

## Motivational and Strategic Profiles of EFL University Learners as Predictors of L2 Reading Proficiency

Yuah V. Chon(Hanyang University)

**Chon, Yuah V. 2017. "Motivational and Strategic Profiles of EFL University Learners as Predictors of L2 Reading Proficiency." *The Journal of Linguistic Science* 83:373-99.** This study explored the relationship between EFL university learners' reading motivation (RM), reading strategies (RS), and reading ability. Participants consisted of advanced (N=48) and low-intermediate learners (N=70). Questionnaires were utilized to collect information on RM and RS. Reading ability was assessed with a reading comprehension test. Regarding RM, Extrinsic Utility Value of L2 Reading was rated at the highest level. RS indicated that the learners perceived Problem-solving Strategies as being most often employed. Multiple regression conducted with RM, RS, and learner affiliated majors indicated that Reading Efficacy, which learners lacked, was a significant predictor of L2 reading. The results indicated that RM and RS were significant predictors of reading ability, however, with different configurations according to proficiency groups. (Hanyang University)

### Key Words

reading motivation, reading efficacy, reading strategies, reading proficiency

## 1. Introduction

Motivation has been a central issue in learning for second language (L2) contexts (Csizér and Dörnyei 2005; Gardner 1985, 1988; Gardner and MacIntyre 1991). There have also been arguments that motivation must be understood as a domain-specific construct (Wigfield 1997). While motivation may be exhibited with different language skills, L2 reading motivation, a skill-specific type of motivation has not drawn sufficient attention for L2 learning. Grabe (2009) calls for more research specifically on L2 reading motivation (RM) by pointing out the little research that has been conducted in the area. Also, previous research has found that reading motivation is multidimensional (Mori 2002; Watkins and Coffey 2004). However, the field still lacks a theoretical framework for explaining how L2 learners may be motivated to read (cf. Mori 2002) since the relevant work for conceptualizing reading motivation has been conducted mostly for first language (L1) reading (Wigfield and Guthrie 1995, 1997). This is more of a case with the reading motivational profiles of Korean EFL (English as a Foreign Language) university learners, who may exhibit distinct types of RM due to their sociocultural context.

Another contributing factor for L2 reading comprehension is reading strategies (RS) that L2 learners report using in face of problems while reading, which indicate learners' metacognitive awareness (Carrell, Devine, and Eskey 1988; Urquhart and Weir 2014). According to Barnett (1988), RS are the mental operations involved when readers try to decode a text to effectively make sense of what they read. A large amount of research has been conducted on how proficient readers and less proficient learners employ strategies. Nonetheless, research on RS collectively with RM for its contribution to L2 reading comprehension has rarely been considered for L2 reading comprehension. That is, while both RM and RS may be predictors of L2 reading ability, it was within the interest of the present study to seek how the collective contribution of RM and RS may exert different predictive powers for L2 reading comprehension when different L2 learner proficiency groups are examined.

The aims of the present study were to: (a) identify factors that motivate Korean EFL university learners to read in English, (b) examine the L2 learners' strategic

profiles through the strategies they employ while reading, and (c) investigate how RM and RS with relation to the learners' affiliated majors may be the predictors of the learners' L2 reading ability. Throughout the analysis, there was also interest in how the advanced and low-intermediate learners would differ in their motivational and strategic profiles.

## 2. Background

### 2.1 Reading Motivation in Language Learning

Reading motivation has been noted as a significant factor that affects the amount and breadth of students' reading, which as a result, is expected to facilitate the development of reading competence (Wigfield and Guthrie 1997). By using motivational theories as references, Wigfield and Guthrie (1995, 1997) were able to conceptualize reading motivation. Wigfield and Guthrie (1995) classified L1 reading motivation into 11 sub-components: Two aspects were associated with self-efficacy: (1) *reading efficacy* and (2) *reading challenge*. Intrinsic motivation was represented by (3) *reading curiosity*, (4) *reading involvement*, (5) *importance of reading*, and (6) *word avoidance*. Extrinsic motivation was represented by three aspects: (7) *competition in reading*, (8) *recognition for reading*, and (9) *reading for grades*. Social motivation was associated with (10) *social reasons for reading* and (11) *reading compliance*.

According to Wigfield and Guthrie (1995), *reading efficacy* is the belief that one can be successful at reading, and *reading challenge* is associated with the satisfaction of mastering or assimilating complex ideas in text. *Reading curiosity* is the desire to learn about particular topics of interest to the learner, and *reading involvement* is the pleasure of experiencing different kinds of literary or informational texts. Another aspect concerns what learners say they do not like about reading, and this factor is referred to *reading work avoidance*. In comparison, *competition in reading* refers to the desire to outperform others in reading.

In contrast to research conducted for L1 RM, research is scant for L2 RM. Mori

(2002) investigated what comprises foreign language RM with Japanese university learners of English. This study was designed with the EFL context in mind by drawing upon the model proposed by Wigfield and Guthrie (1995, 1997). The results demonstrated that L2 RM is independent of general motivational constructs and that Wigfield and Guthrie's (1995) MRQ, a 11-factor solution for motivation was not adequate for her data and that MRQ should be revised in terms of the research context.

