 were English but not any other languages, and the participants are taught with almost the identical teaching method. Therefore, no special discrimination was forwarded to those who reported English as L2 and to those who reported English as L3 of the sample.

Relation between L2 Writing and L1 Writing

The goal of literature review in this section is to summarize discussions about L1-L2 writing association, and answer the question of in what manner L1 writing influences L2 writing or vice versa. L1 acquisition always precedes L2 learning, and L1 writing plays a role as a type of prior knowledge and experience in L2 writing development. Thus, L1 understandably either interferes with or facilitates L2 writing development (Chenoweth & Hayes, 2001; Schoonen et al., 2003). As if reflecting such notions, early discussions and practices of L2 writing learning have been established following the L1 writing tradition (Silva & Leki, 2004). There has been no conceptual and theoretical discrimination between L1 and L2 writing in the early works.

Most publications of the comparative studies between L1 and L2 writing have been made for last two decades (Silva, 1993). To date, the comparative studies have

constantly increased. In the recent research tradition, many L2 writing studies aimed to provide efficient application method or to clarify interference between writing developments of L1 writing and L2 writing by identifying differences or similarities between the different languages. The study topics varied from different procedural behaviors for each language (e.g., Silva, 1990) to analysis of written text products (e.g., Cummings, 1990). Regardless of these endeavors, arguments for the distinct nature of L2 writing from L1 seem still inconclusive.

In the meantime, there was an effort to discriminate the nature of L2 writing from that of L1 writing (Silva, 1993). In this seminal paper, Silva argued that L1 writing appears similar to L2 writing at its broad level but significantly different upon closer look. To unravel such difference, the paper synthesized various empirical studies identifying the distinct nature of L2 writing from that of L1 writing. A collection of literature was categorized into two major trends based on types of evidence: subcomposing processes and written text features. Regarding composing processes, more difficulty and less efficiency in L2 writing was salient although L1 and L2 writing were similar to each other in terms of sequence of the composing processes such as planning, transcribing, and reviewing. Moreover, tendency of specific L2 composing behaviors also differed from that of L1. For instance, L2 writers tended to revise their written products focusing more on grammar than mechanics, in particular, spelling.

With regard to written text features, L2 writers used fewer words, produced more errors, and scored lower grades in writing than L1 writers. Difficulty and ineffectiveness of L2 writers were also significant when responding to essay exams and using background reading texts. In discourse level, L2 writers' textual patterns followed varied

“thought patterns” depending on the writers’ nationality and L1 background as described in Kaplan’s study (1966): exhibiting linear, parallel, indirect, and digressive patterns. The distinct patterns were found in expressing exposition, argumentation, and narration across various languages. L2 writers also showed less appropriate orientation of readers and distinct patterns in terms of semantic structures.

After Silva’s collective work (1993), publications for L1-L2 comparison have flourished. Most of the recent investigations on this topic have focused on the correlation between various features of L1 and L2 writing (Chen, 1999; Ito, 2004) in an effort to identify the effect of L1 writing experience on L2 writing performance that would be shown as either “interference between L1 and L2” or “application of L1 to L2” (Edelsky, 1982). In addition, there was a researcher who paid attention to impact of L1 on L2 writing learning through examining L1-L2 translation behaviors (Uzawa, 1996). Overall, these recent investigations suggest that L2 writing is distinct from L1 at a smaller grain, looking at aspects such as specific strategy uses (Keck, 2006) and language uses (Hinkel, 2004), but the two writings are related in terms of global proficiency (Ito, 2007) and expertise (Chen, 1999).

Silva’s observation on the studies from the 1980’s and early 1990’s was replicated in recent L2 writing research. According to the studies, general composing process patterns are similar and strong correlation was observed between L1 and L2 writing, but L2 writing is distinct from L1 writing with a closer look at strategy uses and language uses such as organization patterns (Hirose, 2003), uses of tenses, aspects and the passive voice (Hinkel, 2004), and paraphrasing types (Keck, 2006). For instance, in his empirical study based on analysis of L2 students’ text products, Hinkel (2004) reported that L2

writers had special difficulty in three English tenses (the present, the past, and the perfect), two aspects (the progressive and the perfect), and passive verb structures. In other words, L2 writers made more mistakes in such writing elements due to lack of habituation of the word uses. On the other hand, studies argued L2 writing development appears related to L1 writing development with some mixed findings. For instance, Manchón & de Larios (2007) found no difference in planning time between L1 and L2 writing, whereas Kobayashi & Rinnert (2008) found there were kinds of training that commonly or differently promoted L1 writing and L2 writing depending on cases, and Kenkel & Yates (2009) reported similarities in number and types of information management skills in L1 and L2 composition. Baker (2008) even further suggested that activities L1 and L2 writing used in the actual teaching or learning should eventually converge in the future based on the argument of similarity between L1 and L2.

With regard to potential pathways through which elements of L1 writing ability affect L2 writing, there are studies about transfer and translation of L1 writing into L2 writing (Uzawa, 1996; Wolfersberger, 2003). Uzawa (1996) examined 22 Japanese English L2 students' L1 writing, L2 writing, and L1-L2 translation behaviors using think-aloud protocols, observation, and interviews. According to the findings from participants' utterances, the students, when writing solely in L1 or L2, were likely to use similarly high metacognitive attentions. In contrast, when translating L2 into L1, they paid significantly more attention to language use. That is, participants tended to spend more time and efforts to find appropriate words and sentences when they translated than when they directly wrote in one language. In order to figure out the contributions of

translation in L2 writing, the authors also compared the participants' writing products in the L2 writing task with those in the L1-L2 translation task.

The results showed the Japanese students produced more “vivid” and “colorful” expression when translating L1 to L2 rather than when directly writing the essays in L2. Based on this observation, Uzawa concluded that the L1-L2 translation task positively influenced and may be useful for L2 writing performance at least to these Japanese students due to their constant awareness of language use. In addition to translation activity, L2 writing proficiency also has been suggested as a facilitating mediator in special relation to planning behavior (Manchón & de Larios, 2007). According to the finding, L2 proficiency was found to be a common predictor for planning time both in the L1 and the L2 tasks and the participants' coordination of goals as well as the range of constraints guiding their planning behavior. Thus, advanced L2 writers tended to spend relatively longer time to plan with clear goal settings and orientation during the planning both in L1 writing and L2 writing.

From these two translation studies, one can conclude metacognitive awareness is a critical element connecting L1 writing development to L2 writing development. That is, L2 writers are likely to apply or transfer their metacognitive skills that are acquired through L1, to L2 writing by doing L1-L2 translation. The application of L1 writing to L2 writing was observed successful in terms of searching expressions and words that are suitable to given writing tasks and situations.

In conclusion, literature over the past decades showed difficulty in clearly differentiating L2 writing development from L1 writing development. A simple discrimination of L1 and L2 writing seems insufficient to guarantee identity of L2 writing

research distinct from L1 writing. Regarding the possibility of L1-L2 transfer, it seems necessary to indicate what transcends L2 and L1 and how students' experiences in these two different languages influence their L2 writing development. A few studies suggested metacognitive awareness and planning in L1 writing transcends into L2 writing. However, insufficient evidence was provided as to whether there is a *composing competence* that transcends L2 and L1 differences (Sasaki & Hirose, 1996).

Research Gaps

The purpose of this review was to summarize and synthesize research on variables related to L2 writing development and to provide empirical supports to choice of the operational definitions of the variables and the assumptions used for the present study. The review was presented in two general sections: a) learner characteristics included motivation, strategies, prior knowledge, and discussion about Korean students, and b) relevant linguistic assumptions encompassed similar development of L2 and L3 and L1 writing-L2 writing difference.

For learner characteristics, L2 writing research was limited because of the narrow concepts of motivation and the lack of investigation on specific influence of strategy use and prior knowledge toward L2 writing performance. In the meantime, a research was conducted into relation between motivation and L2 writing strategy uses (He, 2005) and association of L2 proficiency with self-efficacy (Chularut & DeBacker, 2004) and interest (Erçetin, 2010). Overall findings from L2 writing strategy literature showed that use of strategies depend on L2 writers' expert level such that expert writers are likely to aware readers and to use more metacognitive strategies. However, the studies failed to show the extent to which each type of strategy affects L2 writing development. For

example, it is questionable to what degree evaluative strategy use contributes to improvement of L2 writing performance as opposed to other competing strategies such as reviewing and planning. Frameworks for understanding the effects of prior knowledge in L2 writing development were introduced with an empirical study. The study result indicated positive impact of prior L2 education acquired from public programs toward L2 writing performance (Chenoweth & Hayes, 2001). However, the study failed to reveal specific contributions of prior L2 education toward L2 writing performance.

Korean students' characteristics were discussed in a few L2 writing papers, but the studies were not sufficient to provide L2-writing-specific implications (Choi, 2008; Kargbo & Yeager, 2007), such as the common errors that Korean students make and learning characteristics typically mitigating L2 writing difficulty of Korean students as opposed to that of students from other countries (Cho, 2004; Lee, Kang, & Yum, 2005). Similarity of L2 and L3 acquisition seem to depend on how similar L2 and L3 are to L1, and which teaching method was used for each language. Because the current sample would have been taught in almost identical instructional methods and similar educational environments of Korea, English learning processes were assumed similarly whether English is participants' L2 or L3. Comparing the nature of L2 writing development with L1 writing development, prior studies offered contrastive suggestions depending on grain size of the measurement. Depending on grain size for observation, development of L1 writing seemed both distinctive (e.g., Hirose, 2003) and similar (e.g., Uzawa, 1996; Wolfersberger, 2003) with that of L2 writing. Further investigation of L1 effects on L2 learning seem necessary to receive attention in the current study because the study

involves various levels of measurement ranging from strategy uses to global performance levels in L2 writing.

A useful framework for investigating the relations among motivation, strategic processing, and prior knowledge in L2 writing development is the Model of Domain Learning (MDL; Alexander, 1997). In the MDL, learners are predicted to follow three developmental stages (i.e., acclimation, competence, and proficiency), where knowledge, interest, and strategies interact in a distinctive profile at each stage of development (Alexander, 1997, 1998, 2002). In the particular case of the current study, Korean college students were expected to demonstrate increments in knowledge, individual interest, and deep processing strategies as they approach proficiency in the domain of English L2 writing, whereas their surface processing strategies and situational interest would diminish over the course of development. The model also explains how learner characteristics and the relations among the variables change (i.e., knowledge, motivation, and strategies) in a long-term trajectory. However, regardless of the potential contribution to explain the dynamic interactions of the variables relevant to L2 writing, the MDL has never been used to investigate L2 writing. This study investigated and tested this model for L2 writing domain.

There were research gaps as well as findings for the relations among the knowledge, motivation, and strategies in L2 writing studies. As drawn in this literature review, it is apparent that the different motivational orientation shapes different kinds of writing strategy uses, which may subsequently affect writing products. In particular, He (2005) found those who were oriented in High-Mastery-Low-Performance goals tended to monitor, evaluate, revise, and compensated their L2 writing more often than the

students with Low-Mastery-High-Performance goals. Chenoweth and Hayes's investigation (2001) suggested that prior linguistic knowledge determines L2 writing performance. However, no studies have attempted to make connections among these variables based on a legitimate sample size and research design. The current study aims to overcome the drawbacks found in the literature by identifying how L2 writing in Korean college students develops in consideration of learners' performance, motivation, and strategy.

CHAPTER III

METHODOLOGY

This chapter is constituted of two large sections: a pilot study and the present study. In the first section, a pilot study conducted to identify required adjustment in measurement, administration, and interviews is described. In the next section, a research design of the current investigation is introduced in terms of sample, educational contexts, measures (i.e., Demographics and Educational Information, Prior Knowledge, Motivation, Strategies, Performance, Interviews), procedures, and data analysis plan.

Pilot Study

In order to see if the measures functioned effectively prior to conducting the present study, a pilot study was implemented. Through this pilot study I sought to achieve three goals. First, I wished to identify necessary adjustments to the measures in terms of item difficulty, item clarity, and measurement reliability. Second, I wanted to address administrative concerns, such as amount of time students would typically require to complete the measures and other procedural or administrative issues that might arise. Finally, I checked whether a selective subgroup composition is possible for interviews according to students' agreement.

Participants

Fifty-seven college students participated in the pilot study. The students were enrolled in an English writing class at a two-year college in South Korea. The participants majored in either Tourism or Business, and they were 20 years of age on average, ranging from 18 to 23 years old. Thirty-eight students (66.7%) were female, and 19 students (33.3%) were male. Only one student reported her birth country as Japan,

and her first language (L1) as Japanese. All other participants indicated they were born in Korea and that their L1 was Korean. For all participants, English was their second language (L2) or third language (L3).

Measures and Procedure

Participants in the pilot study provided written descriptions of either benefits or disadvantages for one of the two topics presented to groups. Specifically, the pilot study was conducted in only one session of the academic semester, whereas the actual study involved three spaced measurement sessions conducted over an entire semester. Regardless of this time limitation, the pilot results were expected to provide sufficiently meaningful information regarding characteristics of all the measures to be used in the present study.

The participants in the pilot study were divided into four groups based on the counterbalanced research design separated by the type of the performance task prompt they were presented. Students in the first group (N=15) were asked to write about benefits of wearing school uniforms in English (Topic 1-a in Appendix B). The second group (N=14) undertook a writing task about disadvantages of wearing school uniforms (Topic 1-b in Appendix B). Students in the third group (N=14) had to write about the benefits of living in the places having the same weather all year round (Topic 2-a in Appendix B). The fourth group (N=14) wrote about disadvantages of living in the places with consistent weather all year round (Topic 2-b in Appendix B). After completing the performance tasks, all of the students responded to motivation and strategy use measures.

Time for Administration

Participants took approximately 45 minutes to complete all the tasks and measures for the first session. The more time-consuming tasks were the prior knowledge measure and writing performance task. In particular, participants took a considerable amount of time in interpreting the writing prompt, which was composed of five English sentences. It was apparent that the writing prompt was overly long and confusing for the participants to understand. A common concern expressed by the students was that the knowledge measure was difficult and that they reverted to guessing. The participants' average prior knowledge score was 4.74 out of 15 total score (31.6%), suggesting very low prior knowledge.

Interview Availability

I initially intended to conduct follow-up interviews for evenly distributed subgroups of high performers and low performers in consideration of motivation levels. However, the selective interview administration turned out to be impossible due to students' low consent rates for the post-hoc interviews. Further, those who agreed to interviews were unevenly distributed in their performance levels. Only 27.66 percents of the participants ($N=13$) agreed to be interviewed. Those who agreed to be interviewed performed better ($M=1.87$) than their counterparts ($M=0.88$) in English writing, according to their performance task scores. Only a small portion of the participants in the actual data collection are expected to agree for the follow-up interviews.

Modifications to the Methodology

As a result of this pilot study, several adjustments in the prior knowledge measure were suggested. For one, it seemed necessary to lower item difficulty of the prior

knowledge measure. The 15-point prior knowledge test was found too difficult for the participants as indicated by a low average score ($M=4.74$) with a small deviation ($SD=2.36$). Prior knowledge scores the students obtained ranged from 1 to 11. The participants frequently voiced difficulties with the vocabulary used in the questions and the sentence structures used in the knowledge test. For example, the students were unfamiliar with word “enduring” used in item 3 in Part I. Also, most items used in the prior knowledge measure were based on a complex sentence structure, which requires higher level of English comprehension skills. Thus, I further simplified the questions by cutting out or simplifying the vocabulary in items and by making the options easier, as presented in Appendix D.

Performance task prompts also required simplification and clarification. The task direction seemed too long and confusing for participants because it included both sides of the arguments (see Appendix B). For instance, students in group C were presented with the prompt: “Some people prefer to live in places that have the same weather all year round. Others like to live in areas where the weather changes several times a year. Discuss the *benefits* of living in places with consistent weather all year round. Use specific reasons and examples to support your answer.” This long prompt apparently misled the L2 college students to respond in unintended ways. For instance, students made the common mistake of reading the prompt as “benefits of living in areas where the *weather changes* several times a year” instead of as, “benefits of living in the places with *consistent weather* all year round.”

Moreover, the participants took a relatively long time to read and interpret the writing prompts. Some participants spent the entire session translating the English

prompt into Korean and did not have time to start writing about the topic. Consequently, their writing was very limited in quantity and rather shallow, and their English writing scores were very low with a small deviation ($M=1.1$, $SD=1.04$). The students also produced a small number of words ($M = 28.07$, $SD = 31.18$), sentences ($M = 2.42$, $SD = 2.15$), and meaning units ($M = 4.94$, $SD = 5.34$) in the performance task. It was decided to ask students to write a descriptive essay with shorter version of the writing prompts (see Appendix B). A Korean translation was additionally necessary to aid the students' understanding of the writing prompts.

In addition to adjustments in the vocabulary and the sentence levels for the writing prompts, the writing genre was changed from persuasive writing to descriptive writing to make the task easier and more in line with the central research question. In particular, likely due to the high level of writing skill needed for persuasive writing coupled with the lack of exposure to persuasive writing, most students produced non-persuasive responses and, thus, scored low in their writing performance. According to pilot study, students often responded as "I do not know" or provided non-responses for the performance task. Such a type of non-responses was common and hindered the measurement of these students' actual writing. The initially offered performance measure in the pilot study seemed excessively difficult for these students, which could have contributed to a floor effect in performance. Thus, an adjustment of difficulty level for the performance task was deemed necessary to obtain an appropriate measurement of the students' writing development in this study.

Adjustment in the performance task measure led to change in the research design as well. The pilot study involved one persuasive writing session at the beginning for four

groups of the students. Students in each group were required to write about each of the two topics with one side of competing arguments (i.e., benefits *or* disadvantages). The design for the pilot study can be illustrated in the following manner. Each group got a different set of writing prompt at this time.

Group A: benefits of Topic 1 (school uniform policy)

Group B: disadvantages of Topic 1

Group C: benefits of Topic 2 (living in a place with consistent weather)

Group D: disadvantages of Topic 2

In contrast, it was decided that the actual study should encompass three sessions of descriptive writing at three time points during an academic term. Participants would be required to consider both sides of the stated issue (i.e., benefits *and* disadvantages). According to pilot study results, no significant difference was found between students' performance score ($t = 0.84, p = 0.42$), the number of words ($t = 0.13, p = 0.90$), the number of sentences ($t = -0.50, p = 0.62$), and the number of meaning units ($t = 0.51, p = 0.61$) between Topic 1 and Topic 2. Comparability of the topics was forwarded to the actual study, and differing topics seems to be no major confounder for this particular group of students. For performance task, all the students were asked to write about both benefits and drawbacks regarding Topic 1, Topic 2, and Topic 3 at each time point. In other words, students wrote about Topic 1 at Time 1, Topic 2 at Time 2, and Topic 3 at Time 3, respectively.

Among demographic information items, a question about prior writing classes posed during the pilot required clarification. The participants did not clearly discriminate a writing class from a general language class both for Korean language and English

language. For example, although public English language curriculum in Korea is known to have no English writing classes, many students counted *general* English language classes as an English *writing* class. Students who answered that they took English writing classes in Korean for more than ten years (N=12), unexpectedly, occupied a relatively large portion (20%) of the sample, as opposed to those who reported less than or equal to one year (N=19). More than one third of the participants (N=22) did not answer the question about an English writing class. A similar trend was found for the question about Korean writing classes. This indicates that discrimination between a writing class and a general language class was hard for these students. Consequently, it was decided to include questions about general language classes but not about classes that focus on writing (see Appendix A).

The self-efficacy, interest, and strategy measures administered in the pilot appeared to function effectively with a few non-responses. Cronbach alpha for interest measure was 0.76, suggesting acceptable reliability. Reliability of strategy use measure was 0.93, and self-efficacy was 0.95, which indicates high internal consistency among the items. With regard to missing data, one student omitted a response for self-efficacy item 2. Three students provided non-responses for interest item 2. There were missing data for one participant for interest item 5 and 7, respectively. One participant failed to respond to strategy use item 1 through 17. These missing data were not counted when computing Cronbach alpha reliability index. Because of the adequate or high reliabilities and the low missing data rates for these measures, it seemed appropriate to use the motivation and strategy use measures in the actual study as they were initially constructed.

Regarding Interview, only a quarter of students agreed with their participation, I decided to include smaller number of subsample size ($N=15$) than the initially designed sample size ($N=30$) for the follow-up interview. This subsample was not balanced by participants' motivation levels nor by their performance levels.

Method

In this section, the actual sample and their educational contexts are described. In addition, the measures of demographic information, prior knowledge, motivation, strategy use, and writing performance, and the follow-up interviews that were used in this study are explained. Finally, the procedures that were followed in conducting this study, as well as plans for data analysis, are overviewed.

Participants

Two hundreds forty five ($N=245$) Korean college students were involved in one or more sessions of the data collection. The final longitudinal data set was composed of 187 students responded both at Time 1 and at Time 3. Students' responses at the beginning and at the end were considered critical in discerning changes of academic activities. One hundred seventy eight ($N=178$) students responded at all of the three sessions. Nine participants' non-responses at Time 2 and students' non-responses occasionally occurred in the longitudinal dataset ($N=187$) were replaced with randomly selected similar records using hot-deck imputation technique (Iacus, 2011). Similarity of the records was determined by referring to all the variables other than the variable corresponding to the non-responses (which mostly occurred at Time 2) in the dataset. Those additional variables included motivation constructs at Time 1 and Time 3, performance at Time 1 and Time 3, and strategies at Time 1 and Time 3. By so doing, the final longitudinal

dataset looked complete without missing data.

The sample Korean college students were enrolled in three colleges in the Seoul metropolitan region, all taking a course created to assist L2 students meet the writing requirements of their academic and professional lives (i.e., Fundamental Writing Class). There were three Chinese first language speakers, one Japanese first language speaker among the participants in the final dataset for longitudinal investigation. All of the students were invited and agreed to take part in this study. No special incentives were provided to the participants except the students taught by instructor J, who announced her students' participation in the study will be counted as 10 credit scores out of the 100-point complete score.

Table 3

Data Composition by School, Instructor, Gender, Age, and Education (N=245)

School	Instructor		N (%)
I	M		90 (36.73%)
	L		30 (12.24%)
S	J		75 (30.61%)
Y	A		22 (8.98%)
	B		28 (11.43%)
Category	Subcategory	Max.	N(%) / M(SD)
Gender	Male		110 (44.67%)
	Female		135 (55.33%)
Age	Age	30	20.33 (2.31)
Education	L1 Language Education (Yrs.)	30	14.11 (2.97)
	L2 EEK (Yrs.)	17	9.4 (2.45)
	L2 EEE (Yrs.)	3.75	0.04 (0.33)

Note. EEK=English Education at Korea. EEE=English Education in English-speaking Country.

Prior to the data collection, the researcher collected information on the students' backgrounds and education. As seen in Table 3, 110 (44.67%) students were male, and

135 (55.33%) students were female. On average, the participants took L1 classes (i.e., Korean, Chinese, or Japanese) for 14 years and L2 classes either in Korea or in other non-English speaking countries for 9 years. All of the participants held high-school diplomas.

There were both theoretical and practical reasons for the selection of only Korean students as participants in the current study. The theoretical reason is the lack of literature on Korean students' unique experiences learning English writing, despite the many Korean college students striving to master English writing. Increase of Korean students in the United States was discussed in Chapters 1 and 2. Despite the increase, only a few studies have provided a general discussion about Korean students' difficulties in English language learning (Cho, 2004) or learning in English-speaking countries (de Guzman, Albela, Neito, Ferrer, and Santos, 2006). However, these studies did not address Korean students' individual characteristics, such as prior knowledge or motivation, particularly as they relate to the L2 writing domain. From a more practical standpoint, Korean students are the focus of this research because despite the increasing needs from Korean students for English writing education, researchers have systematically overlooked the needs of these students. Korean students often underachieve English L2 writing due to their inattention to English writing (KICE, 2002). This is because the Korean English-testing system does not require students to be prepared with English writing until they enter college.

Methodologically, using Korean students allows for more thorough data to be collected for the current study because the author is also of Korean origin: this permits a consideration of class content and structure in light of a common cultural heritage shared by participants and the researcher. The benefits of researcher/participant shared language

and culture is evidenced in Chae et al.'s study (2009). When the participants were free to talk in their first language, the expression of ideas or feelings was minimally constrained by language.

Based on the demanding needs from education and students, the Korean participants were purposefully sampled, but participation was not restricted by gender, age, or social status. Rather, students were asked to report demographic information, and student responses and behaviors were interpreted with consideration for their backgrounds in the current study.

Participants were from Korean colleges in the Seoul metropolitan region, where most of the Korean colleges are located. This way, the sample were representative of Korean college students. The participating students were studying English as a non-native language (not L1). There were no discrimination between English second language (L2) learners and third language (L3) learners because it is hard to capture the difference between L2 and L3 development. The participants in the present study have learned English either as L2 or as L3 in almost identical educational environment experiencing similar distance from the L1 (Korean) as discussed in Chapter 2.

In terms of developmental level, the participants are expected to be novice writers. The participants were freshmen or sophomore, as most of the L2 writing courses are offered to the lower grades in Korean colleges. Their motivational and cognitive status are possibly different from those of advanced writers. Particularly, learners at this acclimation level show low-level individual interest, less frequent uses of deep processing strategies, and knowledge about topic and domain (Alexander, 1998). In the meantime, the acclimating learners' situational interest and surface strategies are salient.

These learner characteristics gradually change as they move onto competence and proficiency levels with interactions among the learner characteristics. However, the students' writing in the study did not sufficiently develop to the competence or to the proficiency level because the data collection was conducted for only one semester.

The desired sample size was decided based on the sampling guidelines for multiple regression and Structural Equation Modeling (SEM), the procedures which were used to analyze the data in this study. According to Kline (2005), a sample size that exceeds 200 participants has been considered "large" when using multiple regression and SEM. However, it should be noted that this criterion is not absolute: the necessary sample size when using SEM may be affected by many factors (Muthén & Muthén, 2000).

Study participation was voluntary, and consent forms for all students were collected. The consent forms constitute agreement to participate in measurements of writing performance, knowledge, motivation, and strategy. Not all students were interviewed. Of those who agree to participate, approximately 15 interviewees were called for recall process for students' strategic processing regarding writing produced at Time 1 and at Time 3, and their L2 writing self-efficacy and interest.

In terms of the data structure, three schools and 11 classes with five instructors were involved in this data collection. The composition of the data by school and instructor is presented in Table 4. It seems meaningful to describe instructors' characteristics which might affect the Korean college students' L2 writing development. The first instructor (M) was a native U.S. English speaker who has been residing and working in Korea as an English language instructor in a Korean university for

approximately ten years. Of the participants, 90 (36.73%) students were taught by him. The second instructor (L) was a Chinese female who held Ph D. degree in English literature from a university in a West coast region of U.S. Her first language was Chinese, but she was triple lingual speaking both English and Korean language as well as Chinese language. Thirty (12.24%) participants were taught by her. Remaining three instructors were (J, A and B) Korean females who held master's degree or doctoral degree in English language and literature or English education from a university in Korea. The Korean instructors have been raised and educated in Korea.

Educational Contexts

English language education in Korea. In South Korea, English is taught as a required subject over approximately ten years in primary and secondary schools. Typically students learn English from a Korean non-native English speaking teacher in a classroom setting. Since being better educated by entering a top university and being well educated is most highly valued and necessary for a social achievement in Korea, schools and individuals are extremely conscious of earning a good score on the Korean National College Entrance Exam, also called the Korean Scholastic Aptitude Test (KSAT). English is one of the core subjects tested on the exam along with Korean language and Mathematics.

English is a part of the regular school curriculum. Since 1997, English is typically taught one hour per week for third and fourth grade students and two hours per week for fifth- and sixth-grade students (Korea Ministry of Education, Science and Technology, 2008). In Korea, six years of primary school education are followed by three years of middle school and then three years of high school. The middle school

curriculum requires English to be taught for three hours per week, and the high school curriculum includes three to four hours of English education per week. However, most of the secondary school students, who prepare for college entrance, take additional English classes through afterschool, extracurricular, or private programs. These extra English classes as well as the in-school English curriculum focus on the skills needed to answer the KSAT questions, placing a large emphasis on reading and grammar. The grammar-translation method is the primary means of instruction used to prepare students for English examinations that focus almost exclusively on grammar. English learning is later emphasized in higher education as a basic requirement for all the college students. However, the English curriculum at the college level is more liberal than that of primary and secondary schools.

English writing courses in Korea. Korean students have almost no opportunity to take English writing classes until they enter college. The common curriculum for primary and secondary students does little to teach English writing as a part of English subject. Further, the Korean SAT does not include questions on speaking and writing, which leads students to devalue English writing. Even after students enter college, although English writing courses are offered in many colleges, English writing performance is not required in other classes including students' majors (e.g., biology, education, or business) than the English writing classes themselves. Learning L2 writing has not been a priority for many Korean students although the importance recently draws public attentions (Tyson, 2000). In general, Korean college students, who are educated in Korean colleges, lack experience in English writing instructions for other purposes than passing college requirements.

Measures

The current study used various measures: demographic, prior knowledge, self-efficacy, interest, strategy, and performance measures. These measures were provided to all of the participants in the first phase of the data collection. Additionally, a semi-structured interview were given to selection of the participants in the second phase of data collection.

Demographics and educational information. Students' demographic and educational background information was collected using a demographic measure. The instrument asked about participants' gender, age, country of origin, first language, and L1 and L2 education (see Appendix A). This demographic information and educational background information were useful in interpreting participants' responses to other study measures and the scripts that students express during follow-up interviews.

L2 writing prior knowledge. A grammar and structure test was used to measure students' prior knowledge of L2 writing. Grammar and sentence structure tests have been globally used as a predictor of writing achievement, although there still remain arguments against their relation to actual writing performances (Ferris & Roberts, 2001). The prior knowledge test consisted of 15 multiple-choice items. These items were modified versions of the actual TOEFL® grammar and structure testing items that have been released to the public. The format of these knowledge questions is identical to the original TOEFL® questions, but the specific sentences and words used in the test differed from those used in the actual TOEFL® test. The eight structure items asked students to choose an appropriate answer from the options to fill in the blank of the given sentence as presented in Part 1 (see Appendix D). The seven grammar items asked students to

choose a grammatically incorrect part in the given sentence as presented in Part 2. The answer for this test was in random order.

L2 writing motivation. To assess students' motivation, two measures were used (see Appendix E). To evaluate students' writing self-efficacy, the Writing Self-Efficacy Scale (WSES; Pajares, 2007; Pajares & Valiante, 1999) were adopted. The WSES consists of 10 questions asking students to "provide judgments of their confidence in their ability to successfully perform grammar, usage, composition, and mechanical writing skills, such as correctly punctuating a one-page passage or organizing sentences into a paragraph so as to clearly express a theme" (Pajares, 2007, p. 240). The original version of the WSES asks participants to fill in any number from 0 (*no chance*) to 100 (*completely certain*) corresponding to their confidence in their writing abilities. Instead of asking to fill-in the parenthesis, the current study asked students to mark their confidence in their successful writing performance on a 100-mm line (e.g., Schraw, Potenze, & Nebelsick-Gullet, 1993). This visualized scaling was expected to increase validity because it does not require students to transfer their cognitive judgments into numerical representations. Moreover, this fine-grained interval scale differentiates information of different response categories that can easily be nullified when using Likert type scales or any scales based on fewer steps. The 100-mm line scaling also keep student responses on this measure consistent with participants' responses on the other measures used in this study. The WSES has been explored in studying various writing contexts, gender, and age groups (Pajares, 2007), but mostly in the area of L1 compositions. The overall findings from these studies have demonstrated "acceptable" reliabilities for the measure ranging from .68 to .92.

Second, an interest measure assessed participants' interest with the given writing *topic* and writing as a *domain*, the writing *class* that they were enrolled in. Students were asked to indicate how interested they were in taking English writing class and performing English academic writing. Participants marked how strong of an interest they have in English writing. For all of the items in this measure, participants responded on a 100-mm line scale ranging from "strongly disagree," to "strongly agree."

L1 writing prior knowledge. To assess the students' prior knowledge of Korean L1 writing, self-efficacy measure and a question were used (Appendix G). These measures were almost identical with the L2 writing motivation measure described in the previous section except that the items were prefaced with the heading "When I write in Korean (or my first language)". Ten self-efficacy items from the WSES by Pajares (2007) were asked with a 100-mm line scaling.

L2 writing strategies. Participants' perceived writing strategies were measured with a strategy inventory. This inventory was created based on He's five categories of writing strategies. The five categories are planning, monitoring (or evaluation), revising, retrieving, and compensating. This list of strategy categories was explored in He's study (2005) on L2 writing strategy use triangulated by observing students' behaviors, think-aloud protocols, and recall interviews. Unlike He's original investigation, the current study asked participants to check strategy uses on established measurement items. This checklist type of instrument were beneficial that it allowed relatively easy recording of students' writing strategies. In order to explain writing strategies through recalls or interviews, the higher level of students' verbal skills were necessary. Students might be even unaware that the writing procedures they employed during the writing sessions are

in fact strategies. Record from observation is even demanding in terms of time and efforts, and further, participants' strategies are, in many cases, unobservable.

Eighteen items for the strategy measure were developed based on He's original strategy coding scheme, where five categories of writing strategies underlie the questions (see Table 2). In particular, items 1 through 3 correspond to planning; items 4 through 7 are about monitoring; items 8 through 11 address revising; items 12 through 14 concern retrieving; and items 15 through 18 are about compensating. The items were prefaced with the heading "When I wrote in English," and the participants rated each item by marking a slash on the same 100-mm line from "not very often" to "very often" as was used in earlier measures. A sample item on the strategy inventory asks how often, "I organize ideas prior to writing" (see Appendix F).

This measure of strategy uses followed the writing tasks and the motivation measures. Participants were supposed to answer the question with reflection of their strategy uses right after they performed the writing tasks. Participants responded to the strategy inventory looking back their motivation and writing strategies.

L2 writing performance. The present study employed three-wave writing performance assessments on three different writing topics. The writing topics used were drawn from sample writing topics given to students preparing for the *Test of English as a Foreign Language* (TOEFL® : ETS, 2009b). The topics were released to the public through the Educational Testing Service (ETS) website (see Appendix B), and the comparability of writing prompts have been reported even for groups with different language backgrounds (Lee, Breland, & Muraki, 2004). Thus, topic difference was expected to make no or minimal variation in the writing performance in the present study.

However, the three different topics instead of one identical topic over three time points were used to maintain students novel to the topics as it has been reported that familiarity with topics greatly affects L2 students' actual writing performance (Stapleton, 2001). Writing performance tasks were conducted early in the data collection process to prevent fatigue effect because it usually takes more time and efforts to complete writing performance task than other measures.

Over a semester, participants undertook three spaced writing tasks, which required them to describe both benefits and disadvantages at each time point for one of the three writing topics. Each of the three writing topics was provided to the students at each time point. The three topics include "school uniform policy"; "living in a place with the same weather all year around"; and "borrowing money from friends".

Students' essays were scored on a scale of 0 to 5. A scoring rubric for the TOEFL® writing test, developed by ETS, were used as the reference criterion (see Appendix C). For instance, five is a perfect score indicating, "an essay that accomplished all of the following: effectively addresses the topic and task; is well organized and well developed, using clearly appropriate explanations, exemplifications and/or details; displays unity, progression, and coherence; displays consistent facility in the use of language, demonstrating syntactic variety, appropriate word choice, and idiomaticity, though it may have minor lexical or grammatical errors" (ETS, 2009a).

Reliability of the scoring was checked by employing two coders on this performance task measure and comparing their agreements on essay scorings. An instructor, who taught three of the classes involved in this study, was trained by the investigator to score students' responses using the rubric. In training, the coding for

several sample responses was discussed and prototypes for each response category were discussed. When scoring the samples, we sometimes confronted difficult scoring distinction. In that case, we agreed to provide half point (0.5) in addition to the lower score. Once we felt confident about these response categories, the coder and myself independently scored 64 randomly-selected writing performance responses (approximately 10%). Intra Class Correlation (ICC) computed for interrater agreement for the selected 64 writing samples was 0.82. Due to this high agreement, the remaining responses were scored independently by myself.

Missing data imputation. I generated four datasets in total: three cross-sectional datasets for each time point and one longitudinal dataset constituted of those who responded both at Time 1 and at Time 3. Non-responses existed in all of these datasets due to students' add-ins, withdrawals, absence for each measurement session or random non-responses that were made by students' mistakes. The none-responses in the longitudinal dataset was imputed using Hot-deck imputation technique. Hot-deck imputation replaces missing data with values that show similar observations in other parts of participants' responses to the record with the missing value or values. In particular, R software (The R Foundation for Statistical Computing, 2010) was used to generate values to fill in the non-responses. The final longitudinal data, therefore, looked complete in all the items and variables because of the replacement performed in the imputation step.

Interviews. A set of post-hoc interviews in the second phase followed the first phase of data collection for measuring knowledge, motivation, strategy, and performance. The purpose of this interview was to triangulate measurement results obtained from self-report inventories for strategy uses, interest, and self-efficacy. A subset of the entire

participants (N=15) was involved in the second phase. The subgroup interviewed were selected based on students' agreement on the interview. After completing the quantitative measures at the first phase over the course of semester, interviewees, who agreed to be interviewed, were called for a one-on-one phone interview. The interviews were audio-recorded and later transcribed by an assistant.

During the semi-structured interview sessions, participants were asked to look back and verbally report their writing processes for producing essays at Time 1 and at Time 3. Looking back on their own writing samples, the participants recalled and reported their writing activities. As presented in the interview protocol (see Appendix H), the guiding questions used for the interviews was like "Can you describe the process of how you wrote these essays step by step?" In order to stimulate interviewees' recalls, the interviewer provided an example of the recall process by verbally presenting "I first read the writing prompt and then took a minute to think what that means. I reread the prompt. I wrote down key words relevant to the question. I wrote down 'school uniform policy is good because it saves money.'"

The coding scheme for the stimulated recall data was based on He's (2005) *Taxonomy of Composition Strategies* (see Table 2). The analysis of these strategy recall data highlighted patterns of strategic processes and what was measured differently from results from other inventory. The sequence of strategy uses and its relevance to the sample characteristics were described in the analysis section that follows.

In addition, participants verbally indicated to what degree they were interested and confident in English writing. To stimulate students' discussions on the L2 writing development, the interviewer used an interview protocol (see Appendix H). The

participants were permitted to freely answer to the open-ended questions. Participant's verbal reports also provided an in-depth interpretation of the L2 writing learner characteristics that was not captured from the structured inventories and triangulated measurement of the variables.

Procedures

The study involved three spaced cohort data collections based on a time series design. A time line for quantitative data collections and a follow-up interview is presented in Table 4.

Data were collected from approximately 11 sections of English L2 writing courses, with five instructors' permissions, from March 2011 through July 2011. Demographic and educational background information and prior knowledge measures were collected only at the beginning of the semester. Performance task was administered, asking students to write about "school uniform policy" at Time 1, "living in a place with consistent weather" at Time 2, and "borrowing money from a friend" at Time 3.

Students' motivation (Appendix E) was assessed at Time 1 and Time 3. Strategy uses (Appendix F) were measured with an identical inventory over all the three time points. Time points for data collection were staggered approximately 1.5 months apart. These measures were designed to assess learner variables for all participants in the first phase. After the quantitative data collection was completed at Time 3, a follow-up interview was conducted with a subgroup of the participants. The interviewee was stimulated to recall their strategic processing during the English writing task and to answer open-ended questions about their strategy uses, motivation, and reasons for their

evaluation on the motivation. The one-on-one phone interviews lasted approximately 20-minutes in length.

Table 4

L2 Writing Measures and Interview Administration at Three Time Points

	<i>Time 1</i>	<i>Time 2</i>	<i>Time 3</i>
Demographics	X		
Performance	X	X	X
Prior Knowledge	X		
Motivation	X		X
Strategies	X	X	X
Post-hoc Interview			X

Data Analysis

The data analysis strategy is presented for each research question. The design of the current study involves the use of both quantitative measurement through the structured inventories (Appendices A through G) and analysis for interviews (Appendix H).

Prior to the analysis, descriptive statistics for all the variables were compiled to inform changing patterns of L2 writing motivation, strategy use, and writing performance. The purposes of these documentations were to inform basic characteristics of the dataset and check if there are outliers and major data distortion to be further cleaned.

1. To what extent and in what manner do Korean college students' initial self-efficacy and interest contribute to L2 writing performance changes over time?

To answer this question, latent growth curve models were run using EQS v 6.1 (Bentler, 2005). This analysis takes into account cohort data. Literature has reported

goals for writing change as L2 writing expertise develops (Leki, 2007), however few studies were conducted for self-efficacy and interests in relation to L2 writing performance. The current study explored to what degree and in what manner Korean college students' initial L2 writing self-efficacy and interests develop over time, and how these constructs are related to writing performance.

In particular, two growth curve models for each of the two L2 writing motivation constructs were pertinent to question 1 as graphically presented in Figure 3. In the first model, self-efficacy was a factor score which was computed from the self-efficacy measurement at Time 1. Likewise, two interest models (instrumentative interest and communicative interest) were a factor score from the interest measurement at Time 1. The models were evaluated with several fit indices such as comparative fit index (CFI).

There were theoretical and practical reasons for using the three separate growth curve models instead of combining them into one single model. First, as reviewed in Chapter 2, studies on three motivational constructs (self-efficacy, interest, and goals) had separate historical roots in the extant L2 writing literature. Studies regarding motivation have been established by each separate motivation factor. Second, the three motivation constructs had no strong association with one another as presented in the correlation matrices (see Tables 5 and 6). Since the motivation factors seemed relatively independent one another, testing models for each of the constructs seemed to provide more meaningful and specific information regarding which specific motivation constructs might work to explain either students' initial performance or growth of the performance.

Use of growth model techniques was expected to be particularly informative in this study framed by the MDL. In the MDL, each of the learner characteristics is

assumed to change over time, interactively functioning with other learner characteristics. Results for research question 1 using a growth curve model shed light on students' motivational changes and the relation between motivational and performance changes. Relations of other learner variables and their changes are described in the findings for research questions 2 and 3.

Interview data were designed to support student self-reports by providing measurement triangulation. In addition, students' own explanations for a determinant of their reported level of self-efficacy from the interview data.