There have been a number of studies conducted in the Korean context. Jung (2009) explored the nature of foreign language RM and the relationship between RM and achievement in English reading with university students. Her analysis indicated self-confident engagement in English to be the significant predictor of reading achievement. Yang (2009) also explored how Korean university students' RM is related to English reading behavior. Correlation analysis conducted between L2 reading behavior (reading amount, time and speed) and motivation factors indicated that intrinsic motivation toward English reading was significantly related to the students' reading amount. Kim (2011) aimed to identify underlying factors that motivate language learners to read in a foreign language context with 259 Korean EFL college students. With a four-factor solution for L2 RM (i.e., learning goal-oriented motivation, intrinsic motivation, avoidance of reading, and utility value of L2 reading), she found learning goal-oriented motivation and utility value of L2 reading to be the two primary indicators for the participants' desire to read in English. To investigate changes in the first year students' English RM and RS at the beginning and end of the semester, Nam (2014) conducted a questionnaire study with university freshmen taking an English class. For RM, there were nine significant differences in English RM items, in which reading efficacy had a significant difference.

## 2.2 Strategies and Metacognition in Second Language Reading

There has been a noticeable amount of research on the relationship between strategic reading and successful or unsuccessful second language readers (Block 1986; Devine

1984; Fatham Knight Padron, and Waxman 1985; Mokhtari and Reichard 2002; Sarig 1987; Sheorey and Mokhtari 2001). Nonetheless, it is still not clear whether strategy use is a reflection of good reading, the cause of good reading, or both (Hudson 2007). In an early second language reading study, Hosenfeld (1977) employed think-aloud protocols to identify the relationships between different RS and unsuccessful and successful second language reading. She found her successful readers a) keeping the meaning of the passage in mind during reading, b) reading in broad phrases, c) skipping words viewed as unimportant to total understanding, and d) having a positive self-concept as a reader. Knight et al. (1985) looked at whether there were differences in either the type or frequency of strategies reported by English -Spanish bilingual and English monolingual students. When the students were asked to read a passage matched to their reading ability level, the use of three strategies, that is, concentrating, noting details, and self-generation of question were reported significantly more often by monolinguals than bilingual students. Sheorey and Mokhtari's (2001) study indicated that both high-ability native speakers of English and ESL (English as a Second Language) students showed higher reported usage of cognitive and metacognitive strategies than did the lower-ability readers of each group.

Researchers have classified reading strategies differently and have developed instruments to examine reading strategies. Mokhtari and Reichard (2002) developed a taxonomy in order to measure native English speaking learners' awareness and perceived use of RS while reading academic or school-related materials: Metacognitive Awareness of Reading Strategies Inventory (MARSİ). However, Mokhtari and Sheorey (2002) claimed that the existing instruments did not take into account some of strategies that are unique to students who are literate in more than one language, and developed The Survey of Reading Strategies (SORS) based on MARSİ. The SORS aims to measure the type and frequency of reading strategies that adolescent and adult ESL students use while reading academic materials in English.

The SORS measures three broad dimensions of reading strategies: namely global reading strategies, problem solving strategies, and support strategies. *Global Reading Strategies* are those international, carefully planned techniques by which learners monitor

or manage their reading (e.g., having a purpose in mind, previewing the text as to its length and organization, or using typographical aids and tables and figures). *Problem Solving Strategies* are actions and procedures that readers use while working directly with the text. These are localized, and focused techniques used when problems develop in understanding textual information, (e.g., adjusting one's speed of reading when the material becomes different or easy, guessing the meaning of unknown words, and reading the text to improve comprehension). *Support Strategies* are basic support mechanisms intended to aid the reader in comprehending the text (e.g., using a dictionary, taking notes, underlining, or highlighting textual information). In this study, Mokhtari and Sheorey's Survey of Reading Strategies was employed.

The studies, with having used different classifications of RS and conceptualizations of them, does not indicate a clear explanation as to whether the differences in strategy used are the result of language proficiency, lack of training in the particular strategies, or motivational factors. Also, it is not clear as to how RS and RM, hypothesized as being both important for improving reading comprehension ability, will transpire for explaining the motivational and strategic profiles of EFL university learners. In addition, a local interest for the researcher was to seek how the learners from different majors would score for reading comprehension in order to be able to ascertain how learners may need different types and levels of attention. With having recognized the research gap in the area, the present study was guided by the following research questions:

- 1) What types of L2 reading motivation (RM) are dominantly favored by the learners? If any, how do differences transpire for the Skilled and Less Skilled Learners?
- 2) What are the reading strategies (RS) that learners report using for reading L2 academic texts? If any, how do differences transpire for the Skilled and Less Skilled Learners?
- 3) While considering student affiliated majors, which subscales respectively for RM and RS are significant predictors of L2 reading ability? If applicable, how do the predictors transpire for the Skilled and Less Skilled Learners?