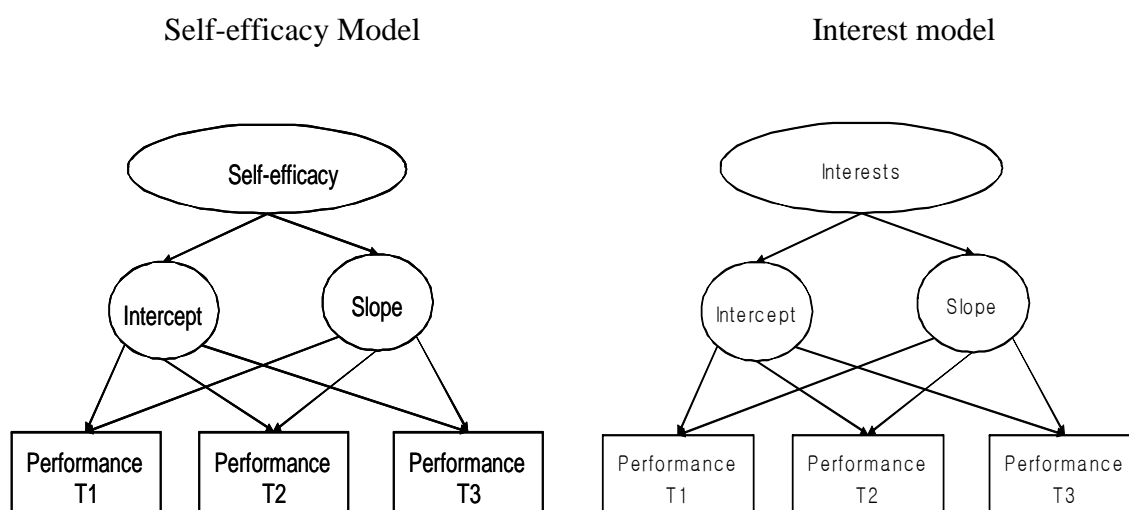


Figure 3. Growth Curve Models for Motivation Constructs

2. How are Korean college students' interest and self-efficacy at the beginning (Time 1) and at the conclusion (Time 3) of an L2 writing course related to L2 writing performance and self-reported strategies at these specific time points?

This question involved two pairs of cross-sectional data analyses such as motivation at Time 1 with performance at Time 1, and motivation at Time 3 with performance at Time 3. With these cross-sectional data analyses, I sought to find relevance of writing strategy uses to L2 writing motivation constructs (i.e., self-efficacy

and interests). Analyses for the relations employed multiple regressions with factor scores for self-efficacy and interest on five composite scores for L2 writing strategies (i.e., planning, modifying, revising, retrieving, and compensating). The factor scores were expected to predict L2 writing performance scores. Magnitude and direction (i.e., whether negative or positive) of the relations between each motivation construct and writing performance were reported. Interview data served to triangulate the statistical results from the analysis of strategy use, self-efficacy, and interest measurement.

According to the guiding framework, L2 writing learner characteristics were expected to show their own profile at each stage of development (Alexander, 1997, 1998, 2002). Cross-sectional data analyses for the variables at each time point were incorporated in the study in order to display relations among the L2 writing learner variables that may vary at each of the different time points over a semester. A similar idea was applied to the analyses of prior knowledge in the following research question 3.

3. How is Korean college students' prior L2 writing knowledge associated with their L2 writing motivation, self-reported strategy use, and writing performance?

Results from quantitative analysis using multiple regressions answered question 3. In the regression analyses, L2 writing prior knowledge scores (Appendix D) and L1 self-efficacy scores (Appendix G) were used as indicators of the participants' prior L1 and L2 writing knowledge. In each multiple regression model, the prior knowledge scores were independent variables, and their relations to motivation, strategy uses, and performance were examined. Self-efficacy and interests were factor scores computed from the 18 items (Appendix E), and writing strategies were composite scores from the 18 items (Appendix F) as being used in question 2. A useful framework for investigating these

relations among motivation, strategic processing, and prior knowledge in L2 writing development was Model of Domain Learning (MDL; Alexander, 1997). In MDL, learners are predicted to follow three developmental stages of acclimation, competence, and proficiency, where knowledge, interest, and strategies come into play showing a distinctive profile at each stage of development (Alexander, 1997, 1998, 2002). This study investigated acclimation stage of this model for L2 writing context.

L1 writing and L2 writing prior knowledge in this study were treated as separate constructs as were the motivation factors. As with the use of three separate motivation factors in each model, the use of L1 and L2 writing prior knowledge as separate constructs was due to theoretical and the actual measurement results. L1 and L2 prior knowledge were operationalized through two different concepts as described in Chapter 1. The low relation between L1 and L2 knowledge in the current study is seen in the correlation matrices of Tables 5 and 6. The effects of L1 and L2 writing as independent constructs seemed to be better presented by treating them in separate models.

Table 5

Correlation Matrix for the Variables at Time 1 (N=212)

	1	2	3	4	5	6	7	8	9	10	11	12
1. Performance	1											
2. Planning	0.42	1										
3. Monitoring	0.37	0.75	1									
4. Revising	0.38	0.63	0.78	1								
5. Retrieving	0.36	0.7	0.72	0.71	1							
6. Compensating	0.38	0.63	0.61	0.61	0.68	1						
7. Factor SE	0.6	0.59	0.6	0.6	0.59	0.57	1					
8. Factor II	0.26	0.38	0.34	0.36	0.41	0.41	0.36	1				
9. Factor CI	0.31	0.47	0.46	0.38	0.43	0.41	0.41	0.45	1			
10. L2 PK	0.66	0.39	0.3	0.34	0.31	0.36	0.49	0.2	0.18	1		
11. L1 PK	0.41	0.45	0.48	0.46	0.42	0.49	0.61	0.48	0.26	0.25	1	
12. Age	0.11	0.17	0.13	0.13	0.17	0.14	0.21	0.25	0.25	0.02	0.05	1

Note. SE=self-efficacy; II=Instrumentative Interest; CI=Communicative Interest; PK=Prior Knowledge; L2=Second language; L1=First language.

Table 6

Correlation Matrix for the Variables at Time 3 (N=214)

	1	2	3	4	5	6	7	8	9	10	11	12
1. Performance	1											
2. Planning	0.28	1										
3. Monitoring	0.2	0.77	1									
4. Revising	0.16	0.63	0.8	1								
5. Retrieving	0.23	0.64	0.67	0.64	1							
6. Compensating	0.18	0.56	0.62	0.62	0.73	1						
7. Factor SE	0.41	0.64	0.62	0.58	0.55	0.46	1					
8. Factor II	0.1	0.36	0.28	0.28	0.27	0.25	0.31	1				
9. Factor CI	0.2	0.43	0.47	0.33	0.36	0.27	0.45	0.37	1			
10. L2 PK	0.44	0.1	0.13	0.13	0.07	0.05	0.25	0.04	0.12	1		
11. L1 PK	0.33	0.34	0.35	0.37	0.31	0.34	0.44	0.15	0.25	0.27	1	
12. Age	-0.07	0.07	0.13	0.08	0.06	0	0.05	0.23	0.24	-0.06	0.04	1

Note. SE=self-efficacy; II=Instrumentative Interest; CI=Communicative Interest; PK=Prior Knowledge; L2=Second language; L1=First language.

CHAPTER IV

RESULTS AND DISCUSSION

The current study explored how Korean college students' L2 writing developed in an L2 writing class in relation to various learner characteristics. In particular, I addressed to what extent and in what manner students' English L2 writing performance, prior knowledge, self-efficacy, interest, and self-reported L2 writing strategies changed, and how these variables interrelated at each of three time points and over the course of a semester. Analysis of the data relevant to the specific research questions of concern involved several statistical techniques including structural equation modeling and multiple regression. In addition, I used interview data to elaborate and clarify the statistical analyses. The current chapter provides a summary and discussion of the results, and consists of four major sections, each corresponding to a specific research question. In the last section, I examine the consistency of the data in terms of measurement types (i.e., self-report and interview) and students' anecdotes regarding their struggles with L2 English writing.

Prior to performing the main data analysis for each question, a factor analysis with motivation data at Time 1 was implemented. Factor scores for motivation variables (i.e., self-efficacy and interest) were computed and used in growth curve model and multiple regression analyses in the later parts of the analyses. An exploratory factor analysis on 18 items with regard to motivation with a promax rotation resulted in three factors. Ten self-efficacy items clearly loaded on the first factor, named "self-efficacy." Four out of eight interest items (i.e., items 1, 2, 3, 4) loaded on the second factor, named "Instrumentative Interest," and the remaining four items of the interest measure (i.e.,

items 5, 6, 7, 8) strongly loaded on the third factor, named “Communicative Interest” (see Table 7). A similar categorization on the L2 learner motivation has been documented in several studies (Gardner, 1988; Wenden, 1987) with regard to students’ attitudes or motivation for *general* English as a Second Language rather than English L2 *writing*. For instance, Gardner (1988) discriminated “instrumentative attitudes” from “integrative attitudes,” which is a more socially integrated motivation factor in his research based on the Attitudinal and Motivation Test Battery (AMTB). Although I included the concept under the umbrella term, “interest,” instrumentative interest indeed reflected goals. As defined in Chapter 1, the L2 writing coursework aimed to teach how to write a grammatically correct and structurally acceptable paper. Instrumentative interest appeared pertinent to the grammar and the structure issues in L2 writing in this study. It seems plausible to use instrumentative interest as a proxy for goals in the current study.

Table 7

Factor Loadings on Self-Efficacy and Interests at Time 1

Items	Factor Loadings			
	Factor1	Factor2	Factor3	
Self-efficacy 1	0.87	0.08	-0.14	Correctly spell
Self-efficacy 2	0.84	0.02	-0.10	Correctly punctuate
Self-efficacy 3	0.93	0.01	-0.05	Correctly use all parts of speech
Self-efficacy 4	0.89	0.14	-0.19	Correctly write simple sentences
Self-efficacy 5	0.88	0.07	-0.13	Correctly use grammatical elements
Self-efficacy 6	0.90	0.00	0.03	Write a good topic sentence
Self-efficacy 7	0.89	-0.06	0.14	Use supporting sentences
Self-efficacy 8	0.83	-0.09	0.19	Use proper concluding sentences
Self-efficacy 9	0.81	-0.08	0.24	Write a well-organized paper
Self-efficacy 10	0.79	-0.05	0.23	Stay focused on the topic
Interest 1	0.01	0.91	-0.09	Learning more vocabulary
Interest 2	0.19	0.59	0.13	The way of class teaching
Interest 3	-0.11	0.81	0.13	Grammar knowledge
Interest 4	0.06	0.88	0.01	Structure of English essays
Interest 5	0.07	0.29	0.61	Writing about my major in English
Interest 6	0.02	-0.06	0.80	Communication with friends and professors
Interest 7	-0.02	0.43	0.47	How to more professionally write my major
Interest 8	-0.09	0.08	0.75	Each Topic

Note. Factor Loadings >.45 are in boldface.

Changes of Self-Efficacy and Interest

Regarding the first research question, I explored how Korean college students' self-efficacy and interest at Time 1 contributed to their L2 writing performance changes from Time 1 to Time 3. Means and standard deviations for 187 students' L2 writing performance, motivation, and strategy scores from the longitudinal data are displayed in Table 8.

Table 8

Means and Standard Deviations for Prior Knowledge, Performance, Strategy, Self-Efficacy, and Interest for the Longitudinal Data (N=187)

Variable	Subcategory	Max.	Time 1 <i>M(SD)</i>	Time 2 <i>M(SD)</i>	Time 3 <i>M(SD)</i>
Prior Knowledge		15	11.17(3.06)	N/A	N/A
Performance		5	2.51(0.86)	2.73(0.84)	3.16(0.88)
Strategy	Planning	100	54.95(18.66)	55.5(19.57)	56.35(20.2)
	Monitoring	100	51.37(19.17)	53.03(17.37)	52.76(18.61)
	Revising	100	54.05(20.69)	55.84(19.33)	55.61(19.55)
	Retrieving	100	56.86(19.66)	57.29(17.43)	57.59(17.65)
	Compensating	100	54.81(18.65)	54.48(18.01)	57.11(19.52)
Self-efficacy		100	54.82(20.94)	N/A	58.51(18.59)
Interest	Instrumentative	100	78.92(15.05)	N/A	75.23(16.5)
	Communicative	100	57(20.45)	N/A	55.3(20.32)

As seen in Table 8, average scores were increased from Time 1 to Time 3 in all of the variables except two interest variables. To see if these changes were statistically significant, an additional univariate test for within-subject effects were performed. Of these nine variables, performance appeared to significantly change over time ($F=66.99$, $p<0.001$), whereas changes of other variables were not statistically significant. Further univariate repeated measure tests regarding difference for the performance measure in each of the time gaps (i.e., Time 1-Time 2 and Time 2-Time 3) indicated significant changes between Time 1 and Time 2, $F=101.69$, $p<0.001$, and between Time 2 and Time 3, $F=80.65$, $p<0.001$. In the preliminary analyses, the means of the performance measure showed modest growth (see Figure 4).

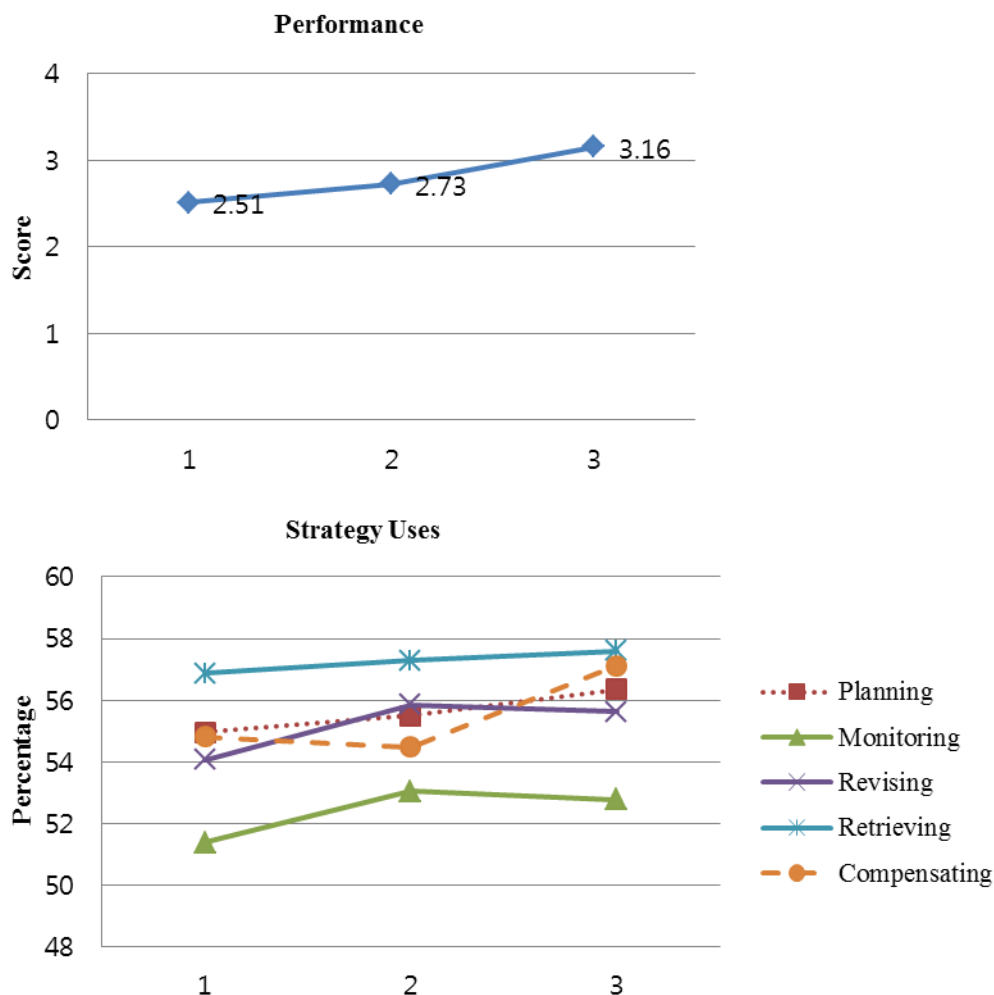


Figure 4. Graphical representation of average strategy use changes and performance score changes for Korean college students' ESL writing.

On average, there was a point growth of 0.22 between performances at Time 1 and at Time 2 and 0.43 between performances at Time 2 and at Time 3. A conceptual LGM (longitudinal structural equation model technique) with the linear growth (Figure 5) was tested using the Aikake Information Criterion (AIC). According to this model, three initial motivation factors of SE, II, and CI were hypothesized to be important determinants of intercept and slope for each performance at three time points. The intercept in the model represents initial status of the performance scores, which were set

at one over the time points. The slope represents change of the performance scores, which were respectively set at 0, 1 and 2 to show linear growth throughout three time points. The correlation matrix and means for these variables are included in Table 9. The correlations among the three motivation constructs were not strong (SE-II=0.21; SE-CI=0.38; II-CI=0.41). Therefore, I decided to use three separate growth curve models based on the low correlations of the motivation constructs with one another and the separate historical roots of the motivation literature in L2 writing (see Chapter 2).

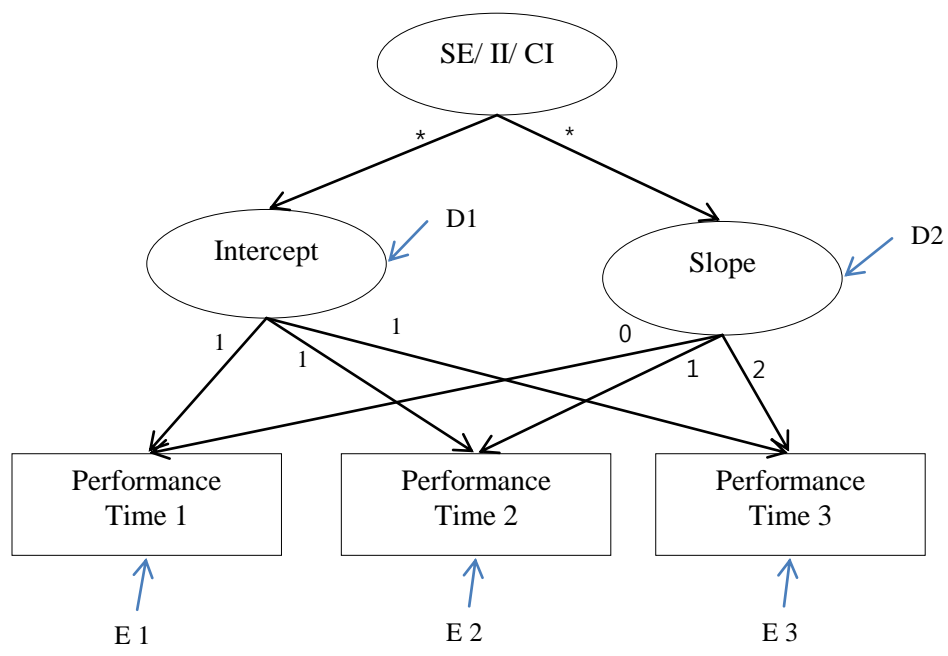


Figure 5. Growth Curve Models for Motivation Constructs. SE=self-efficacy; II=Instrumentative Interest; CI=Communicative Interest.

Table 9

Correlation Matrix and Means for the Performance and Motivation Factors

	1	2	3	4	5	6
1. P 1	1					
2. P 2	0.63	1				
3. P 3	0.49	0.71	1			
4. Factor SE	0.57	0.4	0.45	1		
5. Factor II	0.28	0.2	0.15	0.21	1	
6. Factor CI	0.3	0.21	0.05	0.38	0.43	1
Means	2.51	2.73	3.16	0.00	0.00	0.00

Note. P1=Performance at Time1; P2=Performance at Time2; P3=Performance at Time3; SE=self-efficacy; II=Instrumentative Interest; CI=Communicative Interest.

The conceptual model seemed sustainable. The fit indices of all the models except SE met the joint recommendations suggested by Hu and Bentler (1999). Using the CFI fit index and according to Hu and Bentler's (1999) rule of thumb ($CFI > 0.95$), good fit for the longitudinal sample including those who responded both at Time 1 and Time 3 were identified in the SE model ($CFI=0.98$), the II model ($CFI=1$) and the CI model ($CFI=1$). Likewise, the SRMR was less than .09 in all of the models (SRMR for SE = .059; II=.004; CI=.009). However, the RMSEA did not meet their recommended value of less than .06 in SE (RMSEA=.189) whereas the II model (RMSEA=.000) and CI model (RMSEA=.000) satisfied the guideline. The factor scores in the model helped us to predict English writing performance at three time points. This finding substantiates the impact of the three self-reported motivation constructs on students' L2 writing performance at the beginning and the changes over time. As the conceptual model indicates, a linear growth with 1 point score increase from Time 1 through Time 3 was tenable (see Table 10).

Table 10

Path Coefficients for Motivation Constructs

Variables	Intercept				Slope			
	β	SE	<i>b</i>	R^2	β	SE	<i>b</i>	R^2
SE ^a	0.601	0.051	0.475*	0.362	-0.097	0.032	-0.039	0.009
CI	0.367	0.058	0.267*	0.134	-0.329	0.031	-0.111*	0.109
II	0.318	0.059	0.234*	0.101	-0.155	0.032	-0.053*	0.024

Note. SE^a=self-efficacy; CI=Communicative Interest; II=Instrumentative Interest, β =standardized coefficient; *b*=unstandardized coefficient; * $p < .05$.

Self-Efficacy

Self-Efficacy (SE) was significantly associated with initial performance, $b=0.475$, $p < 0.05$, $\beta=0.601$. In particular, one score increase in SE factor score led to a .475 unit increase in initial performance score. By contrast, no significance was captured in relation between SE and performance growth rate, meaning that students' initial SE was not influential in changes of their L2 writing performance. Regardless of initial SE, students' L2 writing performance tended to improve over time.

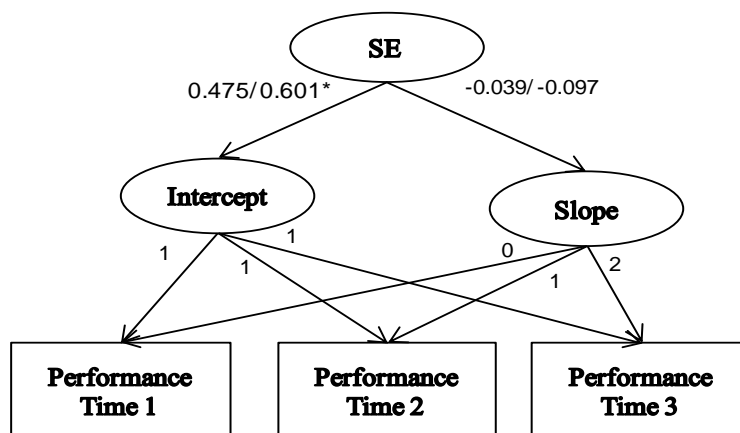


Figure 6. Self-Efficacy Model with Unstandardized and Standardized Path Coefficients. Path coefficients designated with an * were significant at $p < .05$. SE=self-efficacy.

Communicative Interest

Communicative Interest (CI) was significantly associated both with initial English L2 writing performance, $b=0.267$, $p<0.05$, $\beta=0.367$, and growth rate, $b=-0.111$, $p<0.05$, $\beta=-0.329$. That is, one score increase in CI factor score led to a .267 unit increase in initial performance score and a 0.039 unit decrease in growth rate. Participants who were more interested in the L2 writing as a communicative means tended to perform *better* at the beginning of semester. Conversely, the same group with more interest was *less* likely to grow than their counterparts. In other words, the more students were interested in communicating in English with their colleagues and teachers for their major and professional contents, the slower their English L2 writing developed.

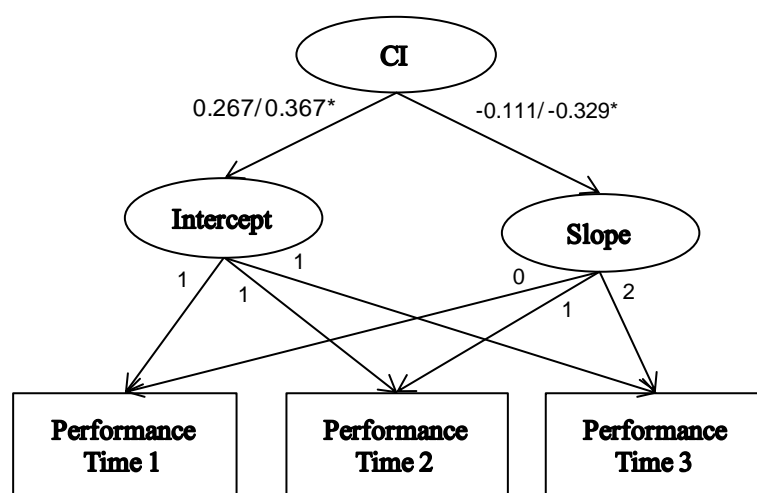


Figure 7. Communicative Interest Model with Unstandardized and Standardized Path Coefficients. Path coefficients designated with an * were significant at $p < .05$.

CI=communicative interest.

Instrumentative Interest

Likewise, Instrumentative Interest (II) was significantly related both with initial English L2 writing performance, $b=0.234$, $p<0.05$, $\beta=0.318$, and growth rate, $b=-0.053$, $p<0.05$, $\beta=-0.155$. One score increase in II factor score led to a .234 unit increase in initial performance score and a .053 unit decrease in growth rate. Participants who were interested in the L2 writing as an instrumentative purpose was *more* likely to outperform at the beginning of semester than those who were not interested, but their L2 writing performance was *less* likely to improve compare to participants with low level of instrumentative interest.

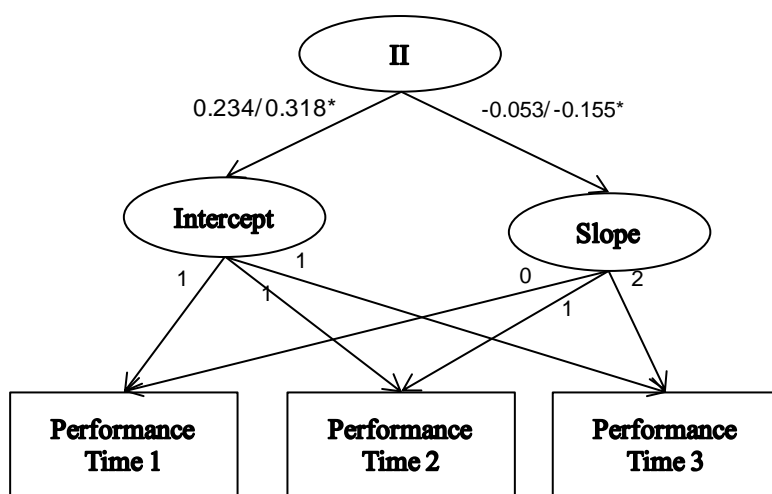


Figure 8. Instrumentative Interest Model with Unstandardized and Standardized Path Coefficients. Path coefficients designated with an * were significant at $p < .05$.

II=instrumentative interest.

Motivation Related to Performance and Strategies

The second research question addressed how Korean L2 college students' motivation (i.e., self-efficacy and interest) were related to L2 writing performance and

self-reported strategy use at the beginning (Time 1) and at the end of the semester (Time 3). Specifically, this analysis was designed to inform cross-sectional relations among the variables as opposed to the longitudinal relations examined in the first research question. Table 11 presents means and standard deviations for motivation composite scores at Time 1 and Time 3 and strategy composite scores at Times 1 through 3 with scores of other variables. On average, the participants most frequently used the retrieving strategy ($M=55.48$, $SD=20.77$) of the five types of L2 writing strategy. The least usage was found for monitoring strategy ($M=49.53$, $SD=20.44$) at Time 1. The participants' self-reported self-efficacy and communicative interest fell at the mid-range of the scale ($M=53.39$, $SD=19.90$ and $M=56.12$, $SD=21.27$, respectively). In contrast, the students were highly interested in learning instrumentative elements of L2 English writing ($M=77.56$, $SD=17.54$) at Time 1. The participants scored 2.49 points (out of 5 points as a full score), on average, in writing performance measure at Time 1 and 3.12 points at Time 3.

In order to examine types of motivation related to strategy use and performance level, I tested six multiple regression models, where each type of five strategies and the performance score was a dependent variable, and self-efficacy (SE), instrumentative interest (II), and communicative interest (CI) factor scores were independent variables as presented in equations (1) through (6). Also, students' age, L2 prior knowledge (PK), and instructors were included in the model at Time 1 as control variables. Students' different levels of knowledge and instructors' teaching styles have been considered as strong candidates that might confound associations between their writing products and

strategy uses for the products in the literature (Lee, 2005; Lee & Schallert, 2008; Sanders & Love, 2004; Schuyten, Dekeyser & Goeminne, 1999).

Table 11

Means and Standard Deviations for Prior Knowledge, Performance, Strategy, Self-Efficacy, and Interest for Cross-Sectional Data at Time 1, Time 2, and Time 3

Variable	Subcategory	Max.	Time 1 N=212 M(SD)	Time 2 N=218 M(SD)	Time 3 N=214 M(SD)
Prior Knowledge		15	11.08(3.17)	N/A	N/A
Performance		5	2.49(0.91)	2.64(0.90)	3.12(0.96)
Strategy	Planning	100	53.08(19.91)	54.68(18.70)	56.87(19.74)
	Monitoring	100	49.53(20.44)	51.20(19.43)	52.89(18.5)
	Revising	100	52.28(21.79)	53.88(20.90)	55.51(19.76)
	Retrieving	100	55.48(20.77)	57.04(19.33)	58.13(17.29)
	Compensating	100	53.56(19.90)	54.95(18.86)	57.44(19.1)
Self-Efficacy		100	53.39(19.90)	N/A	58.26(18.45)
Interest	Instrumentative	100	77.56(17.54)	N/A	75.29(16.25)
	Communicative	100	56.12(21.27)	N/A	55.84(19.78)

Consequently, there were two types of cross-sectional models for data at Time 1 but only one model for data at Time 2 because L2 PK was only measured at Time 1: Model 1 included L2 PK, and Model 2 did not include L2 PK. All of the participants were not involved in both Time 1 and Time 3. Model 1 (model with L2 PK control) was used only for testing responders at Time 1. Model 2 (model without L2 PK control) was used for testing responders either at Time 1 or Time 3. Thus, there were three data analyses: a) Model 1 with data at Time 1; b) Model 2 with data at Time 1; and c) Model 2 with data at Time 3. Table 7 presents results from Model 1 and Model 2 with data at Time 1.

$$\text{Performance} = \text{SE} + \text{II} + \text{CI} + \text{Age} + (\text{L2 PK}) + \text{Instructor} \quad (1)$$

$$\text{Planning Strategy} = \text{SE} + \text{II} + \text{CI} + \text{Age} + (\text{L2 PK}) + \text{Instructor} \quad (2)$$

$$\text{Monitoring Strategy} = \text{SE} + \text{II} + \text{CI} + \text{Age} + (\text{L2 PK}) + \text{Instructor} \quad (3)$$

$$\text{Revising Strategy} = \text{SE} + \text{II} + \text{CI} + \text{Age} + (\text{L2 PK}) + \text{Instructor} \quad (4)$$

$$\text{Retrieving Strategy} = \text{SE} + \text{II} + \text{CI} + \text{Age} + (\text{L2 PK}) + \text{Instructor} \quad (5)$$

$$\text{Compensating Strategy} = \text{SE} + \text{II} + \text{CI} + \text{Age} + (\text{L2 PK}) + \text{Instructor} \quad (6)$$

Note. (L2 PK) was controlled only in Model 1 but not in Model 2.

At Time 1, self-efficacy had statistically significant relations with all of the dependent variables (i.e., performance and five types of strategy) over and above students' age, L2 prior knowledge, and instructors as shown in Model 1 of Table 7. However, instrumentative interest and communicative interest had different associations with the six dependent variables adjusting the same covariates. For instance, II was significantly related only with two types of strategies (i.e., retrieving and compensating), whereas CI was significantly related with planning, monitoring, and compensating when students' age, L2 prior knowledge and instructors were controlled in the models.

It was notable that performance was significantly related with self-efficacy but not with any types of interest. All the significant relations that were previously mentioned were positive. That is, students with high self-efficacy scored better in the L2 writing performance task and more frequently used writing strategies than students with low self-efficacy. On average, students' performance score was one point higher as their self-efficacy score was 0.21 point greater (see Table 7) over and above students' age, L2 prior knowledge, and instructor. Likewise, interested students in learning instrumentative elements were likely to use retrieving ($b=3.63$, $SE=1.45$, $t=2.61$), and compensating strategies ($b=3.15$, $SE=1.36$, $t=2.32$), and students with communicative interest showed significantly more frequent planning ($b=5.51$, $SE=1.34$, $t=4.1$), monitoring ($b=4.39$,

$SE=1.40, t=3.12$), and compensating strategy use ($b=4.32, SE=1.38, t=3.12$) than students who were not interested in learning communicative L2 writing skills.

Almost the same pattern (except for retrieving strategy use) was found in statistics in Model 1 and Model 2 (see Table 12). Retrieving strategy showed a stronger relation with instrumentative interest with L2 PK adjustment ($b=3.63, SE=1.39, t=2.61$) than without L2 PK adjustment ($b=3.56, SE=1.4, t=2.55$). Retrieving strategy had a marginal significance in relation with communicative interest not adjusting L2 PK ($b=3.36, SE=1.42, t=2.36$) but was no longer significantly related with communicative interest adjusting PK ($b=3.28, SE=1.42, t=2.32$). CI appeared to be related to retrieving strategy without L2 PK controlled in the first model. However, the relation between CI and retrieving strategy might have been indeed in part due to PK not merely due to effect from CI. Thus, the addition of L2 PK to the model diminished a portion of CI effect on retrieving strategy in the second model. Likewise, there was difference in the significances of Model 1 and 2 regarding relations between II and revising strategy. The significant relation between II and revising strategy from Model 2 ($b=3, SE=1.5, t=2$) disappeared by adjusting L2 PK in Model 1 ($b=3.06, SE=1.50, t=2.04$).

Table 12

Performance and Strategy Related with Self-Efficacy, Instrumentative Interest, and Communicative Interest at Time 1

<i>DV</i>	<i>IV</i>	<i>Model 1 (PK controlled)</i>					<i>Model 2 (PK uncontrolled)</i>				
		<i>b</i>	<i>SE</i>	<i>t</i>	<i>p-value</i>	<i>Adj.R²</i> (<i>ES</i>)	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p-value</i>	<i>Adj.R²</i> (<i>ES</i>)
Performance	SE ^a	0.21	0.05	4.25	<.0001	0.63	0.29	0.1	5.76	<.0001	0.58
	II	0.01	0.05	0.22	0.83		0	0.1	0.08	0.94	
	CI	0.05	0.05	1.01	0.32		0.06	0.1	1.08	0.28	
	Age	-0.02	0.02	-0.72	0.47		-0.01	0	-0.2	0.83	
	TM	0.67	0.21	3.15	0.00	(3.05)	1.19	0.2	5.87	<.0001	(5.08)
	TL	0.43	0.24	1.78	0.08	(1.09)	0.96	0.2	4.12	<.0001	(2.29)
	TJ	0.22	0.22	0.97	0.33	(0.81)	0.83	0.2	4.13	<.0001	(3.08)
	TA	-0.49	0.21	-2.35	0.02	(1.19)	-0.37	0.2	-1.7	0.09	(0.96)
	TB	0.00	.	.	.	.	0	.	.	.	.
	L2 PK	0.10	0.02	5.27	<.0001						
Planning	SE ^a	8.00	1.38	5.81	<.0001	0.42	8.62	1.3	6.56	<.0001	0.42
	II	1.64	1.32	1.24	0.22		1.59	1.3	1.2	0.23	
	CI	5.51	1.34	4.1	<.0001		5.57	1.4	4.13	<.0001	
	Age	0.63	0.64	0.97	0.33		0.72	0.6	1.11	0.27	
	TM	-1.05	5.83	-0.18	0.86	(0.18)	2.9	5.2	0.56	0.58	(0.48)
	TL	-3.46	6.60	-0.53	0.60	(0.32)	0.63	6	0.1	0.92	(0.06)
	TJ	4.41	6.09	0.72	0.47	(0.60)	9.15	5.2	1.76	0.08	(1.31)
	TA	-0.32	5.70	-0.06	0.96	(0.03)	0.59	5.7	0.1	0.92	(0.06)
	TB	0.00	.	.	.	.	0	.	.	.	.
	L2 PK	0.74	0.50	1.48	0.14						
Monitoring	SE ^a	10.22	1.44	7.11	<.0001	0.40	10.4	1.4	7.64	<.0001	0.40
	II	1.58	1.38	1.15	0.25		1.56	1.4	1.14	0.26	
	CI	4.39	1.40	3.12	0.00		4.41	1.4	3.15	0.00	
	Age	-0.73	0.67	-1.08	0.28		-0.69	0.7	-1	0.30	
	TM	0.24	6.09	0.04	0.97	(0.04)	1.63	5.4	0.3	0.76	(0.26)
	TL	-0.41	6.89	-0.06	0.95	(0.04)	1.02	6.3	0.16	0.87	(0.09)
	TJ	-1.30	6.36	-0.2	0.84	(0.17)	0.36	5.4	0.07	0.95	(0.05)
	TA	4.50	5.95	0.76	0.45	(0.38)	4.82	5.9	0.82	0.42	(0.46)
	TB	0.00	.	.	.	.	0	.	.	.	.
	L2 PK	0.26	0.52	0.5	0.62						

Table 12 (continued)

DV	IV	Model 1 (PK controlled)					Model 2 (PK uncontrolled)				
		b	SE	t	p-value	Adj.R ² (ES)	b	SE	t	p-value	Adj.R ² (ES)
Revising	SE ^a	10.50	1.56	6.72	<.0001	0.38	11.2	1.5	7.5	<.0001	0.37
	II	3.06	1.50	2.04	0.04		3	1.5	2	0.05	
	CI	2.24	1.53	1.47	0.14		2.3	1.5	1.51	0.13	
	Age	-0.58	0.73	-0.8	0.43		-0.48	0.7	-0.7	0.51	
	TM	-2.52	6.62	-0.38	0.70	(0.37)	1.92	5.9	0.32	0.75	(0.28)
	TL	-4.75	7.49	-0.63	0.53	(0.39)	-0.16	6.8	-0	0.98	(0.01)
	TJ	-4.67	6.91	-0.68	0.50	(0.56)	0.66	5.9	0.11	0.91	(0.08)
	TA	2.43	6.46	0.38	0.71	(0.19)	3.45	6.4	0.54	0.59	(0.30)
	TB	0.00	.	.	.	.	0	.	.	.	.
	L2 PK	0.83	0.56	1.47	0.14						
Retrieving	SE ^a	9.84	1.45	6.79	<.0001	0.42	10.7	1.4	7.69	<.0001	0.41
	II	3.63	1.39	2.61	0.01		3.56	1.4	2.55	0.01	
	CI	3.28	1.42	2.32	0.02		3.36	1.4	2.36	0.02	
	Age	-0.51	0.68	-0.75	0.46		-0.38	0.7	-0.6	0.57	
	TM	-8.60	6.14	-1.4	0.16	(1.36)	-3.17	5.5	-0.6	0.56	(0.50)
	TL	-9.31	6.94	-1.34	0.18	(0.82)	-3.7	6.4	-0.6	0.56	(0.32)
	TJ	-10.55	6.41	-1.65	0.10	(1.37)	-4.04	5.5	-0.7	0.46	(0.55)
	TA	0.75	6.00	0.13	0.90	(0.06)	2	6	0.33	0.74	(0.19)
	TB	0.00	.	.	.	.	0	.	.	.	.
	L2 PK	1.01	0.52	1.93	0.05						
Compensating	SE ^a	8.09	1.41	5.72	<.0001	0.39	8.51	1.4	6.31	<.0001	0.39
	II	3.15	1.36	2.32	0.02		3.12	1.4	2.3	0.02	
	CI	4.32	1.38	3.12	0.00		4.35	1.4	3.15	0.00	
	Age	0.15	0.66	0.23	0.82		0.21	0.7	0.32	0.75	
	TM	-3.96	5.99	-0.66	0.51	(0.64)	-1.31	5.3	-0.3	0.81	(0.21)
	TL	-1.88	6.78	-0.28	0.78	(0.17)	0.87	6.2	0.14	0.89	(0.08)
	TJ	1.7	6.26	0.27	0.79	(0.23)	4.88	5.3	0.92	0.36	(0.68)
	TA	-4.19	5.85	-0.72	0.48	(0.36)	-3.58	5.8	-0.6	0.54	(0.35)
	TB	0	.	.	.	.	0	.	.	.	.
	L2 PK	0.49	0.51	0.97	0.33						

Note. SE^a=English L2 writing self-efficacy; DV=Dependent Variable; IV=Independent Variable; II=Instrumentative Interest; CI=Communicative Interest; PK=Prior Knowledge; TM=Teacher M; TL=Teacher L; TJ=Teacher J; TA=Teacher A; TB=Teacher B (reference group); L2PK was measured only at Time 1; ES=Effect Size.

Table 13 presents the results from regression analyses for data at Time 3 (Model 2 only). Likewise, SE was a significant contributor to all types of the strategy uses. However, the relation between SE and performance appeared insignificant with a lower estimate at Time 3 ($p=0.08$, $b=0.08$) than that at Time 1. Consequently, there were no significant relations between any of the motivation variables and students' performance at Time 3.

With regard to interest, significant relations among the variables that appeared at Time 1 did not last at Time 3. In particular, relations of revising-II, retrieving-II, retrieving-CI, compensating-II, and compensating-CI were significant at Time 1, but the relations no longer existed at Time 3. Instead, the relation between planning and II now appeared significant at Time 3. At the end of the semester, students who were interested in instrumentative components were likely to more frequently report using planning as a strategy. Students with high communicative interest tended to report using planning and monitoring strategies. Significant relations of planning-CI and monitoring-CI were present both at Time 1 and at Time 3.

Effects of Prior Knowledge

The last research question addressed association between Korean college students' prior L2 writing knowledge and each of the L2 writing variables such as self-reported SE, II, CI, strategy uses, and writing performance. To answer this question, I utilized multiple regressions, where L2 prior knowledge (PK) functioned as an independent variable, and SE, II, CI, performance and five types of strategy use were dependent variables. It should be noted that PK was treated as an independent variable in this model as opposed to a covariate in the models in the previous section. Thus, I

analyzed nine regression models for testing the nine pairs of relations (e.g., PK with the nine remaining learner character variables) in total at Time 1 and at Time 3.