### 3. Method

#### 3.1 Participants

The participants were 118 freshman university learners from the departments of Buddhist Culture (N=10, 8.5%), Art and Humanities (N=14, 11.9%), Natural Sciences (N=35, 29.7%), Social Sciences (N=9, 7.6%), Business (N=28, 23.7%), Education (N=14, 11.9%), and Elective Majors (N=8, 6.8%). At the time of the study, the participants were enrolled in *Freshman English I*, an obligatory course. For the present study, intact classes from Groups A (N=48) and C (N=70) were recruited, who had previously been grouped by the university's placement exams. Group A learners were the most advanced of the cohort (TOEIC Mean=506) while those in Group C were at low-intermediate levels whose score would range from 300-400. The students in Group A were encouraged to improve their reading skills in order to ultimately to take Test Of English for International Communication (TOEIC). As such, materials were utilized in accordance with improving the learners' TOEIC scores. In comparison, learners in Group C were encouraged to practice general reading with a focus on increasing their knowledge of English vocabulary and grammar to ultimately understand the gist of reading passages. The course book was organized so as to offer readings in a number of topics that would be interesting to young adult learners. TOEIC mean scores could not be obtained for Group C learners since their levels were considered too low for them to take the test, and thus was not required for the group.

Comparison of the learners' previous achievement records via the Korean College Scholastic Ability Test (CSAT), a four-skill high-stakes standardized exam, indicated that there was a significant difference between the groups ( $t = -5.785$ ;  $p < .001$ ) in their stanine levels (Group A:  $M = 3.40$ ,  $SD = 1.35$ , Group C:  $M = 4.73$ ,  $SD = 1.14$ ). While stanine levels can range from 1 to 9, higher stanine levels indicate declining proficiency levels. It was found that there was a significant proficiency difference between the two groups. As such, it was found valid to label Group A as

the 'skilled learners' and Group C as 'less skilled learners' of English. Hereafter, the groups will be referred to as Group A and Group C.

## 3.2 Instrument

### 3.2.1 Reading motivation questionnaire

Reading Motivation Questionnaire (RMQ) for the study was developed by referencing Mori's (2002) Nine Hypothesized Reading Motivational Components (30 items), which was an adaptation for target Japanese university learners of English based on Wigfield and Guthrie's (1997) Motivation for Reading Questionnaire (MRQ). Mori's (2002) study validated MRQ with Japanese university learners based on Wigfield and Guthrie's theoretical aspects of reading motivation. The adopted questionnaire which was administered on the university learners consisted of nine subscales, that is, Reading Efficacy, Reading Challenge, Reading Curiosity, Reading Involvement, Importance of Reading in English, Reading for Grades, Reading Compliance, and Reading Avoidance. The questionnaire consisted of 30 items to be marked on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire items were translated to be administered in the learners' L1. The items were then back translated for content validity. In the end, the internal reliability of the scale with Cronbach's alpha was .928.

### 3.2.2 Survey of reading strategies

The Survey of Reading Strategies (SORS), developed by Mokhtari and Sheorey (2002), was adopted as the instrument to collect information on L2 university learners' use of RS employed for reading academic materials. Mokhtari and Sheorey were inspired by the development of Mokhtari and Reichard's (2002) Metacognitive Awareness of Reading Strategies Inventory (MARS), however, which was a questionnaire for measuring reading metacognitive awareness of native speakers. While being the

first of the kind to develop a metacognitive awareness reading strategy questionnaire, SORS is intended to measure adolescent and adult ESL students' metacognitive awareness and perceived use of strategies while reading academic materials, such as textbooks.

The SORS questionnaire consisted of 30 items to be marked on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The SORS measures three broad categories of RS: Global Strategies (13 items), Supplementary Strategies (8 items), and Problem-solving Strategies (9 items). The final questionnaire was prepared for the learners in their L1. The internal reliability of the scale with Cronbach's alpha was .915.

### 3.2.3 Background questionnaire

With RMQ and SORS, learners were also asked in the questionnaire on their background, such as their gender, age, and affiliated majors. In the questionnaire, the learners were also asked to report on their previous achievement scores, that is, their stanine levels on the previous Korean CSAT, the four-skill standardized test, as a measure of their general English proficiency.

### 3.2.4 Reading proficiency test

Both as a measure of the learners' L2 reading proficiency and final achievement for *Freshman English 1*, learners in Group A and C were respectively tested on their reading performance towards the end of the semester, however, with different instruments due to their different learning objectives and L2 proficiency. Group A (i.e., skilled learners) was tested on a mock TOEIC (Total = 990 points), such that the test consisted of listening comprehension (495 points) and reading comprehension (495 points). With interest in L2 reading, only the reading comprehension test score was used for later statistical analysis. For Group C (i.e., less skill learners), an internal reading test developed by five faculty members in the university's English teaching program was administered. Alike the test used for Group A, the test consisted

of multiple-choice questions for testing grammar, identifying linguistic errors, and reading of short passages for comprehension (Total = 40 points; No. of Items = 40). Overall, both tests assessed the L2 learners' reading comprehension.