Table 13

Performance and Strategy Related with Self-Efficacy, Instrumentative Interest, and Communicative Interest at Time 1 and at Time 3

DV	IV	Model 2 at Time 1					Model 2 at Time 3				
		b	SE	t	p-value	Adj.R ² (ES)	b	SE	t	p-value	Adj.R ² (ES)
Performance	SE ^a	0.29	0.1	5.76	<.0001	0.58	0.08	0.1	1.72	0.08	0.65
	II	0	0.1	0.08	0.94		0.02	0.1	0.33	0.74	
	CI	0.06	0.1	1.08	0.28		0.02	0.1	0.35	0.72	
	Age	-0.01	0	-0.2	0.83		0.03	0	1.13	0.26	
	TM	1.19	0.2	5.87	<.0001	(5.08)	1.67	0.2	10.6	<.0001	(5.90)
	TL	0.96	0.2	4.12	<.0001	(2.29)	2.08	0.2	10.7	<.0001	(3.73)
	TJ	0.83	0.2	4.13	<.0001	(3.08)	2.2	0.2	12.8	<.0001	(6.49)
	TA	-0.37	0.2	-1.7	0.09	(0.96)	0	0.2	0.02	0.99	(0.24)
	TB	0	.	.	.	.	0	.	.	.	.
Planning	SE ^a	8.62	1.3	6.56	<.0001	0.42	10.3	1.3	8.06	<.0001	0.45
	II	1.59	1.3	1.2	0.23		2.72	1.2	2.32	0.02	
	CI	5.57	1.4	4.13	<.0001		3.07	1.2	2.48	0.01	
	Age	0.72	0.6	1.11	0.27		0.19	0.6	0.31	0.75	
	TM	2.9	5.2	0.56	0.58	(0.48)	-4.17	4	-1.05	0.30	(1.22)
	TL	0.63	6	0.1	0.92	(0.06)	-0.23	5	-0.05	0.96	(1.09)
	TJ	9.15	5.2	1.76	0.08	(1.31)	0.24	4.4	0.06	0.95	(1.42)
	TA	0.59	5.7	0.1	0.92	(0.06)	-7.93	5.2	-1.52	0.13	(0.06)
	TB	0	.	.	.	.	0	.	.	.	.
Monitoring	SE ^a	10.4	1.4	7.64	<.0001	0.40	9.78	1.2	8	<.0001	0.43
	II	1.56	1.4	1.14	0.26		0.19	1.1	0.17	0.86	
	CI	4.41	1.4	3.15	0.00		3.99	1.2	3.36	0.00	
	Age	-0.69	0.7	-1	0.30		0.13	0.6	0.23	0.82	
	TM	1.63	5.4	0.3	0.76	(0.26)	-4.15	3.8	-1.09	0.28	(1.45)
	TL	1.02	6.3	0.16	0.87	(0.09)	0.94	4.8	0.2	0.84	(1.38)
	TJ	0.36	5.4	0.07	0.95	(0.05)	-5.41	4.2	-1.3	0.19	(1.27)
	TA	4.82	5.9	0.82	0.42	(0.46)	-5.53	5	-1.11	0.27	(0.22)
	TB	0	.	.	.	.	0	.	.	.	.
Revising	SE ^a	11.2	1.5	7.5	<.0001	0.37	10.9	1.4	7.71	<.0001	0.33
	II	3	1.5	2	0.05		1.36	1.3	1.06	0.29	
	CI	2.3	1.5	1.51	0.13		1.04	1.4	0.76	0.45	
	Age	-0.48	0.7	-0.7	0.51		-0.19	0.7	-0.28	0.78	
	TM	1.92	5.9	0.32	0.75	(0.28)	-2.63	4.4	-0.6	0.55	(0.84)
	TL	-0.16	6.8	-0	0.98	(0.01)	-3.46	5.5	-0.63	0.53	(0.71)
	TJ	0.66	5.9	0.11	0.91	(0.08)	-7.7	4.8	-1.6	0.11	(0.46)
	TA	3.45	6.4	0.54	0.59	(0.30)	-6.54	5.8	-1.14	0.26	(0.18)
	TB	0	.	.	.	.	0	.	.	.	.

Table 13 (continued)

DV	IV	Model 2 at Time 1					Model 2 at Time 3				
		B	SE	t	p-value	Adj.R ² (ES)	b	SE	t	p-value	Adj.R ² (ES)
Retrieving	SE ^a	10.7	1.4	7.69	<.0001	0.41	7.98	1.3	6.4	<.0001	0.30
	II	3.56	1.4	2.55	0.01		1.11	1.1	0.97	0.34	
	CI	3.36	1.4	2.36	0.02		1.89	1.2	1.56	0.12	
	Age	-0.38	0.7	-0.6	0.57		0.05	0.6	0.09	0.93	
	TM	-3.17	5.5	-0.6	0.56	(0.50)	0.21	3.9	0.05	0.96	(0.03)
	TL	-3.7	6.4	-0.6	0.56	(0.32)	3.06	4.9	0.63	0.53	(0.29)
	TJ	-4.04	5.5	-0.7	0.46	(0.55)	0.06	4.3	0.01	0.99	(0.01)
	TA	2	6	0.33	0.74	(0.19)	-2.97	5.1	-0.58	0.56	(0.25)
	TB	0	.	.	.	.	0	.	.	.	.
Compensating	SE ^a	8.51	1.4	6.31	<.0001	0.39	7.16	1.5	4.69	<.0001	0.20
	II	3.12	1.4	2.3	0.02		1.71	1.4	1.24	0.22	
	CI	4.35	1.4	3.15	0.00		1.23	1.5	0.83	0.41	
	Age	0.21	0.7	0.32	0.75		-0.58	0.7	-0.81	0.42	
	TM	-1.31	5.3	-0.3	0.81	(0.21)	-1.27	4.7	-0.27	0.79	(0.69)
	TL	0.87	6.2	0.14	0.89	(0.08)	1.64	5.9	0.28	0.78	(0.53)
	TJ	4.88	5.3	0.92	0.36	(0.68)	-1.23	5.1	-0.24	0.81	(0.69)
	TA	-3.58	5.8	-0.6	0.54	(0.35)	-8.11	6.1	-1.33	0.18	(0.40)
	TB	0	.	.	.	.	0	.	.	.	.

Note. SE^a=English L2 writing self-efficacy; DV=Dependent Variable; IV=Independent Variable; II=Instrumentative Interest; CI=Communicative Interest; PK=Prior Knowledge; TM=Teacher M; TL=Teacher L; TJ=Teacher J; TA=Teacher A; TB=Teacher B (reference group); ES=Effect Size.

The results at Time 1 indicated L2 prior knowledge was a statistically significant contributor to performance ($b=0.12$, $SE=0.02$, $t=6.77$), planning ($b=1.99$, $SE=0.56$, $t=3.58$), monitoring ($b=1.76$, $SE=0.59$, $t=2.99$), revising ($b=2.26$, $SE=0.63$, $t=3.61$), retrieving ($b=2.44$, $SE=0.59$, $t=4.11$), compensating ($b=1.79$, $SE=0.57$, $t=3.15$), and SE ($b=0.12$, $SE=0.03$, $t=4.81$) but not to II and CI with students' age and instructor types adjustment (see Table 14). In particular, L2 prior knowledge explained 58% of the performance variance. The explanation power was higher than variances with strategy use (13%~18%) and motivation factors (18%~32%). All the relations between the L2 prior knowledge and the nine dependent variables were positive; that is, initially knowledgeable Korean college students were likely to perform English L2 writing better,

more frequently use L2 writing strategies, and have higher L2 writing SE than their counterparts at the beginning of semester.

When it comes to Time 3, L2 prior knowledge significantly contributed to planning ($b=0.26$, $SE=0.08$, $t=3.11$), monitoring ($b=0.24$, $SE=0.08$, $t=3.17$), revising ($b=0.32$, $SE=0.08$, $t=3.98$), retrieving ($b=0.22$, $SE=0.07$, $t=2.91$), compensating ($b=0.28$, $SE=0.08$, $t=3.41$), self-efficacy ($b=0.02$, $SE=0$, $t=4.67$) but not to performance, II and CI with students' age and instructors as covariates (see Table 15). What was different from the results at Time 1 was the insignificant relation between L2 prior knowledge and performance. Perhaps, participation in classes might lead to students' development regardless of their initial knowledge levels. Like the results at Time 1, all the relations between L2 writing prior knowledge and the nine dependent variables were positive. At the end of the semester, students with more L2 writing prior knowledge tended to more frequently use L2 writing strategies and were higher self-confident in comparison with less knowledgeable students.

L1 proficiency as well as L2 prior knowledge has been considered as an important determinant on L2 writing development (Chen, 1999; Ito, 2007; Edelsky, 1982). Thus, I also examined effects of students' L1 writing proficiency on L2 writing variables. In particular, students' self-reported L1 writing SE was used as an indicator of L1 writing knowledge, assuming that students who had high L1 writing proficiency would be highly self-efficacious in L1 writing. Multiple regressions were conducted to test the degree to which L1 writing SE, as an L2 writing prior knowledge, was related with other L2 writing learner characteristics such as performance, strategy, SE, and interest at each time.

Table 14

Effects of English L2 Writing Prior knowledge on Performance, Strategy, Self-Efficacy, and Interest at Time 1

<i>DV</i>	<i>IV</i>	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p-value</i>	<i>Adj. R²</i> <i>(ES)</i>
Performance	L2 Prior Knowledge	0.12	0.02	6.77	<.0001	0.58
	Age	0	0.02	-0.06	0.95	
	TM	0.85	0.22	3.92	0	(3.89)
	TL	0.51	0.25	2.02	0.05	(1.27)
	TJ	0.27	0.23	1.17	0.24	(1.00)
	TA	-0.47	0.21	-2.19	0.03	(1.10)
	TB	0	.	.	.	
Planning	L2 Prior Knowledge	1.99	0.56	3.58	0	0.18
	Age	1.52	0.73	2.1	0.04	
	TM	10.69	6.69	1.6	0.11	(1.59)
	TL	1.75	7.75	0.23	0.82	(0.14)
	TJ	7.8	7.05	1.11	0.27	(0.94)
	TA	4.08	6.59	0.62	0.54	(0.31)
	TB	0	.	.	.	
Monitoring	L2 Prior Knowledge	1.76	0.59	2.99	0.00	0.13
	Age	0.29	0.77	0.38	0.70	
	TM	12.16	7.08	1.72	0.09	(1.70)
	TL	4.07	8.2	0.5	0.62	(0.31)
	TJ	1.96	7.46	0.26	0.79	(0.22)
	TA	7.65	6.97	1.1	0.27	(0.55)
	TB	0	.	.	.	
Revising	L2 Prior Knowledge	2.26	0.63	3.61	0	0.14
	Age	0.62	0.82	0.76	0.45	
	TM	8.9	7.53	1.18	0.24	(1.17)
	TL	-1.3	8.72	-0.15	0.88	(0.09)
	TJ	0.18	7.94	0.02	0.98	(0.02)
	TA	5.2	7.42	0.7	0.48	(0.35)
	TB	0	.	.	.	
Retrieving	L2 Prior Knowledge	2.44	0.59	4.11	<.0001	0.15
	Age	0.75	0.77	0.97	0.33	
	TM	4.24	7.13	0.59	0.55	(0.59)
	TL	-5.22	8.26	-0.63	0.53	(0.40)
	TJ	-5.18	7.52	-0.69	0.49	(0.59)
	TA	4.87	7.02	0.69	0.49	(0.35)
	TB	0	.	.	.	
Compensating	L2 Prior Knowledge	1.79	0.57	3.15	0.00	0.14
	Age	1.29	0.74	1.74	0.08	
	TM	8.27	6.85	1.21	0.23	(1.20)
	TL	2.25	7.93	0.28	0.78	(0.18)
	TJ	6.25	7.22	0.87	0.39	(0.74)
	TA	0.48	6.74	0.07	0.94	(0.04)
	TB	0	.	.	.	

Table 14 (continued)

<i>DV</i>	<i>IV</i>	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p-value</i>	<i>Adj. R²</i> (<i>ES</i>)
SE ^a	L2 Prior Knowledge	0.12	0.03	4.81	<.0001	0.32
	Age	0.06	0.03	1.88	0.06	
	TM	0.6	0.31	1.95	0.05	(1.92)
	TL	0.13	0.35	0.37	0.71	(0.24)
	TJ	0.11	0.32	0.33	0.75	(0.28)
	TA	-0.14	0.3	-0.47	0.64	(0.24)
	TB	0	.	.	.	
II	L2 Prior Knowledge	0.03	0.03	0.93	0.35	0.18
	Age	0.15	0.04	4.23	<.0001	
	TM	1.06	0.34	3.16	0.00	(3.10)
	TL	0.08	0.39	0.22	0.83	(0.14)
	TJ	1.04	0.36	2.92	0.00	(2.50)
	TA	0.83	0.33	2.5	0.01	(1.25)
	TB	0	.	.	.	
CI	L2 Prior Knowledge	0.05	0.03	1.65	0.10	0.18
	Age	0.03	0.04	0.79	0.43	
	TM	0.95	0.33	2.84	0.00	(2.79)
	TL	0.7	0.39	1.8	0.07	(1.13)
	TJ	0.13	0.35	0.37	0.71	(0.32)
	TA	0.75	0.33	2.29	0.02	(1.14)
	TB	0	.	.	.	

Note. SE^a=English L2 writing self-efficacy; DV=Dependent Variable; II=Instrumentative Interest; CI=Communicative Interest; TM=Teacher M; TL=Teacher L; TJ=Teacher J; TA=Teacher A; TB=Teacher B (reference group); ES=Effect Size.

Table 15

Effects of English L2 Writing Prior Knowledge on Performance, Strategy, Self-Efficacy, and Interest at Time 3

<i>DV</i>	<i>IV</i>	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p-value</i>	<i>Adj. R²</i> <i>(ES)</i>
Performance	L2 Prior Knowledge	0	0	0.94	0.35	0.60
	Age	0.03	0.02	1.17	0.24	
	TM	1.56	0.19	8.19	<.0001	(6.03)
	TL	1.96	0.25	7.98	<.0001	(5.15)
	TJ	2.02	0.19	10.43	<.0001	(6.72)
	TA	-0.11	0.22	-0.49	0.63	(0.01)
	TB	0	.	.	.	
Planning	L2 Prior Knowledge	0.26	0.08	3.11	0.00	0.15
	Age	0.88	0.79	1.11	0.27	
	TM	10.58	6.25	1.69	0.09	(0.99)
	TL	18.76	8.07	2.33	0.02	(1.28)
	TJ	14.55	6.38	2.28	0.02	(1.23)
	TA	-0.95	7.29	-0.13	0.90	(0.21)
	TB	0	.	.	.	
Monitoring	L2 Prior Knowledge	0.24	0.08	3.17	0.00	0.16
	Age	0.83	0.72	1.15	0.25	
	TM	11.47	5.71	2.01	0.05	(0.69)
	TL	21.67	7.37	2.94	0.00	(1.30)
	TJ	11.88	5.82	2.04	0.04	(0.50)
	TA	3.01	6.66	0.45	0.65	(0.07)
	TB	0	.	.	.	
Revising	L2 Prior Knowledge	0.32	0.08	3.98	<.0001	0.14
	Age	0.46	0.76	0.6	0.55	
	TM	6.99	6	1.17	0.25	(0.71)
	TL	11.69	7.74	1.51	0.13	(0.87)
	TJ	4.52	6.12	0.74	0.46	(0.20)
	TA	-2.56	6.99	-0.37	0.71	(0.18)
	TB	0	.	.	.	
Retrieving	L2 Prior Knowledge	0.22	0.07	2.91	0.00	0.11
	Age	0.61	0.71	0.86	0.39	
	TM	10.11	5.57	1.81	0.07	(1.41)
	TL	12.67	7.19	1.76	0.08	(1.37)
	TJ	11.37	5.68	2	0.05	(1.29)
	TA	1.91	6.5	0.29	0.77	(0.18)
	TB	0	.	.	.	

Table 15 (continued)

<i>DV</i>	<i>IV</i>	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p-value</i>	<i>Adj. R²</i> (<i>ES</i>)
Compensating	L2 Prior Knowledge	0.28	0.08	3.41	0.00	0.12
	Age	-0.09	0.78	-0.11	0.91	
	TM	5.98	6.11	0.98	0.33	(1.06)
	TL	9.24	8.01	1.15	0.25	(0.99)
	TJ	7.19	6.25	1.15	0.25	(0.90)
	TA	-5.79	7.1	-0.82	0.42	(0.30)
	TB	0	.	.	.	
SE ^a	L2 Prior Knowledge	0.02	0	4.67	<.0001	0.23
	Age	0.04	0.04	1.15	0.25	
	TM	0.59	0.3	1.97	0.05	(2.18)
	TL	0.83	0.38	2.15	0.03	(1.99)
	TJ	0.7	0.3	2.31	0.02	(1.91)
	TA	-0.05	0.35	-0.15	0.88	(0.16)
	TB	0	.	.	.	
II	L2 Prior Knowledge	0	0	1.03	0.30	0.08
	Age	0.05	0.04	1.25	0.21	
	TM	0.29	0.32	0.9	0.37	(0.15)
	TL	0.62	0.42	1.48	0.14	(0.19)
	TJ	-0.02	0.33	-0.05	0.96	(0.58)
	TA	-0.31	0.38	-0.81	0.42	(0.93)
	TB	0	.	.	.	
CI	L2 Prior Knowledge	0.01	0	1.93	0.06	0.14
	Age	0.1	0.04	2.48	0.01	
	TM	0.84	0.32	2.63	0.01	(1.43)
	TL	1.01	0.41	2.46	0.01	(1.20)
	TJ	0.7	0.33	2.13	0.03	(0.87)
	TA	0.49	0.38	1.31	0.19	(0.38)
	TB	0	.	.	.	

Note. SE^a=English L2 writing self-efficacy; DV=Dependent Variable; II=Instrumentative Interest; CI=Communicative Interest; TM=Teacher M; TL=Teacher L; TJ=Teacher J; TA=Teacher A; TB=Teacher B (reference group); ES=Effect Size.

Table 16

Effects of Korean LI Writing Prior Knowledge on Performance, Strategy, Self-Efficacy, and Interest at Time 1

<i>DV</i>	<i>IV</i>	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p-value</i>	<i>Adj. R²</i> (<i>ES</i>)
Performance	L1 SE	0.01	0	4.56	<.0001	0.53
	Age	0.01	0.02	0.41	0.68	
	TM	1.37	0.2	6.77	<.0001	(5.98)
	TL	1.12	0.24	4.68	<.0001	(2.65)
	TJ	0.87	0.21	4.15	<.0001	(3.18)
	TA	-0.46	0.23	-2.03	0.04	(1.20)
	TB	0	.	.	.	.
Planning	L1 SE	0.36	0.06	5.64	<.0001	0.25
	Age	1.51	0.69	2.18	0.03	
	TM	13.81	5.65	2.44	0.02	(2.16)
	TL	8.62	6.68	1.29	0.20	(0.73)
	TJ	12.25	5.83	2.1	0.04	(1.61)
	TA	1.61	6.34	0.25	0.80	(0.15)
	TB	0	.	.	.	.
Monitoring	L1 SE	0.44	0.07	6.71	<.0001	0.26
	Age	0.15	0.71	0.21	0.83	
	TM	11.61	5.76	2.02	0.05	(1.78)
	TL	8.23	6.81	1.21	0.23	(0.68)
	TJ	2.62	5.94	0.44	0.66	(0.34)
	TA	3.82	6.46	0.59	0.55	(0.35)
	TB	0	.	.	.	.
Revising	L1 SE	0.45	0.07	6.26	<.0001	0.23
	Age	0.56	0.77	0.74	0.46	
	TM	11.46	6.27	1.83	0.07	(1.61)
	TL	5.93	7.41	0.8	0.42	(0.45)
	TJ	4.26	6.46	0.66	0.51	(0.51)
	TA	1.92	7.03	0.27	0.79	(0.16)
	TB	0	.	.	.	.
Retrieving	L1 SE	0.39	0.07	5.71	<.0001	0.21
	Age	0.79	0.74	1.06	0.29	
	TM	9.42	6.07	1.55	0.12	(1.81)
	TL	3.99	7.18	0.56	0.58	(1.00)
	TJ	1.64	6.26	0.26	0.79	(0.73)
	TA	2.52	6.81	0.37	0.71	(0.84)
	TB	0	.	.	.	.
Compensating	L1 SE	0.43	0.06	6.71	<.0001	0.27
	Age	1.17	0.68	1.71	0.09	
	TM	8.3	5.59	1.49	0.14	(1.31)
	TL	6.82	6.6	1.03	0.30	(0.58)
	TJ	7.5	5.76	1.3	0.19	(1.00)
	TA	-3.12	6.27	-0.5	0.62	(0.29)
	TB	0	.	.	.	.

Table 16 (continued)

DV	IV	b	SE	t	p-value	Adj. R ² (ES)
SE ^a	L1 SE	0.03	0	9.43	<.0001	0.48
	Age	0.06	0.03	1.97	0.05	
	TM	0.69	0.24	2.92	0.00	(2.55)
	TL	0.51	0.28	1.81	0.07	(1.02)
	TJ	0.29	0.24	1.19	0.24	(0.91)
	TA	-0.34	0.27	-1.27	0.21	(0.75)
	TB	0				
II	L1 SE	0.02	0	6.33	<.0001	0.32
	Age	0.14	0.03	4.16	<.0001	
	TM	0.69	0.27	2.54	0.01	(2.22)
	TL	-0.06	0.32	-0.2	0.84	(0.11)
	TJ	0.69	0.28	2.46	0.01	(1.89)
	TA	0.59	0.3	1.95	0.05	(1.15)
	TB	0				
CI	L1 SE	0.01	0	2.98	0.00	0.21
	Age	0.03	0.04	0.74	0.46	
	TM	0.98	0.29	3.36	0.00	(2.94)
	TL	0.83	0.34	2.42	0.02	(1.37)
	TJ	0.19	0.3	0.64	0.52	(0.49)
	TA	0.68	0.33	2.07	0.04	(1.22)
	TB	0				

Note. SE^a=English L2 writing self-efficacy; DV=Dependent Variable; SE^a=English L2 writing self-efficacy; II=Instrumentative Interest; CI=Communicative Interest; TM=Teacher M; TL=Teacher L; TJ=Teacher J; TA=Teacher A; TB=Teacher B (reference group); ES=Effect Size.

The results from nine regression models suggested that all of the variables included in the analyses have significant positive relations with students' L1 writing SE at Time 1. Interestingly, L1 writing SE, as an indicator of L1 prior knowledge, had significant relations with two interest factor scores (i.e., II and CI; see Table 16), whereas L2 writing prior knowledge score based on the grammar and structure test was *not* significantly related with the two interest factor scores (Table 14).

In other words, knowledgeable students in L2 writing did not always enjoy learning L2 writing or communicating through L2 writing. However, those who were confident in their L1 writing were interested in learning various L2 writing skills. This result might have been partially ascribable to measurement type. That is, the L1 writing

SE measure was a type of self-reports, as the interest measure was formed. In contrast, the L2 writing prior knowledge test was based on multiple-choice questions, which was quite different from the way in which the interest measure was constructed. Regardless of this discrepancy between forms of the two comparable measures (i.e., L1 writing SE versus L2 writing grammar and structure test), one might infer that L1 writing self-efficacy, as an indicator of L2 prior knowledge, significantly determined L2 writing development in terms of SE, interest, performance, and strategy uses.

At Time 3, like English L2 prior knowledge effects, Korean L1 prior knowledge was significantly related with self-efficacy, $b=0.02$, $SE=0$, $t=4.67$ and the five strategies (planning, $b=0.26$, $SE=0.08$, $t=3.11$; monitoring, $b=0.24$, $SE=0.08$, $t=3.17$; revising, $b=0.32$, $SE=0.08$, $t=3.98$; retrieving, $b=0.22$, $SE=0.07$, $t=2.91$, compensating, $b=0.28$, $SE=0.08$, $t=3.41$). Effects of Korean L1 writing prior knowledge on performance and interests at Time 1 (see Table 16) disappeared at Time 3 (see Table 17). Likewise, all the relations between Korean L1 prior knowledge and the nine dependent variables were positive. Korean L1 prior knowledge explained 60 % of L2 writing performance at Time 3 in comparison with 53% of L2 writing performance at Time 1. Korean L1 writing knowledge as well as English L2 writing knowledge appeared to explain a considerable amount of variance of L2 English writing performance both at Time 1 and Time 3.

Table 17

Effects of Korean L1 Writing Prior knowledge on Performance, Strategy, Self-Efficacy, and Interest at Time 3

<i>DV</i>	<i>IV</i>	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p-value</i>	<i>Adj. R2 (ES)</i>
Performance	L1 SE	0	0	0.94	0.35	0.60
	Age	0.03	0.02	1.17	0.24	
	TM	1.56	0.19	8.19	<.0001	(5.90)
	TL	1.96	0.25	7.98	<.0001	(3.73)
	TJ	2.02	0.19	10.43	<.0001	(6.49)
	TA	-0.11	0.22	-0.49	0.63	(0.24)
	TB	0				
Planning	L1 SE	0.26	0.08	3.11	0.00	0.15
	Age	0.88	0.79	1.11	0.27	
	TM	10.58	6.25	1.69	0.09	(1.22)
	TL	18.76	8.07	2.33	0.02	(1.09)
	TJ	14.55	6.38	2.28	0.02	(1.42)
	TA	-0.95	7.29	-0.13	0.90	(0.06)
	TB	0				
Monitoring	L1 SE	0.24	0.08	3.17	0.00	0.16
	Age	0.83	0.72	1.15	0.25	
	TM	11.47	5.71	2.01	0.05	(1.45)
	TL	21.67	7.37	2.94	0.00	(1.38)
	TJ	11.88	5.82	2.04	0.04	(1.27)
	TA	3.01	6.66	0.45	0.65	(0.22)
	TB	0				
Revising	L1 SE	0.32	0.08	3.98	<.0001	0.14
	Age	0.46	0.76	0.6	0.55	
	TM	6.99	6	1.17	0.25	(0.84)
	TL	11.69	7.74	1.51	0.13	(0.71)
	TJ	4.52	6.12	0.74	0.46	(0.46)
	TA	-2.56	6.99	-0.37	0.71	(0.18)
	TB	0				
Retrieving	L1 SE	0.22	0.07	2.91	0.00	0.11
	Age	0.61	0.71	0.86	0.39	
	TM	10.11	5.57	1.81	0.07	(0.03)
	TL	12.67	7.19	1.76	0.08	(0.29)
	TJ	11.37	5.68	2	0.05	(0.01)
	TA	1.91	6.5	0.29	0.77	(0.25)
	TB	0				
Compensating	L1 SE	0.28	0.08	3.41	0.00	0.12
	Age	-0.09	0.78	-0.11	0.91	
	TM	5.98	6.11	0.98	0.33	(0.69)
	TL	9.24	8.01	1.15	0.25	(0.53)
	TJ	7.19	6.25	1.15	0.25	(0.69)
	TA	-5.79	7.1	-0.82	0.42	(0.40)
	TB	0				

Table 17 (continued)

DV	IV	b	SE	t	p-value	Adj. R2 (ES)
SE ^a	L1 SE	0.02	0	4.67	<.0001	0.23
	Age	0.04	0.04	1.15	0.25	
	TM	0.59	0.3	1.97	0.05	(2.55)
	TL	0.83	0.38	2.15	0.03	(1.02)
	TJ	0.7	0.3	2.31	0.02	(0.91)
	TA	-0.05	0.35	-0.15	0.88	(0.75)
	TB	0	.	.	.	.
II	L1 SE	0	0	1.03	0.30	0.08
	Age	0.05	0.04	1.25	0.21	
	TM	0.29	0.32	0.9	0.37	(2.22)
	TL	0.62	0.42	1.48	0.14	(0.11)
	TJ	-0.02	0.33	-0.05	0.96	(1.89)
	TA	-0.31	0.38	-0.81	0.42	(1.15)
	TB	0	.	.	.	.
CI	L1 SE	0.01	0	1.93	0.06	0.14
	Age	0.1	0.04	2.48	0.01	
	TM	0.84	0.32	2.63	0.01	(2.94)
	TL	1.01	0.41	2.46	0.01	(1.37)
	TJ	0.7	0.33	2.13	0.03	(0.49)
	TA	0.49	0.38	1.31	0.19	(1.22)
	TB	0	.	.	.	.

Note. SE^a=English L2 writing self-efficacy; DV=Dependent Variable; SE^a=English L2 writing self-efficacy; II=Instrumentative Interest; CI=Communicative Interest; TM=Teacher M; TL=Teacher L; TJ=Teacher J; TA=Teacher A; TB=Teacher B (reference group); ES=Effect Size.

Results from Interview Data

An additional analysis of interview data concerning students' self-efficacy, interest, and strategies was conducted. This section describes correspondences between data from the self-reported responses and the interview with regard to the three major variables (self-efficacy, interest, and strategy uses). Also, students' reports as to how they calibrated their own confidence (or non-confidence) with English writing at that level are summarized.

Similarities between the Interview Data and the Self Report Data

Problems that may arise from conducting data analysis with one type of measurement have been raised (Chae et al., 2010). To address this concern in the current

investigation, I conducted one-on-one interviews with 15 students who agreed to be interviewed. For strategy use, I first coded the 15 students' recall data for strategy use using He's Taxonomy of Composition Strategies (see Table 2). The five strategy types (planning, monitoring, retrieving, revising, and compensating) were coded whenever students' description of the strategy types rose during their interviews. Then, the codes were compared to what was reported in other self-report inventories. For instance, the first and the second sentences (e.g. "I took a moment to think about it. About strengths and weaknesses") in the following transcription from a student's interview data were coded as an instance of "planning." The coding unit was based on activity level as the student stated rather than at the sentence or word level. Thus, the following verbal report contained four instances of planning (an activity break was marked with "/"). This coding activity was performed until the end of the student's interview data.

First, I received the question... I took a moment to think about it. About strengths and weaknesses. / First, I organized what should be translated, like an abstract in Korean. The topics that I would like to talk about./ I thought about a topic sentence that I want to address. What are good things and bad things. First, focusing on strengths. Because I thought (school uniform policy is) bad./ So, I planned sentences, and I just wrote what I wanted to say. [HHS]

Overall, the interview data seemed to support the self-report data. However, some different reports for revising were observed. Specifically, all students reported revising (marking 0 or near zero on the items regarding revising strategy) in the self-report inventory at each of the three time points. However, a considerable number of the interviewed students never mentioned employing the revising strategy. The average self-reported revising score for those who failed to mention revising in their interviews was 58.33 at Time 1 and 61.00 at Time 3.

Students' responses were varied by person and by measurement type. That is, some students reported more frequent strategy use in the regular survey sessions, as opposed to their interview data and compared to their colleagues' reports during the interview. For example, one interviewed student recalled using the retrieving strategy on repeated occasions (i.e., five times), but her self-reported score from survey session was just 64 out of 100. By comparison, another interviewed student recalled relatively less frequent usage of the retrieving strategy (i.e., twice), although his self-reported score was 67; that is, comparable to the student who recalled using this strategy frequently. Thus, for this strategy in particular, participants' perceptions of the strategy uses differed between the self-report scale and the interview.

In contrast to students' writing strategy uses, motivation constructs recorded in self-report and interview data tended to support each other. While the records from self-report data and interview data did not perfectly match, the two data sets were similar. For instance, one student's mean score of self-reported self-efficacy was 79.5 at Time 3, and his evaluation on his self-confidence was 75 during the interview.

Students' Own Explanation for Determinants of Self-Efficacy

To further investigate determinants of students' self-confidence for their L2 writing, the interviewer asked an additional question about potential factors respondents thought may have influenced their L2 writing self-efficacy ratings. The following factors emerged as the most common from the interviewees' anecdotes.

Difficulty in translation of thoughts into English languages. Six interviewees pointed to their low vocabulary level and three interviewees expressed difficulty in translating their thoughts into English languages as determinants on their low self-

efficacy. This phenomenon was typical for these novice L2 writers, who sought more knowledge about how to write short essays with few sentences, rather than long papers with complex paragraph structures. They also seemed to struggle with finding proper English words to express thoughts they had in their mind on the basis of Korean language.

When I look back English that I write, that looks like something that a little child wrote. You know Korean language has more words (than English). I need to express them in English. But, with my English vocabulary level, it is hard to express them in English. I do not know many English words. And I cannot deliver the nuance I want to deliver. I feel stuck. [LYJ]

As seen in their interviews, the participants often followed a translation process typically seen in L2 writing (Uzawa, 1996). First, they formed their thoughts in Korean and then translated the thoughts into written English. In this process, they might naturally confront difficulty in switching words and sentences between these two language as characteristics of the Korean language are quite different from the English language in terms of grammars and rhetorics (e.g., English relies more on verbs, whereas Korean relies on adjectives and adverbs for elaboration; paragraphs in English often start with a topic sentence whereas the topic sentence often concludes a paragraph in Korean).

Difficulty of grammar and syntax. Four participants expressed difficulties with grammar and syntax. They believed that there existed a typical mode of English L2 composition distinguishable from Korean writing. They believed knowing that L2-specific composition method was critical for better English writing and knowledge regarding writing topics have relatively less importance to achieve good English writing.

I can think and organize contents in Korean language. So, I am confident with what is written. But the grammar... I'm not sure about how to write.-grammar or something like that. [MOW]

The significance of grammar and syntax knowledge in L2 writing development was not addressed only by the interviewees. There have been strong debates of grammar

and error-correction instruction in L2 writing literature (Bitchener, 2008; Ferris, 2004; Truscott, 1996; Truscott & Hsu, 2008). Regardless of inconclusiveness of its effects on L2 writing development, it has been suggested that, at a minimum, teachers' correction of writing errors appears effective for fostering students' writing improvement (e.g., Bitchener, 2008). The students' difficulty in grammar and syntax captured in the current study suggests that such grammar instructions should not be neglected in L2 writing pedagogy either.

Lack of experiences. Interviewees often mentioned their lack of experiences with English L2 writing as contributing to their low L2 writing performance. They believed they were less proficient in English L2 writing because they were rarely exposed to L2 writing instruction or L2 writing opportunities. As one student reported in the following statement, most of the students in this study began English writing after they entered college. Even their first L1 writing learning experience was traced back to their last years of high school.

HHS: Korean educational curriculum does not offer many chances to learn English writing. It may not be just my case. Other friends may also feel the same problem. Even college students, they need to learn how to write in English earlier.

Interviewer: When was the first time you learned writing?

HHS: I had no chance to learn writing from public education system. There was a private program where my friends and I learned writing. That was the first time. When I was high school senior.

In addition, a considerable number of students stated that they had no chance to be rewarded for their L2 writing performance. This group of students indicated their high confidence of L1 writing as opposed to low L2 writing self-efficacy was attributable to rewards, prizes, and compliments offered by others including teachers, colleagues, and

parents. They seemed to have high extrinsic motivational orientations for learning English writing.

I think I am good at Korean writing. I have confidence. I have submitted a paper to a contest. And my writing was awarded. That is why. [HKH]

I have confidence writing in Korean language because I was awarded for an essay I submitted at school. If a writing topic was given to me for a Korean writing, I am confident (to write a good essay). If I write the same topics in Korean language, my writing would be very good. [PEJ]

Based on the quantitative study result and 15 interviewees' anecdotes, more public English L2 writing programs were judged as valuable by these Korean college students. The one-semester-long L2 writing courses provided in the study settings caused significant improvement in the participants' L2 writing and subsequently encouraged their English L2 writing self-efficacy (see Table 6). Students reported that their low-level performance was attributable to their low-level writing experiences in English language. It seems that for these participants, assigning more time and effort to L2 writing education would better equip Korean students to communicate effectively in writing in English.

In contrast to early predictions, potential contributors to students' self-efficacy differed neither by students' performance level nor by their self-efficacy level in terms of what they shared during their interviews. That is, regardless of students' level of L2 writing proficiency and self-confidence, the causes that interviewees pointed to as determining their self-evaluation on L2 writing converged into a few points. As shown in the interview data, three points emerged regarding students' own explanation on their low self-efficacy with L2 writing: the interviewees struggled with translating their Korean thoughts into English sentences. They seemed extrinsically motivated by outside

sources (e.g., teachers and awards) than by their individual interests in L2 writing. They tended to concern mechanical errors and sentence structures.

CHAPTER V

SUMMARY, IMPLICATIONS, AND FUTURE RESEARCH

Summary and Conclusions

This study investigated the understanding of changing learner characteristics in a context of L2 writing development. Specifically, I examined the influence of Korean college students' initial motivation on their L2 writing development together with the relations among other learner characteristics including strategy use, writing performance, self-efficacy, interest, and prior knowledge. In this section, I revisit the characteristics relevant to Korean college students' L2 writing over time, and at each time point, by summarizing the results reported in Chapter 4. The implications of these outcomes for research and practice, and the limitations of the present study will be considered.

Self-Efficacy, Interest, and Students' Changes in L2 Writing

As described in Chapter 2, the L2 literature pertaining to motivation has largely centered on goals, self-efficacy, and interest. Of these constructs, the current study focused on self-efficacy and interest, two constructs that have received little attention by L2 writing researchers. The concepts and the functions of motivation were framed by the MDL. Although strong relations between *general* L2 development and the two motivation constructs were documented in L2 research (Chularut & DeBacker, 2004; Erçetin, 2010; Lin & Betz, 2009; Liu & Jackson, 2009), none of the examinations were specific to L2 *writing* contexts. The effect of self-efficacy, instrumentative interest, and communicative interest were particularly examined with regard to L2 writing prior knowledge and outcomes (i.e., performance and strategies) changes over the course of a

semester using longitudinal data. This was addressed in research question 1 and at each separate time point using a cross-sectional data, as addressed in research question 2.

As predicted by the framework, findings from this study suggested that students' motivational orientation significantly predicts Korean college students' L2 writing performance at the beginning of a semester. This result was consistent with the previous study regarding L2 acquisition and general learning. Students' L2 proficiency develops as their self-efficacy is encouraged or vice versa (Chularut & DeBacker, 2004; Lin & Betz, 2009; Liu & Jackson, 2009). Self-efficacy (Bandura, 1997) has been known to be a prime factor enhancing students' academic performance (Linnenbrink & Pintrich, 2002) in various domains, including science (Andrew, 1998), educational psychology (Phan, 2009), and language (Mills, Pajares & Herron, 2007). The positive influence of self-reported self-efficacy at Time 1 on performances can be found in extensive L2 areas including L2 reading (Chularut & DeBacker, 2004), students' perceived level of English L2 proficiency (Lin & Betz, 2009), and the L2 writing examined in the current study.

In general, studies found positive effects of self-efficacy (e.g., Linnenbrink & Pintrich, 2002; Mills, Pajares & Herron, 2007) and interest (Dewey, 1903; Kerschensteiner, 1922) on academic achievement. Research specific to L2 writing (Leki, 2007) reported a similar positive relation between motivation and performance. While Leki's (2007) study highlighted goals rather than self-efficacy or interest, writers' L2 writing development accompanied their positive motivational changes, such as being more interested in accomplishment of their own task purposes and diminishing superficial features of tasks. L2 writing and the pertinent motivation turned out to coherently evolve as seen in the literature and in the current study. L2 students became

more self-efficacious and more interested in L2 writing as they developed in their L2 writing.

However, the influence of initial self-efficacy on growth rate of L2 proficiency, specifically L2 writing performance level in this study, was *negative*. Neither the previous studies nor the current study provided evidence that students' initial motivation enhances L2 writing achievement. The L2 literature has typically used cross-sectional data to establish this general pattern. Thus, none of the previous studies could provide foundations to concur that the positive impact of self-efficacy lasted *over time* in accounts of the participants' different initial proficiency levels. Even the findings from the literature that indicated positive relation between self-efficacy and L2 proficiency (e.g., Linnenbrink & Pintrich, 2002; Mills, Pajares & Herron, 2007) did not necessarily imply that participants' self-efficacy predicted rate of L2 proficiency *changed* over time. To overcome this limitation, the current study incorporated multiple time sampling for L2 writing self-efficacy and performance *over the course of a semester*. However, the end result was not significant and even negative. Self-efficacy as well as interest constructs reported at the beginning appeared not to be related with the degree to which L2 writing performance develops over time.

Why would negative effects of motivation on growth rate appear despite the fact that the theoretical ground of the current study anticipated motivation would develop together with L2 performance development? Several explanations of the negative effects of motivation constructs on the slope (i.e., growth rate of writing performance) are available. For one, the restricted data collection might limit generalization of the actual results to the target population. Measurement in the current study was conducted within

only a limited period of time and to students from a few schools. This sampling issue might address less analysis power with low variability. The limitation might pose more difficulty in depicting what would actually happen for the entire group of Korean college students over the longer course of their L2 writing development. Second, the negative effects on growth of motivation might be an artifact of the curriculum provided to the students. That is, L2 writing programs in this study might be insufficient to engage students at various interest levels and self-efficacy levels. Finally, there might have been gaps between students' perceptions of what their responses should be and what was supposed to be measured by the actual instrument.

Interest was significantly related with students' L2 writing performance at the beginning of the semester. This finding was somewhat consistent with what was discussed in previous studies with regard to general academic achievement. For instance, an empirical research by Sorić and Palekčić (2009) into role of interest indicated the positive effects of interest-based learning on academic achievement. However, upon a closer look, there were several minor differences in terms of study designs between Sorić and Palekčić's (2009) study and the present investigation. In the Sorić and Palekčić's (2009) study, academic development was enhanced by forcing an intervention particularly designed to encourage students' academic interest. In the current study, data for students' interest and L2 writing performance were collected in a relatively natural setting. Moreover, the outcome variables were different between these two studies. Sorić and Palekčić's (2009) study was conducted on the basis of general grades reported by the students, whereas the present study used L2 writing scores obtained from Korean L2 college students' actual writing performance.

L2 writing scholars have distinguished different kinds of goals (e.g., Leki, 2007; He, 2005). Based on the underlying structure of goals, they attempted to reveal what kinds of strategies were typically more used by L2 writing students with different goal types. In this study, I focused on the effects of self-efficacy and interest on L2 writing outcomes rather than validating a distinction of the separate goal types. Thus, it was hard to determine whether a typical goal was more associated with different types of strategy use or L2 writing performance than other types of goals. However, I was able to capture a similar construct to goals in the dataset as a byproduct of the study. Instrumentative interest (II) was similar to goals as described in earlier chapters. Using II as a proxy for goals, one can conclude the Korean college students in this study had stronger goals in comparison with communicative interest. Patterns of the associations between goals and L2 writing outcomes (i.e., performance and strategies) varied between the time points.

The cross-sectional analyses and the longitudinal data analyses of this study concluded that the contributions of motivation constructs to L2 writing performance depended on *time*. For instance, some significant relations were observed both at Time 1 and at Time 3, but other relations were statistically significant at Time 1 but not at Time 3 (i.e., performance and self-efficacy). This finding, that the motivation-L2 writing performance relations varied by time, may be an important addition to the literature. As repeatedly mentioned, researchers in the previous L2 motivation studies collected data at a certain time point, and the results rarely clarified when the data collections were performed. Therefore, it is hard to determine how motivation and L2 writing performance differently interplay at each time. The potential misleading findings due to the limited time sampling were somewhat overcome by the current study design.