### 3.3 Procedure

At the end of the semester, the learners were asked to respond to the questionnaires to report on their background, RMQ and SORS while reflecting on their reading experience during the course. For RMQ, the learners were asked to think about their reasons for L2 reading. For SORS, learners were asked to report on the L2 RS that they were aware of employing during their process of reading academic texts. The learners were provided with 30 minutes to complete the questionnaires, which was considered sufficient for the learners to provide responses.

### 3.4 Data Analysis

The questionnaires were analyzed with SPSS 21.0. To research RM and RS of L2 university EFL learners (i.e., Research questions 1 and 2), descriptive statistics (frequencies, means, and standard deviations) were computed for the participants' responses to the items in the MRQ, SORS, and background questionnaire. Negatively stated statements were reverse coded for valid analysis. For MRQ, an exploratory factor analysis was conducted to identify the factors of RM since previous Mori's (2002) subscales of RM were not applicable in identical ways to the Korean L2 university learners. The extracted factors with their mean values of the subscales (reported later in 'Results') were used throughout the rest of the analyses.

Unlike the analysis for RM, factor analysis was not conducted for RS since use of the original items adopted from Mokhtari and Sheorey's (2002) taxonomy of RS produced high reliability (internal consistency). In fact, factor analysis on RS items produced lower reliability between items in comparison to when it was not conducted. The mean values produced from SORS was calculated for their classification of

strategies (i.e., Global Strategies, Supplementary Strategies, Problem-solving Strategies). Cronbach alphas were calculated to estimate the reliability of the questionnaires in measuring the subscales. Unlike RM, factor analysis was not conducted for RS since each of the strategies indicated high reliability (See later 'Results').

For any possible differences that may transpire between Groups A and C respectively for RM and RS, independent-samples *t* tests were conducted. In the final analysis, to examine whether student affiliated majors, RM and RS may have an influence on L2 reading proficiency, linear multiple regression was conducted. The student major variables, being nominal scales, needed to be dummy coded before analysis. In the regression analysis, it was logical to use Natural Science majors as the reference group for comparison between other majors since it was the largest category with the most number of learners (Field 2009).

## 4. Results

### 4.1 L2 Reading Motivation

This section examines RQ1. What types of L2 RM are dominantly favored by the learners? To investigate RM, there was need to first identify the factors of RM. In order to determine the underlying constructs of RM in English, principal axis factoring analysis with an oblique rotation (Promax) was conducted. The number of factors to be extracted was based on the following criteria: eigenvalues of 1.0 or greater, the scree test, and the interpretability of the resulting solutions (Preacher and MacCallum 2003). Three items (6, 15, 23) were excluded from the analysis due to low communalities which left 27 items with a six-factor solution. This accounted for 57.99% of the total variance in RM. The results of the six-factor solution including means and standard deviations for each item are summarized in <Table 1>.

The naming of the factors was based on those identified by Mori (2002), but a different configuration of items emerged for the Korean university L2 learners. Factor

1, six items, indicated that the statements were concerned with how the learners' evaluated themselves in relation to their L2 reading performance. As such, this factor was labeled *Reading Efficacy*. Factor 2 was labeled *Extrinsic Utility Value of L2 Reading*. The six associated items were concerned with achieving practical educational goals, such as by utilizing English as a medium to broaden their views and knowledge of the world and be regarded as a more respected person. Factor 3 was associated with learners' voluntary interest in L2 reading, such as by reading various genres, which will be more challenging but stimulating to the learners. As such, the seven items that loaded on this factor was labeled *Reading Involvement*, which, according to Mori (2002), refer to the enjoyment involved with reading different kinds of texts. Factor 4 was characterized by two complementary concepts of motivation: *Intrinsic Value and Importance of L2 Reading*. Learners showed that they aspired to read stories (e.g., novels) in L2, which would provide a satisfying experience for the learners. Concurrently, the learners seemed to be identifying with the importance that English had for their future in contexts beyond the classroom. Factor 5 consisted of two items which were uniformly related to showing interest for learning more about the English-speaking cultures by reading materials via public media (e.g., newspapers, magazines). The factor was labeled *Reading Curiosity*. Two items that loaded on Factor 6 were consistently associated with learners' academic purposes for taking the reading course, that is, to obtain grades in a compulsory course. This factor was identified as *Reading for Grades*, which is associated mainly with the teacher's evaluation of learners' reading performance (Mori, 2002). Based on the results of the factor analysis, each factor of RM were computed for mean and standard deviations. Internal consistency reliability coefficients (as determined by Cronbach's) for the six factors, as shown in <Table 2>, represented high internal consistency with values greater than .70.

When examined, the mean scores for four of the six RM factors were above the median of 3.0. The results indicated that the Korean university L2 learners characterized themselves as being generally motivated. Further analysis with repeated measures ANOVA indicated that the six factors were statistically different from one another,  $F_{(3,975,465.076)} = 58.867$ ,  $p < .001$ . However, pairwise comparisons indicated that

the mean difference between Factors 4 and 5 was not different ( $p = .505$ ), suggesting that learners do not perceive 'Intrinsic Value and Importance of L2 Reading' and 'Reading Curiosity' at different levels.