Strategic Processing in L2 Writing

Research has been carried out in L2 writing strategy use at various levels including sentence and paragraph levels, writing processes, coping strategies, and self-regulatory strategies (see Chapter 2). Of these studies, He's (2005) *Taxonomy of Composition Strategies* was specifically adopted for assessing Korean college students' L2 writing strategy. The categorization seemed to have been established through a valid procedure, and contained items based on a proper grain size to explain how strategy use is associated with other L2 writing factors. In contrast, measurement used in other previous studies looked inappropriate for the current study because the scales were either overly fine grained (Kang, 2005, 2006; Yasuda, 2004) or coarsely grained (Li, 2006; Okjamura, 2006). For example, L2 writers' activities were observed under the term "strategy" in Kang's (2005, 2006) study, but the strategies were communication skills shown in written texts rather than L2 students' actual activities performed for composition developments. Yasuda's (2004) study purposefully focused on revision strategies, which intentionally excluded investigations on other competing strategies. Li's study (2006) documented how a graduate L2 writer achieves his/her publication by coping with members in an academic community. These studies are all meaningful in that they presented important factors and the relations among the factors with a specific purpose of improving L2 writing through gaining readerships (Okamura, 2006), achieving better revisions (Yasuda, 2004), or being accepted by a community (Kang, 2006).

Unfortunately, due to the grain sizes upon which the studies were based, it is difficult to address effects of particular strategies that function better than others in L2

writing development or what type of strategy is more or less related to other L2 writer characteristics (i.e., motivation and performance). Using He's strategy taxonomy, the current study could examine relations between L2 writing strategies and other L2 writing learner characteristics (i.e., motivation and writing products).

He's (2005) finding was replicated in the current study. L2 writers' motivational changes occurred along with L2 writing strategy changes. He (2005) suggested variations of strategy use by students' goal orientations. Similarly, there were variations in Korean college students' uses of L2 writing strategies by their motivational orientations in the present study. However, the motivation constructs of concern were different between He's study and the present study. Specifically, He (2005) found students' strategy use varied as a consequence of their goal orientations. The current study explored the patterns of students' strategy use with regard to students' self-efficacy and interest. Although instrumentative interest was assumed to serve as a proxy for goals by its operational definition, the distinction between mastery goals and performance goals were not attempted in the present study. Uses of the different motivation constructs and the different specification levels for goals between He's study and the present study necessitates subsequent examination of the relations between motivation and writing performance before practical implications can be reached.

The present findings, based on cross-sectional analyses, indicated all of the strategies used at Time 1 were significantly related with students' self-efficacy at that time. In comparison to interest, self-efficacy strongly predicted strategy use in reference to the significance level and to the effect size. Students who often planned and monitored their English L2 writing at both Time 1 and Time 3 were significantly interested in

English L2 writing as a communicative means. Retrieving and compensating were frequently found among the students who were interested either in instrumentative elements or in communicative elements at the beginning but not at the end of the semester. The discussions on self-efficacy and interest effects on L2 writing development were not present in He's study. Effects of different goal settings, instead, were described in He's study.

The finding about the positive association between L2 writing strategy use and prior knowledge is a new addition to the literature as well. According to the MDL, positive relations between knowledge and strategy uses would appear as these two key forces develop together over time. By examining the prior knowledge, strategy uses, and their relations at different time points, the current study described what different types of learner characteristics occurred along with their developmental changes, which were never attempted in prior research on L2 writing. While a previous study conceptualized strategic knowledge as a part of L2 prior knowledge (McCutchen, 1986), the conceptual foundation was not supported by empirical studies. Other research was conducted into the influence of prior knowledge on L2 writing performance (Ferris & Roberts, 2001; Schoonen et al., 2003) but not on L2 writing strategy. In the current study, strong positive relations between various strategies and prior knowledge, regardless of language bases, were identified. Both the relations between L1 writing prior knowledge and types of strategy use, and between L2 writing prior knowledge and types of strategy use were statistically significant. This suggests that both the L1 and L2 writing prior knowledge helped the students to more frequently use L2 writing strategies.

In conclusion, it was hard to judge consistency between the present study and the collective literature. Most of the previous studies were differed from the current study in terms of grain-size of the measurement. He's study (2005) provided a useful strategy measurement tool with a proper grain size. However, the study was distinguished from the current study in terms of variables incorporated for an examination of their relations to strategies (i.e., motivation constructs). In He's (2005) study, writer's different goal orientations turned out to predict L2 writing strategy use. In the current study, self-efficacy and interest determined types and levels of L2 writing strategy use. It is necessary to differentiate these studies in finding pedagogical and practical implications due to the difference in measurements and variables of concern.

Prior Knowledge in L2 Writing

Prior knowledge was predicted to have positive relations with other learner variables because individual interest, knowledge, deep-processing strategies would be associated with increasing subject-matter knowledge within the MDL. Studies on academic achievements, have reported prior knowledge as being positively related with motivation (Miller-Wietecha, 2002), idea construction strategy (Afflerbach, 1990), and decision-making strategies (Betsch, Brinkmann, Fiedler, & Breining, 1999). Chae et al.'s (2009) study indicated students referred to past experience and prior knowledge when they performed L2 writing . However, directions of the relation between prior knowledge and L2 writing improvement depended on whether the studies focused on L2 prior knowledge or L1 prior knowledge (Chenoweth & Hayes, 2001; Schoonen et al., 2003) and whether they highlighted grammar knowledge or structure of writing (Ferris & Roberts, 2001). Learners' prior knowledge on the target language was found to be

effective in developing writing skills in the target language (Chenoweth & Hayes, 2001). On the basis of these discussions and findings, the current study explored whether prior knowledge was positively associated with L2 writing performance, strategy use, and motivational orientation. To identify L2 writing prior knowledge, an English grammar and syntax knowledge measurement form based on a past TOEFL grammar test was used. L1 Korean writing self-efficacy measure was used as an indicator of their L1 writing prior knowledge.

The findings from the current study provided some empirical evidence for contribution of prior knowledge on L2 writing development. While there were a few exceptions (i.e., insignificant relation between L2 prior knowledge and students' interest at Time 1), findings generally indicated L1 and L2 writing prior knowledge have significant relations with L2 writing motivation, performance, and strategy use. This finding is consistent with Schoonen et al.'s (2003) and Chenoweth and Hayes's (2001) studies but not with Ferris and Roberts's (2001) study reviewed in Chapter 2. Although Schoonen et al. used eighth-grade Dutch students, whose characteristics are quite different from the sample characteristics of the present study, they concluded a similar result with the present study. L2 writers' grammatical and orthographic knowledge, and their L1 writing knowledge positively functioned in their L2 writing proficiency. Prior L2 grammar knowledge and L1 prior knowledge also seemed to positively function in the present study. A positive relation between prior L2 writing knowledge and L2 writing performance was also found in Chenoweth and Hayes's (2001) study.

However, Ferris and Roberts's (2001) study was inconsistent with the present study, Schoonen et al.'s (2003), and Chenoweth and Hayes's (2001) studies. The college

students' prior L2 grammar knowledge did not explain the error correction activities (Ferris & Roberts, 2001). The different findings from the other three studies may be due in part to loss of explanatory power as a consequence of narrowing down outcome variables in Ferris and Roberts's study (i.e., only focusing on error correction).

In summary, the current empirical examination addressed the research questions based on the gaps found in the literature. Contribution of students' motivational orientation including initial self-efficacy and interest to L2 writing development was found to exist. Influence of strategic process in L2 writing was examined applying He's (2005) *Taxonomy of Composition Strategies* to the measure. Past empirical and theoretical studies regarding influence of prior knowledge on numerous learner factors were further extended in the current study. The conclusions drawn from the current study have important implications for research and educational practice.

Implications

Three-time point longitudinal data collection and analyses over a semester on Korean college students' L2 writing prior knowledge, performance, interest, self-efficacy, and strategy use allowed for an exploration of Korean college students' characteristics as an L2 English writing learner and interplay of the learner characteristics, that develop over time. The findings from this investigation will be helpful to educational researchers who are endeavoring to design a methodologically solid study as well as to educators seeking to promote L2 writing development for Korean college students

Research

Measuring changes of learner characteristics over time. For those who are planning to undertake L2 academic writing research, one of the most key outcomes of

this investigation is the contributions it makes to the measurement of L2 writing learner variables in consideration of *time*. In particular, the current study are expected to contribute to the literature regarding Korean college students' attributes and the relations among the attributes in L2 writing development that have not been well addressed in the extant research. For instance, prior motivation studies in L2 writing area have been exclusively based on *goals* with little consideration of other motivation constructs, *self-efficacy* and *interest*. Further, studies with small sample size and limited designs have failed to effectively show changes of the learner characteristics over time.

Comprehensive investigations of knowledge, motivation, strategy, and performance have not been attempted in the prior study. These limitations were overcome throughout the current research. Various cognitive and motivational measures in the study of L2 writing were included to provide better evidential foundations with regard to learner characteristics in L2 writing, which distinguishes the current investigation from the majority of studies in L2 writing literature. Based on the extant literature, I established several instruments for measuring English L2 writing performance, prior knowledge, self-efficacy, interest, and strategy use and made decisions on the levels of each measurement to be a base of this empirical study. For example, He's *Taxonomy of Composition Strategies (TCS)* was utilized in the study as the TCS has been established to associate students' strategy use to levels of the students' L2 writing performance. The category already has been used in various educational activities related to L2 strategy use with an acceptable validity level (He, 2005).

The decision to collect data at three time points allowed the study findings to capture L2 writing students' developmental changes. As Alexander, Schallert, and

Reynolds (2008) argued, “a fundamental characteristic of what it means for humans to learn is that *change* happens” (p. 5). Whenever a researcher conducts a study regarding learning, time on some temporal scale should be an essential element. The time issue may have salience in L2 writing research because of the desirability of finding factors that promote quicker writing development. If a study articulated results over time, the researcher of the study might take into account the essential inquiry of learning that is *change*. Such arguments, however, have often been neglected in past L2 writing studies. Findings have been either fairly descriptive or limited to capturing static learning characteristics as discussed by Chae, Fox, Alexander, and List (2010) and in Chapter 1 of this dissertation. In the current study, I sought to answer the questions for how students change over time with an appropriate research design and analysis techniques.

Latent growth modeling techniques based on structural equation modeling (SEM) was a useful analytic method for this particular data and research questions particularly framed in the Model of Domain Learning (Alexander, 1998). The growth curve modeling allowed a more thorough description of developmental changes of individual students (Hancock & Lawrence, 2006). With the growth curve model in SEM, examination of effects of the three motivation orientations on performance scores at the beginning, and on growth rate of the performance indicated all three of the initial motivation constructs had statistically significant positive relation with performance scores at Time 1. However, the effects on developmental changes of student performance were found only with regard to interest variables. More interestingly, the relations between two interest factor scores and performance change rates were negative. That is, the more interested in L2 writing students were, the less their L2 writings

develop over time. One point increase in students' initial communicative interest score led to a 0.33 unit decrease in the L2 writing performance growth rate. Path coefficients from initial instrumentative interest to L2 writing performance slope (change) was also negative.

The growth curve modeling permitted examination of students' demonstrated changes with adjustment of their initial conditions rather than simply providing students' performance levels varying at each time point. Using the growth curve modeling, I could measure their writing performance changes while accounting for their individual differences at their different rates (Hancock & Lawrence, 2006,). This is a process routinely neglected in traditional methods such as analysis of variance (ANOVA), multivariate analysis of variance (MANOVA), and analysis of covariance (ANCOVA). Growth curve modeling also does not restrict students' growth pattern to just being linear but allows it to be quadratic or logarithmic. The way this study was designed with data collection at three time points provides a unique perspective not typically envisioned in the L2 literature.

Self-efficacy and interest in L2 writing study. Another disciplinary finding regards the motivation constructs (i.e., self-efficacy and interest) in L2 writing learning context. Previous studies have documented that self-efficacy and interest are associated with L2 proficiency. For example, studies documented that these two motivation constructs accompany L2 reading skills (Chularut & DeBacker, 2004), text recalls (Erçetin, 2006), and verbal skills (Liu & Jackson, 2009). From these previous works, L2 writing was also assumed to have significant relations with self-efficacy and interest because language components are not independent of each other (Kaufers, Hayes, &

Flower, 1986). However, to assure the extensive discussion for function of motivation in L2 writing, further research into L2 writing motivation is warranted. It is necessary to acquire evidence regarding the specific nature of the relations between motivation and L2 writing proficiency applicable specifically to L2 writing as well as to other L2 areas. This study identified significant contributions of the motivation constructs to both the L2 writing performance and to strategy use.

In terms of measurement construction, a three-factor model of self-efficacy and interest was suggested through factor analysis. Eighteen motivation items were reduced to three underlying constructs (i.e., self-efficacy, instrumentative interest, and communicative interest). Of these constructs, instrumentative interest appeared related to purpose of the coursework and was assumed to reflect goals in the current study. Each of the three factors was significantly positively related with L2 writing strategy use as well as L2 writing performance. The findings from multiple regression analyses highlighted the need for researchers' attention to self-efficacy and interest in L2 writing. For those who are planning to undertake L2 academic writing research, the systematic investigation on the extended motivation factors and the L2 writing outcomes may help to uncover relations among the variables that have received limited attention in the extant L2 writing literature. Consideration of the newly found factors into the studies are recommended for constructing more valid L2 writing literature.

Educational Practice

The study results can also benefit educational practitioners by presenting associations of the L2 writing outcomes and motivation constructs that are found in Korean college students enrolled in an ESL writing classes.

Understanding of self-efficacy and interest for L2 writing. Encouragement of students' interests and self-efficacy rather than focusing only on goal orientations may provide an alternative means for improving Korean college students' L2 writing skills. Although strong instrumentative interest, a conceptual proxy for goals, was found in the present L2 college students, the literature and the guiding framework supported self-efficacy and individual interest as core factors for their long-term development. Further, the Korean educational system seems insufficient to stimulate students' long-term and deeper goals. English writing is not a component of the national college entrance exam (i.e., KSAT), and most Korean students receive English writing instruction after entering college. Thus, it would appear that L2 writing would not be of particular concern to these students. The findings of the current study suggest that attention to interest and self-efficacy for developing Korean college students' L2 writing performance may be an effective approach to enhanced writing performance.

Investigation of self-efficacy and interest at multiple time points and their changes over time based on a systematic research design can also help identify when teachers particularly need to pay attention to students' motivation. The current investigation incorporated self-reported interests and self-efficacy over a semester. Latent growth curve model and regression analyses performed in the study demonstrated contributions of motivation to L2 writing outcome. The consideration of time contrasts to a mere description of surface gains from the beginning to the end of a coursework. The examination of changing responses associated with students' self-efficacy and interests, and their impacts on performance and strategy use should benefit practitioners by

showing the degree to which each motivational factor might play a differential role in students' writing outcomes over the course of instruction.

Need for stimulating individual interest. Another take-home message for practitioners is related to students' interest and prior knowledge. According to the current investigation, curricula relying on grammar and error-correction lessons seem to contribute to students' English writing performances. However, the effects of syntactic knowledge were not associated with students' interests in L2 writing in this study. The Korean L2 students with high prior-knowledge in this study were likely to perform better in English writing than their counterparts, whereas their interest was not significantly higher than students with low level prior knowledge. On average, students' interests decreased from the beginning to the end of the semester. Class instructions, which centered on grammar and error-correction, seemed to dampen students' interests. This may mean that additional efforts are necessary to substantially improve L2 writing for uninterested students.

Grammar instruction did not seem to be a necessary and sufficient condition for increasing competence in these L2 writers. All of the participants had been educated in Korea, and received English education that focused on grammar. The attention to grammar and error-correction appeared to positively function for the participants' L2 writing performance and self-confidence in this study. However, results indicated that students' individual interest was not encouraged. Korean students' interest in L2 writing appeared little related to the grammar and error-correction knowledge attained through the educational system. Analyses based on latent growth model suggested that students'

high level interest even reduced the growth rate of the students' performance in consideration of initial status of their writing performances.

As opposed to the weak relation between interest and knowledge found in this study, previous studies have documented interest as critical to academic development. According to the Model of Domain Learning (MDL; Alexander, 1998), development of one's academic knowledge accompanies their individual interests increment over time. The term individual interest in the MDL has a contrastive meaning to situational interest, which is "an piquing of attention sparked by events or features of the environment (Alexander, 2003, p.11)." Individual interest refers to interest both for one's daily activities (general interest) and for vocational and academic activities (professional interest). The interest measure constructed and used in the current study pertained to individual interest as conceptualized in the MDL.

An important question is why did the Korean students' interest decrease over time, although it has been discussed that learners gain more individual interest as their knowledge develops in an academic domain? One possible explanation of this question can be found in Dewey (1903)'s notion of pure-impure interests. Dewey referred to a theory of effort, "which substitutes the impure interest of fear of the teacher or hope of future reward for pure interest in the material presented (p.7)." Perhaps the Korean students' mind set at this level might have been occupied with impure interests. This impure interest would gradually be replaced with pure interest as students become more competent in an academic domain (Dewey, 1903).

The nature of the Korean L2 writing students' interests was also slanted toward instrumentative (i.e., grammatical and syntactic knowledge) rather than communicative

(i.e., exchanging emails with their colleagues or professors) interest. Students' interests were much higher for instrumentative components than for communicative components. Based on this finding, it is suggested that the usefulness of L2 writing in communicating with professors and colleagues in an academic community should receive greater attention. At the same time, interest in instrumentative components should be also maintained because grammar and error-correction appeared essential for achieving good L2 writing performances and building positive self-efficacy. As argued by Ellis (1997), to achieve ultimate success in an academic subject, students need both sides of interest. Interest should be encouraged in both terms of writing subject itself and writing as a means of communication in a relevant community.

Issues for Future Research

While the study attempts to overcome weaknesses found in previous research, there were several issues to consider before interpreting and applying the findings from the current study. Such considerations are related to limitations in sampling and research design.

Other language backgrounds. The sample used in the current study will restrict the generalizability of the findings to some degree. The participants were recruited from a few institutes where student demographic composition is biased. Because the research questions target a population of Korean L2 college students, this sample selection may pose a potential threat to external validity: due to the unique sample composition, application of the study result to L2 students in other countries or L1 writing students should be carefully considered. This current study was initially designed with an understanding of the lack of attention given to L2 writing within the Korean educational

system, particularly in the elementary and secondary schools. Thus, participants of the current study were intentionally limited to college students who have been or are presently educated in Korea. The restriction of sample characteristics calls for further research on other L2 writer populations. For instance, participants repeatedly pointed to their little knowledge of English grammar, difficulty of translating their thoughts into written English, and the lack of positive experience with use of written English as a causal effect of their low self-efficacy on L2 writing. It should be clarified whether the problems are unique for Korean college students or more common for general L2 writing learners.

The sample of this study was fairly homogeneous in terms of their language backgrounds and educational conditions. Korean public education system allows little diversity for students, although historically various educational reforms have been attempted to reflect individual differences (Park & Ban, 2005). A standard curriculum has been established and is used for compulsory education spanning elementary through high school in Korea. Schools are fairly homogeneous in terms of their physical environments with a front blackboard and lined desks and chairs facing the front. Students' potentials are evaluated based on the Korean SAT exam.

During the recent years, Korean government gradually transferred authority of student selection and rights for administrating their own entrance exam system to each college. Yet many colleges use KSAT for judging students' academic abilities and potentials. Korean students are trained to solve certain types of exam items where English reading and mathematics are core subjects. The Korean students' homogeneous experiences may lead to unfamiliarity with the selected writing topics,

limited vocabulary levels, and less interest in English writing subject. Subject areas taught in Korean public education do not entail a variety of ideas taught in other countries. The sample characteristic may limit application of the study result to other L2 writing situations. To generalize or use the research points addressed in the current study, further examinations may be advisable on L2 writers from other countries and with other language backgrounds.

Multidimensionality. The current study explored L2 writers' characteristics such as motivation, knowledge, and strategies and were assessed with diverse measurements. This effort led to incorporation of multiple aspects of L2 writing development and overcame weaknesses found in previous L2 writing studies. Previous studies seldom provided empirical evidence to show dynamics and interconnectivity among different factors of "the who," "the what," and "the where" or "the when," in drawing a holistic developmental picture of L2 writing. For example, researchers investigated limited aspects of L2 writing such as impact of online learning environments on students' affect (Bitchener, Young, & Cameron, 2005), learner centerness (Helms-Park, Radia, & Stapleton, 2007), or students' changes in motivation and participation (Truscott & Hsu, 2008).

Regardless of the incorporation of various student characteristics and measurement at multiple time points, generalization of the study results to the actual field should be carefully made. The current study still addressed only a few of the learner characteristics based on limited time points and a few environmental conditions. The limitations can raise other relevant questions. What would differ when students were taught or tested in a more advanced state-of-art educational conditions in comparison to a

traditional educational environment? What differences might emerge in outcomes relevant to L2 writing if Korean college students were involved in English writing outside of the school context or if the writing tasks were more directly related to their everyday lives? These extensive questions were not answered in the current study and seem worthy of investigation in the future.

Developmental perspective. The research design based on a three-time-cohort may also contribute to data distortion. As the current study indicated, including multiple waves of data, even more than occurred in the present study, are desirable to more accurately depict learning. To capture more accurate and fuller changes in students' development, the data should be collected at more time points, six or more times, and during a longer period, ideally spanning entire years of L2 writing study. For example, it has been suggested that investigation at multiple time points are preferable to provide reliable results in developmental studies because individual growths of language acquisition especially for novice learners are usually non-linear (Hyttbekicher, Haight, Brylk, Seltze, & Lyons, 1991). To capture quadratic or logarithmic regressions, it seems necessary to maximize the number of measurement on multiple occasions for longer terms. However, given the limitation of administrative conditions, the current study only measured and interviewed the participants at the beginning, middle, and end of a single semester. Other pertinent events in between the data collection times and prior to or after the study period could not be captured. Researchers who can overcome limited administrative conditions, and conduct more frequent data collection should be better able to identify other pertinent events in between the data collection times that may have been missed in the current investigation.