<Table 1> Six-Factor Solution for Reading Motivation in L2

		Loading	M	SD
<i>Factor 1 Reading Efficacy</i>				
8	Long and difficult English passages put me off.	.870	2.75	1.039
11	I am good at reading in English.	.725	2.69	.854
13	I liked reading classes at junior and senior high schools.	.467	2.72	1.003
17	English reading is my weak subject.	.794	2.92	1.018
21	My grades for English reading classes at junior and senior high schools were not very good.	.754	3.08	1.001
30	It is a pain to read in English.	.406	3.58	1.008
<i>Factor 2 Extrinsic Utility Value of L2 Reading</i>				
18	Learning to read in English is important because it will be conducive to my general education.	.449	3.51	.748
19	By learning to read in English, I hope to learn about various opinions in the world.	.429	3.52	.894
24	Learning to read in English is important because it will broaden my view.	.807	3.71	.717
25	By learning to read in English, I hope to search information on the Internet.	.618	3.65	.789
26	Reading in English is important because it will make me a more knowledgeable person.	.735	3.69	.745
27	It is a waste of time to learn to read in English.	.564	4.07	.688
<i>Factor 3 Reading Involvement</i>				
10	I would like to get a job that uses what I studied in English reading class.	.460	2.75	1.006
12	I like reading English novels.	.510	2.45	.966

16	I like reading English newspapers and/or magazines.	.592	2.65	.946
20	I think learning to speak and/or listening is more important than learning to read in English.	.869	2.47	.781
22	I enjoy the challenge of difficult English passages.	.588	2.47	.931
28	I would not voluntarily read in English unless it is required as homework or assignment.	.481	3.05	.950
29	I tend to get deeply engaged when I read in English.	.412	3.00	.887

Factor 4 *Intrinsic Value and Importance of L2 Reading*

1	By learning to read in English, I hope I will be able to read English novels.	.748	3.60	.898
2	I get immersed in interesting stories even if they are written in English.	.608	3.30	1.007
3	Learning to read in English is important in that we need to cope with internationalization.	.624	3.92	.823
4	I am learning to read in English because I might study abroad in the future.	.457	3.42	1.049

Factor 5 *Reading Curiosity*

5	By being able to read in English, I hope to understand more deeply about lifestyles and cultures of English speaking countries (such as America and England).	.760	3.52	.976
14	By learning to read in English, I hope to be able to read English newspapers and/or magazines.	.642	3.51	.976

Factor 6 *Reading for Grades*

7	I am learning to read in English merely because I would like to get good grades.	.486	3.29	.925
9	I am taking a reading class merely because it is a required subject.	.804	3.32	.942

---

&lt;Table 2&gt; Reliabilities and Descriptive Summary for L2 Reading Motivation

		No. of Items	Alpha	M	SD
1	Reading Efficacy (4)	6	.853	2.95	0.75
2	Extrinsic Utility Value of L2 Reading (1)	6	.872	3.69	0.60
3	Reading Involvement (5)	7	.821	2.69	0.64
4	Intrinsic Value and Importance of L2 Reading (2)	4	.797	3.56	0.75
5	Reading Curiosity (2)	2	.758	3.51	0.88
6	Reading for Grades (3)	2	.684	3.31	0.81

Note: ( ) indicate rank of RM preference

The results further indicated that the learners' reading motivational profiles could be characterized by the highest mean score on 'Extrinsic Utility Value of L2 Reading', which was also significantly different from the other four factors ( $p < .001$ ). Extrinsic Utility Value of L2 Reading is closely linked to the concepts of instrumental motivation (Gardner 1985, 1988) and extrinsic motivation (Deci and Ryan 1985, 1995). This indicates that to the university learners, it was not for pleasure, enjoyment or personal well-being, but rather for instrumental purposes that they wanted to read L2. For instance, the learners felt that English reading was going to help them broaden their views in making them more knowledgeable, and thus a worthy task to be involved in. The items that loaded on 'Extrinsic Utility Value of L2 Reading' indicated that the university learners' purpose of L2 reading in the course, *Freshman English 1*, was closely related to utilitarian and immediate purposes, such as to obtain higher grades and expand career opportunities. This connects to how the learners were found to endorse 'Reading for Grades' ( $M = 3.31$ ).

A notable feature of the learners' motivational profile was that 'Intrinsic Value and Importance of L2 Reading' ( $M = 3.56$ , rank 2) was endorsed highly by the learners. Nonetheless, the mean values of 'Reading Efficacy' and 'Reading Involvement' that were lagging behind the other four types of RM factors indicated that the learners were lacking confidence in L2 reading and not genuinely interested in reading various

genres (e.g., novel), that for the L2 learners may be felt demanding and perhaps not as personally meaningful.

To examine if RM may be endorsed differently between the skilled and less skilled learners, the mean values for the factors were calculated with independent- samples t tests, as seen in <Table 3>.

<Table 3> Descriptive Statistics and Group Differences of L2 Reading Motivation

	Group A: N = 48 Group C: N = 70	Mean	SD	t	df	Sig.
Reading Efficacy	A	3.21	0.78	3.200	116	.002**
	C	2.78	0.68			
Extrinsic Utility Value	A	3.85	0.48	2.625	114.98	.010*
	C	3.58	0.65			
Reading Involvement	A	2.87	0.68	2.526	116	.013*
	C	2.57	0.59			
Intrinsic Value and Importance of Reading	A	3.74	0.64	2.297	116	.023*
	C	3.43	0.79			
Reading Curiosity	A	3.70	0.78	1.924	116	.057
	C	3.39	0.92			
Reading for Grades	A	3.44	0.88	1.471	116	.144
	C	3.21	0.76			

The skilled learners exhibited higher levels of RM on most of the factors ('Reading Efficacy', 'Extrinsic Utility Value', 'Reading Involvement', 'Intrinsic Value and Importance of Reading'). The four types of RM seemed to be discriminating the skilled vs. less skilled learners where heightened RM was associated more with the skilled learners. However, this was not the case in 'reading for grades' and 'reading curiosity.' It seems that reading for grades was a common goal for the learners regardless of proficiency. Although non-significant, the borderline significance level of 'reading curiosity' ( $p = .057$ ) may indicate, with a larger population of learners, that this may be a profile of the skilled learners. We leave this for future studies.

## 4.2 L2 Reading Strategies

The means and SD of SORS are presented in <Table 4>, with the internal consistency reliability coefficients for its three strategies. The mean scores for all three RS were above the median score of 3.0, indicating that the university L2 learners perceived themselves overall as being frequent strategy users for the purpose of comprehending academic texts. Problem-solving Strategies (PROB) were perceived as most frequently used, followed by the use of Global Strategies (GLOB) and Supplementary Strategies (SUP). Further analysis with repeated measures ANOVA indicated that the mean values of the three RS were statistically different from one another,  $F_{(1,905,222.935)} = 83.482$ ,  $p < .001$ . The results indicated that the learners were most likely to employ PROB most often due to needing to solve reading problems, such as by employing “When text becomes difficult, I re-read to increase my understanding” ( $M = 3.91$ ,  $SD = .751$ ).

Further analysis with independent-samples  $t$  tests respectively on GLOB, SUP, PROB indicated that there were significant differences between groups for GLOB and SUP, but not for PROB, as indicated in <Table 5>. This indicated that PROB were strategies that learners would need regardless of proficiency level. This is likely knowing that L2 learners are likely experience linguistic gap problems, such as for vocabulary, or in trying to understand the connection between ideas and propositions.

<Table 4> Reliabilities and Descriptive Summary for L2 Reading Strategies

	No. of Items	Alpha	M	SD
Global Strategies (GLOB)	13	0.829	3.40	0.48
Supplementary Strategies (SUP)	9	0.718	3.29	0.51
Problem-solving Strategies (PROB)	8	0.789	3.67	0.50

&lt;Table 5&gt; Descriptive Statistics and Group Differences of L2 Reading Strategies

Group A: N = 48 Group C: N = 70		N	Mean	SD	t	df	Sig.																				
GLOB	A	48	3.50	0.48	2.043	116	.043*																				
	C	70	3.32	0.47				SUP	A	48	3.41	0.44	2.034	116	.044*	C	70	3.21	0.55	PROB	A	48	3.76	0.46	1.648	116	.102
SUP	A	48	3.41	0.44	2.034	116	.044*																				
	C	70	3.21	0.55				PROB	A	48	3.76	0.46	1.648	116	.102	C	70	3.61	0.51								
PROB	A	48	3.76	0.46	1.648	116	.102																				
	C	70	3.61	0.51																							

Further independent-samples *t* tests on the individual strategies were conducted for finer analysis with Bonferroni correction, that is, with alpha levels set at .004 (.05/13) for GLOB and .006 (.05/9) for SUP. With GLOB, the skilled learners ( $M = 3.23$ ,  $SD = .831$ ) were found to report more frequently on employing “I critically analyze and evaluate the information presented in the text” in comparison to the less skilled learners ( $M = 2.49$ ,  $SD = .830$ ) ( $p < .004$ ). This indicates that the skilled learners were trying to be more careful in understanding what they read to either confirm or reject a preliminary understanding of the text.

Regarding SUP, there were significant differences in the way the skilled learners reported on using more strategies than the less skilled learners on two strategies: “I underline or circle information in the text to help me remember it” and “I go back and forth in the text to find relationships among ideas in it” ( $p < .006$ ). The significant differences found for the strategies indicated that it was consistently the higher proficiency learners that chose to use more of them to tackle the online reading problems. The skilled learners, by highlighting important information or re-reading the text, seemed to have tried to obtain a more accurate understanding of the target text they were reading.