Incorporation of the more fine-grained time scaling in a long-term trajectory would more clearly show how the MDL functions in Korean L2 college students' writing development. The framework, which serves as the basis for the present study, depicts in what degree and in what manner the students' academic knowledge, motivation, and strategies would develop throughout the acclimation, competence, and proficiency stages. According to the MDL, students' knowledge, individual interest, and deep-level strategy use increase, whereas situational interest and surface-level strategies decrease as they become a competent learner or writer. Due to administrative restriction, I could collect data only for students at an acclimation level, making the description of their L2 writing development in a fuller and longer developmental context unavailable in this study. However, I expect their motivational encouragement, prior knowledge establishment, variant strategy uses, and performance enhancement toward the end of their L2 writing development would change as projected in the MDL.

According to the current study, Korean college students' L2 writing developed and relevant learner characteristics changed even over the short period of time (i.e., one semester). The consideration of the writer's changing characteristics would be an essential addition to the L2 writing literature. However, this study result does not explain students at other developmental stages. Most of the participants in the current study were first-year Korean college students who had no or few L2 English writing lessons before. Certainly, the novice writers occupying a majority of the current sample will further develop and are expected to show different cognitive and motivational characteristics from those who would have been at different stages such as initial- or mid-competence in their L2 writing. There remains questions of how L2 writers would change along a long-

term developmental trajectory and how a writer's motivation, beliefs, and strategies would be intertwined with L2 writing performance. These research points may be related to a bigger picture of what good ESL writing should be, and how writers develop in the disciplined learning process. Korean students' average English proficiency level has gradually been increasing over the last years, and more Korean L2 writers reach a higher competence level beyond an acclimation stage (Sung & Song, 2009). The bigger picture drawn on L2 writing development would be informative for understanding characteristics of the more developed Korean L2 learners.

In sum, investigations of student knowledge, motivation, strategy, and performance may provide classroom teachers with more information on the characteristics of L2 students that contribute to find critical factors in facilitating L2 writing. Specifically, instructors who teach Korean L2 writing students and Korean L2 student recruiters in the U.S. may be aided by these study results by identifying Korean college students' difficulties in L2 writing prior to be exposed to U.S. education. Periodical research design implemented in the current study may also offer better understandings of how Korean L2 college students' writing develop over time and which learning dimensions should receive special considerations at which times during the semester.

APPENDICES

Appendix A: Demographic Information

Pilot Study

Directions: Please fill in the appropriate response.

Gender: Male Female Birth Year: _____

Country of Origin: _____ (e.g., Korea)

First Language: _____ (e.g., Korean)

1. How long have you been taking writing classes in your first language?

_____ Years _____ Months

2. How long have you been taking English writing classes?

_____ Years _____ Months in your home country (e.g., Korea)

_____ Years _____ Months in U.S. or other country

Proposed Study

Directions: Please fill in the appropriate response.

Gender: Male Female Birth Year: _____

Country of Origin: _____ (e.g., Korea)

First Language: _____ (e.g., Korean)

1. How long have you been taking general language classes, in your first language?

_____ Years _____ Months

2. How long have you been taking general English language classes?

_____ Years _____ Months in your home country (e.g., Korea)

_____ Years _____ Months in U.S. or other country

Appendix B: Performance Measure

Pilot Study

Direction: Please write about the following topic.

Topic 1-a. Some high schools require all students to wear school uniforms. Other high schools permit students to decide what to wear to school. Discuss the *benefits* of wearing school uniforms. Use specific reasons and examples to support your answer.

Topic 1-b. Some high schools require all students to wear school uniforms. Other high schools permit students to wear whatever they want to school. Discuss the *disadvantages* of wearing school uniforms. Use specific reasons and examples to support your argument against a school uniform policy.

Topic 2-a. Some people prefer to live in places that have the same weather all year round. Others like to live in areas where the weather changes several times a year. Discuss the *benefits* of living in places with consistent weather all year round. Use specific reasons and examples to support your answer.

Topic 2-b. Some people prefer to live in places that have the same weather or climate all year round. Others like to live in areas where the weather changes several times a year. Discuss the *disadvantages* of living in places with the same weather all year round. Use specific reasons and examples to support your answer.

Proposed Study

Direction: Please write about the following topic.

Topic 1. Describe the *benefits* and the *disadvantages* of wearing school uniforms. Use specific reasons and examples to support your answer.

Topic 2. Describe the *benefits* and the *disadvantages* of living in places with consistent weather all year round. Use specific reasons and examples to support your answer.

Topic 3. Describe the *benefits* and the *disadvantages* of borrowing money from a friend. Use specific reasons and examples to support your answer.

Appendix C: TOEFL® Independent Writing Rubrics

Score	Task Description
5	<p>An essay at this level largely accomplishes all of the following:</p> <ul style="list-style-type: none"> effectively addresses the topic and task is well organized and well developed, using clearly appropriate explanations, exemplifications, and/or details. Display unity, progression, and coherence Display consistent facility in the use of language, demonstrating syntactic variety, appropriate word choice, and idiomaticity, though it may have minor lexical or grammatical errors
4	<p>An essay at this level largely accomplishes all of the following:</p> <ul style="list-style-type: none"> addresses the topic and task well, though some points may not be fully elaborated is generally well organized and well developed, using appropriate and sufficient explanations, exemplifications, and/or details displays unity, progression, and coherence, though it may contain occasional redundancy, digression, or unclear connections display facility in the use of language, demonstrating syntactic variety and range of vocabulary, though it will probably have occasional noticeable minor errors in structure, word form, or use of idiomatic language that do not interfere with meaning
3	<p>An essay at this level is marked by one or more of the following:</p> <ul style="list-style-type: none"> addresses the topic and task using somewhat developed explanation, exemplifications, and/or details. displays unity, progression, and coherence, though connection of ideas may be occasionally obscured. may demonstrate inconsistent facility in sentence formation and word choice that may result in lack of clarity and occasionally obscure meaning may display accurate but limited range of syntactic structures and vocabulary
2	<p>An essay at this level may reveal one or more of the following weaknesses:</p> <ul style="list-style-type: none"> limited development in response to the topic and task inadequate organization or connection of ideas inappropriate or insufficient exemplifications, explanations, or details to support or illustrate generalizations in response to the task a noticeably inappropriate choice of words or word forms an accumulation of errors in sentence structure and/or usage
1	<p>An essay at this level is seriously flawed by one or more of the following weaknesses:</p> <ul style="list-style-type: none"> serious disorganization or underdevelopment little or no detail, or irrelevant specifics, or questionable responsiveness to the task serious and frequent errors in sentence structure or usage
0	<p>An essay in this level merely copies words from the topic, rejects the topic, or is otherwise not connected to the topic, is written in a foreign language, consists of keystroke characters, or is blank.</p>

Appendix D: Language Knowledge Measure**Pilot Study**

PART I DIRECTIONS: For each of the following items, *circle* the letter of the *grammatically correct* word or phrase that most appropriately completes each sentence.

1. Industrial diamonds _____hard materials.
 - (a) are used to be cutting
 - (b) are used to cut
 - (c) used to be cut
 - (d) are used to cutting

2. _____, manufacturers usually use additives to improve quality and ease of serving.
 - (a) When make ice cream
 - (b) When making ice cream
 - (c) When making of ice cream
 - (d) When they making ice cream

3. Jerome Kern’s most famous work is “Showboat,” _____most enduring musical comedies.
 - (a) one of the
 - (b) the
 - (c) it is one of the
 - (d) the best one and

4. The chief objectives of the American Federation of Teachers _____ professionalism in teaching and to secure appropriate wages, better working conditions, and job security for its members.
- (a) to promote
 - (b) are promote
 - (c) are promoting
 - (d) are to promote
5. A bright-red color, a trimming of white fat, and _____ are among the qualities of a good piece of beef.
- (a) a texture smooth, firm
 - (b) a smooth texture firm
 - (c) a smooth, firm texture
 - (d) a texture of smooth and firm
6. _____, also called a carousel, consists of brightly painted horses and other animals mounted on a revolving circular platform.
- (a) A merry-go-round
 - (b) Because a merry-go-round
 - (c) While a merry-go-round
 - (d) On a merry-go-round

7. Life expectancy has improved steadily over the years, _____ deaths during childhood.
- (a) due to large a decline in
 - (b) largely a decline in due to
 - (c) largely in due to a decline
 - (d) largely due to a decline in
8. In April of 1925, Scottish engineer John Logie Baird gave _____ of a television technology that used mechanical devices in the camera and receiver.
- (a) the public first demonstration
 - (b) the first public demonstration
 - (c) the public demonstration first
 - (d) the public first demonstration

PART II DIRECTIONS: In each of the following items, one of the underlined segments is incorrect. In each sentence, *circle* the letter for the underlined sentence segment (word or phrase) that is *grammatically incorrect*.

1. Although (a) good health depends on (b) a number of factors, in general there is a close correlation between the wealth of a country (c) as well as the health status of (d) its people.
2. A hurricane is a (a) large, spinning wind system that (b) is developed over warm (c) seas (d) near the equator.
3. A telescope improves our view of (a) the skies, partly by forming a large image that (b) magnifies the detail in objects, but even more importantly by (c) gather (d) more light than the human eye is able to.
4. The drama, "A Raisin in the Sun," provides (a) a study of the (b) search for identity by African American men and women, both within the family (c) or within a (d) racially prejudiced American Society.
5. The influence of jazz (a) on this century's music has been (b) as pervasive that there is (c) little popular music that does not trace (d) its stylistic roots back to this unique American invention.
6. The hormone insulin, which (a) is produced by (b) specialized cells in the pancreas, enables the body (c) using and store glucose (d) quickly.
7. (a) Most weeds are wild plants that (b) invade farms and gardens and (c) competing with the cultivated plants for sunlight, water, and (d) minerals in the soil.

Proposed Study

PART I DIRECTIONS: For each of the following items, *circle* the letter of the *grammatically correct* word or phrase that most appropriately completes each sentence.

1. Many trees _____papers.
 - (a) is used to make
 - (b) are used to make
 - (c) used to be make
 - (d) are used to making

2. Temperature is key, _____.
 - (a) when cooking meat.
 - (b) meat cooking
 - (c) cooking of meat
 - (d) they cook meat.

3. Park Kyung-li's "Toji(Land)" is _____most famous Korean novels.
 - (a) one of the
 - (b) a
 - (c) it is the
 - (d) the best one and

4. This year's business objective is _____ 10 million Euros in European market.
 - (a) to achieve
 - (b) achieve
 - (c) achievement
 - (d) achieved

5. A hot dog is _____ soft, even texture and flavor.
- (a) a moist sausage
 - (b) of a moist sausage
 - (c) a moist sausage of
 - (d) of moist sausage a
6. _____ consists of a rotating circular platform with seats for riders.
- (a) A merry-go-round
 - (b) Because a merry-go-round
 - (c) While a merry-go-round
 - (d) On a merry-go-round
7. Life expectancy has improved steadily over the years, _____ deaths during childhood.
- (a) due to large a decline in
 - (b) largely a decline in due to
 - (c) largely in due to a decline
 - (d) largely due to a decline in
8. In April of 1925, Scottish engineer John Logie Baird gave _____ of a television technology that used mechanical devices in the camera and receiver.
- (a) the public first demonstration
 - (b) the first public demonstration
 - (c) the public demonstration first
 - (d) the public first demonstration

PART II DIRECTIONS: In each of the following items, one of the underlined segments is incorrect. In each sentence, *circle* the letter for the underlined sentence segment (word or phrase) that is *grammatically incorrect*.

1. There is a close correlation between the wealth of a country or the health status of its people.
 (a) (b) (c)
 (d)
2. Maryland students performed slightly better on both the math or critical reading sections of the SAT in 2010.
 (a) (b) (c)
 (d)
3. The caterpillar ate through one green leaf, and after that he felt more good.
 (a) (b) (c) (d)
4. Liu Xiaobo has won the 2010 Nobel Peace Prize in recognition of “their long and non-violent struggle for fundamental human rights in China.”
 (a) (b) (c)
 (d)
5. Good man must die, but death cannot kill their names.
 (a) (b) (c) (d)
6. Birth order may define your role within a family, but as you matures into adulthood, birth order becomes insignificant.
 (a) (b) (c)
 (d)
7. Most weeds are wild plants that invade farms and gardens and competing with the cultivated plants.
 (a) (b) (c)
 (d)

Appendix E: Motivation Measures

ENGLISH WRITING SELF-EFFICACY MEASURE

DIRECTIONS: For each item below, please place a slash mark (/) on the line to indicate how confident you are that you can effectively use each of the following writing skills, where 0%=not at all confident, and 100%= absolutely confident.

<i>Sample Item</i>	
Correctly complete all the items on this scale.	
Not at All	Absolutely
Confident	Confident
0% _____	|_____ 100%

When I write in English...

1. Correctly spell all the words in a one page essay.

Not at All		Absolutely
Confident		Confident
0% _____		100%

2. Correctly punctuate a one page essay.

Not at All		Absolutely
Confident		Confident
0% _____		100%

3. Correctly use all parts of speech in a one page essay.

Not at All		Absolutely
Confident		Confident
0% _____		100%

4. Write simple sentences with correct grammar.

Not at All		Absolutely
Confident		Confident
0% _____		100%

5. Correctly use grammatical elements such as singular and plural forms, verb tenses, prefixes, and suffixes.

Not at All		Absolutely
Confident		Confident
0% _____		100%

6. Write paragraphs with a good topic sentence

Not at All		Absolutely
Confident		Confident

- 0% _____ 100%
7. Structure paragraphs to support the topic sentence.
 Not at All Absolutely
 Confident Confident
 0% _____ 100%
8. End paragraphs with proper concluding sentences.
 Not at All Absolutely
 Confident Confident
 0% _____ 100%
9. Write a well-organized and well-sequenced paper that has a good introduction, body, and conclusion.
 Not at All Absolutely
 Confident Confident
 0% _____ 100%
10. Get ideas across in a clear manner by staying focused on the topic.
 Not at All Absolutely
 Confident Confident
 0% _____ 100%

ENGLISH WRITING INTEREST MEASURE

DIRECTIONS: Please place a slash mark (/) on the scale below to indicate how interested you are in taking this class and improving your English academic writing.

Sample Item	
I am interested in completing this scale.	
Strongly Disagree	Strongly Agree
<hr style="border: 0; border-top: 1px solid black; margin: 0;"/> <div style="display: inline-block; width: 50%; border-left: 1px solid black; height: 15px; margin: 0 auto;"></div>	

1. I am interested in learning more English vocabulary.

Strongly Disagree	Strongly Agree
<hr style="border: 0; border-top: 1px solid black; margin: 0;"/>	
2. I like the way the class instructor teaches English writing.

Strongly Disagree	Strongly Agree
<hr style="border: 0; border-top: 1px solid black; margin: 0;"/>	
3. I am interested in learning more about English grammar.

Strongly Disagree	Strongly Agree
<hr style="border: 0; border-top: 1px solid black; margin: 0;"/>	
4. I am interested in learning more about how to structure English essays.

Strongly Disagree	Strongly Agree
<hr style="border: 0; border-top: 1px solid black; margin: 0;"/>	
5. I enjoy writing about my major in English.

Strongly Disagree	Strongly Agree
<hr style="border: 0; border-top: 1px solid black; margin: 0;"/>	
6. I enjoy communicating with professors and friends about my major through writing in English (e.g. e-mail, text messages, and letters).

Strongly Disagree	Strongly Agree
<hr style="border: 0; border-top: 1px solid black; margin: 0;"/>	

7. I want to know how to write about my major in more professional English.
Strongly Disagree Strongly Agree

8. I am interested in writing about the topic of school uniform policies.
Strongly Disagree Strongly Agree

Appendix F: Strategy Measure

DIRECTIONS: Please place a slash mark (/) on the scale below to indicate how frequently you used each of the following writing strategies *when you were writing your English essay*.

<p>Sample: <i>When I wrote in English...</i> I associated ideas with one another. Not very often Very often</p> <hr style="width: 50%; margin-left: 0;"/>
--

When I wrote in English...

1. I organized my ideas prior to writing.
 Not very often Very often

2. I took time to understand the writing prompt(s).
 Not very often Very often

3. I imagined who would be reading my writing.
 Not very often Very often

4. I went back and evaluated my writing plan after completing the essay.
 Not very often Very often

5. I monitored the organization of my writing.
 Not very often Very often

6. I went back and made sure I included everything I wanted to discuss.
 Not very often Very often

7. I put my own comments on the essay I wrote.
 Not very often Very often

8. I checked my spelling.
Not very often Very often

9. I checked my writing to make sure it was grammatically correct.
Not very often Very often

10. I checked the punctuation.
Not very often Very often

11. I looked back at the ideas in my essay.
Not very often Very often

12. I used memorized grammatical elements such as singular and plural forms, verb tenses, prefixes, suffixes, and prepositions.
Not very often Very often

13. I put newly memorized vocabulary in sentences.
Not very often Very often

14. I used my experiences and knowledge in my writing.
Not very often Very often

15. I consulted outside resources (e.g., Internet or books).
Not very often Very often

16. I translated my thoughts from Korean into English.
Not very often Very often

17. I used different words that had same meaning.
Not very often Very often

18. I tried to express my thoughts in several different ways.
Not very often Very often

Appendix G: Korean L1 Writing Prior Knowledge

L1 WRITING SELF-EFFICACY MEASURE

DIRECTIONS: For each item below, please place a slash mark (/) on the line to indicate how confident you are that you can effectively use each of the following writing skills, where 0%=not at all confident, and 100%= absolutely confident.

<i>Sample Item</i>	
Correctly complete all the items on this scale.	
Not at All	Absolutely
Confident	Confident
0% _____	_____ 100%

When I write in my first language (i.e., Korean)...

- Correctly spell all the words in a one page essay.

Not at All	Absolutely
Confident	Confident
0% _____	_____ 100%
- Correctly punctuate a one page essay.

Not at All	Absolutely
Confident	Confident
0% _____	_____ 100%
- Correctly use all parts of speech in a one page essay.

Not at All	Absolutely
Confident	Confident
0% _____	_____ 100%
- Write simple sentences with correct grammar.

Not at All	Absolutely
Confident	Confident
0% _____	_____ 100%
- Correctly use grammatical elements such as singular and plural forms, verb tenses, prefixes, and suffixes.

Not at All	Absolutely
Confident	Confident
0% _____	_____ 100%
- Write paragraphs with a good topic sentence

Not at All	Absolutely
Confident	Confident

0% _____ 100%

7. Structure paragraphs to support the topic sentence.

Not at All

Absolutely

Confident

Confident

0% _____ 100%

8. End paragraphs with proper concluding sentences.

Not at All

Absolutely

Confident

Confident

0% _____ 100%

9. Write a well-organized and well-sequenced paper that has a good introduction, body, and conclusion.

Not at All

Absolutely

Confident

Confident

0% _____ 100%

10. Get ideas across in a clear manner by staying focused on the topic.

Not at All

Absolutely

Confident

Confident

0% _____ 100%

L1 WRITING KNOWLEDGE MEASURE

DIRECTIONS: When you write a paper in your first language (i.e., Korean), what would you consider to be good writing? Please indicate the criteria you use to determine good writing or a good paper.

Appendix H: Interview Protocol

1. Greet students, thank them for participating.
2. Explain, in general terms, what the purpose of the interview is:
 - 2-1. Participants will be asked to look back at and talk about their writing activities completed during the measurement sessions.
 - 2-2. They will be asked about the degree to which they were interested in and confident in their academic writing in English.
3. Ask if they have any questions. If not, proceed with interview.
4. Interview for strategic processing:
 - 4-1. Explain the strategy recall process and what I mean by strategic processing.

Participants will be asked to look back and talk about their prior writing activities. Looking back on their own writing samples, the participants will recall and report on their writing processes.
 - 4-2. Give an example of the recall process by verbally presenting.

“I first read the writing prompt and then took a minute to think what that means. I reread the prompt. I wrote down key points relevant to the question. I wrote down ‘constructing a shopping center in our town is good because it will contribute to economic growth of the town.’”
 - 4-3. Show them their *first* writing sample.
 - 4-4. Ask them the following questions and audio-record their responses:

“Can you describe the process of how you wrote these essays step by step like the example I provided?”
 - 4-5. Show them their *last* writing sample.

4-6. Ask them the following questions and audio-record their responses:

“Can you describe the process of how you wrote these essays step by step like you did for the first writing sample?”

5. Interview for interest:

5-1. Ask them the following questions and audio-record their responses:

“How interested were you in taking this class?”

“How interested are you in writing in English?”

“How interested were you in the topics used in these writing tasks?”

5-2. For each question, ask students as to why they think they were or were not interested. Audio-record their responses.

6. Interview for self-efficacy:

6-1. Ask them the following questions regarding L2 writing and audio-record their responses: “Are you confident in English writing?”

“How would you rate your English writing level?”

“Do you think that there is specific reasons you felt [confident/ nonconfident] in English writing?”

6-2. Ask them the following questions regarding L1 writing and audio-record their responses:

“Are you confident in Korean writing?”

“How would you rate your Korean writing level?”

“Do you think that there is specific reasons you felt [confident/ nonconfident] in Korean writing?”

7. Thank student

Materials: Digital audio recorder, Researcher protocol, Writing implements for researcher

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