### 4.3 L2 Learners' Majors, Reading Motivation, and Reading Strategies as Predictors of Reading Ability

To examine the collective contribution of RM and RS to L2 reading ability, a linear multiple regression was conducted. To obtain a view on how learners from different majors could be profiled in relation to RM and RS, the learners' affiliated majors were also included in the analysis. Since the learners were from the cohort of two different proficiency groups, Groups A and C were separately submitted for analysis, as seen in <Table 6>. A significant regression equation was found for both Group A ( $F_{(15,32)} = 2.589, p < .05, R^2 = .548$ ) and Group C ( $F_{(15,54)} = 2.660, p < .01, R^2 = .425$ ). Each of the models respectively indicated that RM, RS, and affiliated majors can approximately account for 55% (i.e., Group A) and 42% (i.e., Group C) of the variance in L2 reading ability.

For Group A (i.e., skilled learners),  $\beta$  and  $t$  values indicated that learners from 'Buddhist Culture' were falling behind those from 'Natural Science' ( $p < .05$ ), and this was by 134 points (27.07%) (Total: 495 points) according to unstandardized coefficient B. (See <Table 7> for means and SD of reading ability according to different majors). As for RS, those who had employed SUP (e.g., using a dictionary, taking notes, underlining or highlighting textual information) were more successful on their reading test at a significant level ( $p < .05$ ), and this was by 86.26 points (17.43%) for each level of SUP employed on the 5-point Likert scale.

For RM, it was the learners who exhibited stronger 'reading efficacy' that were likely to demonstrate improved L2 reading ability ( $p < .01$ ); the learners were found to improve 84.00 points (16.97%) on the reading test with one increased level of 'reading efficacy.'

For Group C (i.e., less skilled learners), the 'Education' majors were found to lag behind ( $p < .05$ ) by 5.125 points (12.81%) (Total: 40 points) in comparison to the 'Natural Science' majors. The use of PROB (e.g., adjusting one's speed of reading when the material becomes difficult or easy, guessing the meaning of unknown words, and rereading the text to improve comprehension) was also found to bring improved L2 reading performance ( $p < .05$ ) by 6.472 points (16.18%) when a level increased

on the 5-point Likert scale. Similarly to the skilled learners, the less skilled learners' endorsement of 'reading efficacy' resulted in a rise of 3.377 points (8.44%) on their reading test ( $p < .001$ ).

<Table 6> Multiple Regression with Predictors of L2 Reading Ability

	<u>Skilled Learners</u>			<u>Less Skilled Learners</u>		
	B	Beta	t	B	Beta	t
(Constant)	-28.65		-0.23	1.49		0.25
<u>Major</u>						
Natural Science vs. Buddhist Culture	-134.34	-0.36	<b>-2.52*</b>	-2.33	-0.11	-0.93
Natural Science vs. Humanities	-4.96	-0.02	-0.11	-2.02	-0.11	-0.89
Natural Science vs. Social Science	-44.14	-0.15	-0.96	-0.55	-0.02	-0.18
Natural Science vs. Management	-10.10	-0.05	-0.34	1.14	0.08	0.59
Natural Science vs. Education	62.25	0.14	0.93	5.13	0.31	<b>2.41*</b>
Natural Science vs. Misc	47.14	0.16	1.11	0.21	0.01	0.06
<u>Reading Strategies</u>						
Global Strategies	22.33	0.12	0.43	0.11	0.01	0.04
Supplementary Strategies	86.26	0.42	<b>2.08*</b>	-3.67	-0.32	-1.50
Problem-solving Strategies	-42.98	-0.22	-0.73	6.47	0.53	<b>2.63*</b>
<u>Reading Motivation</u>						
Reading Efficacy	84.00	0.73	<b>3.24**</b>	3.38	0.37	<b>2.59*</b>
Extrinsic Utility Value	-26.06	-0.14	-0.86	2.43	0.25	1.37
Reading Involvement	-31.52	-0.24	-1.03	-0.94	-0.09	-0.54
Intrinsic Value and Importance of Reading	-21.05	-0.15	-0.70	-1.32	-0.17	-1.05
Reading Curiosity	23.97	0.21	1.02	-0.46	-0.07	-0.42
Reading for Grades	5.83	0.06	0.34	0.40	0.05	0.35

Note: \* $p < .05$ , \*\* $p < .01$

&lt;Table 7&gt; Mean and Standard Deviations by Majors

	Skilled Learners			Less Skilled Learners		
	N	Mean	SD	N	Mean	SD
Buddhist Culture	3	166.67	40.42	7	21.57	6.63
Humanities	5	304.00	73.01	9	23.33	6.76
Natural Science	17	283.53	87.32	18	24.56	5.87
Social Science	5	308.00	104.02	4	24.75	10.05
Management	11	271.82	110.71	17	25.24	6.00
Education	2	260.00	0	12	28.67	4.31
Miscellaneous	5	332	52.63	3	24.00	7.55

The results suggest that, regardless of proficiency, 'reading efficacy' is a notable type of RM that needs to be enhanced for improved L2 reading comprehension. With a sense of confidence gained, the L2 learners are expected to be more deeply involved in the decoding process of L2 texts. In comparison, the RS that were noted as being significant seemed to be indicating that the learners were in need of different types of strategies vis á vis the type of problems they were having.

## 5. Discussion and Conclusion

In order to obtain a macroscopic view of Korean university L2 learners' reading ability regarding their motivational and strategic profiles, a cross-sectional study was conducted by conceptualizing a skill-specific motivation questionnaire designed for EFL Korean university learners. The present study demonstrated that RM encompasses a variety of constructs, such as, Reading Efficacy, Extrinsic Utility Value, Reading Involvement, Intrinsic Value and Importance of Reading, Reading Curiosity, and Reading for Grades. The multidimensionality of RM provided an explanation for why the learners chose to read or not to read (Kim 2011; Wigfield and Guthrie 1997).

'Extrinsic Utility Value of L2 Reading' was a noted as the leading reason for L2

reading whereas the learners rated themselves as having high apprehension levels towards L2 reading as found from the relatively lower ratings on 'Reading Efficacy' and 'Reading Involvement.' The motivational profile of the university learners also indicated that the learners were well aware of the positive consequence that L2 reading would have on their future, but their goals were restricted to the more transient or immediate goals (e.g., grades). That is, the configuration of the L2 learners' motivational profile indicated that the L2 learners' goals may be self-determined (i.e., intrinsic) to pursue L2 reading, but the types and levels of motivation appeared to be devalued by the more controlled forms of motivation, that is, when their motivation was regulated by external factors, such as grades (Corpus and Wormington 2014). The results indicate that when the construct of motivation for learning is factored for a skill-specific motivation, such as L2 reading, the results provide a more nuanced understanding on how L2 learners may exhibit distinct types of RM.

The RS were favored in the order of PROB, GLOB, and SUP for the learners. While PROB was most frequently utilized, differences were found between the skilled and less skilled learners only for GLOB and SUP. The non-significant difference found for PROB may indicate that the use of the strategy is a common profile of L2 readers regardless of proficiency that learners cannot do without for L2 academic reading. The configuration of RS for GLOB and SUP indicated that it was the skilled learners that demonstrated higher metacognitive awareness for using the selected strategies that they thought would be helpful for comprehending academic texts (Mori 2002).

Examination of the regression models indicated that 'reading efficacy' was a significant RM predictor both the skilled and less skilled learners in helping them improve their L2 reading ability. Wigfield and Guthrie (1995), whose theory of motivation is based on self-efficacy, explained reading efficacy as the belief that one can be successful at reading. The significance of 'reading efficacy' indicates it is a vital type of RM that L2 learners need to be able to perceive by showing for themselves that they are confident in L2 reading. In fact, consciousness-raising of 'reading efficacy' can be pointed as being important in L2 reading instruction since previous analysis on RM showed that the factor was not rated highly by the learners.

Regarding RS, different strategies contributed to reading ability for the skilled and

less skilled learners. SUP was a significant predictor for the skilled learners whereas PROB was a significant predictor for the less skilled learners. This indicates that the learners would have needed different strategies to compensate for their language deficiencies or to stay on track while reading to make better sense of what they were reading. It would have been more critical for the less skilled learners to be able to employ PROB, for instance, when trying to guess the meaning of unknown words or when trying to determine the main idea of a reading passage. Examination of the less skilled learners' PROB in fact indicated that the learners had often employed "I read slowly and carefully to make sure I understand what I read" ( $M = 3.86$ ,  $SD = .666$ ), which indicates that the act of trying to decode the text *per se* had been a demanding task for the learners. For instance, the less skilled learners are likely to have more of language deficit problem (e.g., lack of vocabulary) in comparison to the skilled learners.

For the skilled learners, by employing SUP, the skilled learners would have been able to better make meaning of the reading text at the lexical, sentential and discourse level. As explained by Alderson (2000), comprehension will often consist of parsing sentences, understanding sentences in discourse, building a discourse structure, and then integrating this understanding with what one already knows. Since the skilled learners were being trained to take TOEIC, which requires detailed reading of the text, the learners presumably needed more SUP type of strategies. In fact, the skilled learners' use of "I underline or circle information in the text to help me remember" scored the highest ( $M = 4.13$ ,  $SD = .640$ ) whose use differed significantly from that of the less skilled learners ( $t = 3.919$ ,  $df = 115.756$ ,  $p < .001$ ). The skilled learners may have needed to pay more attention to ensuring that they were able to identify the discourse structure and build a coherent understanding of the text as they read along.

In terms of the learners' affiliated majors, even when the learners had been placed in level-differentiated remedial Freshmen English courses through a placement test at the university where the study was conducted, the results showed that some learners from particular majors (e.g., Buddhist Culture, Education) may eventually need personal attention for individualized guidance in dealing with online reading problems that they

face, which can often go unattended in teacher-fronted classes. The instructor may need to pull out some learners who are falling behind to consult them about the reading problems they face while reading. This may be done by conducting think-aloud tasks or post-reading stimulated recalls with the learners. Also, it needs to be found whether the low ability learners have other factors (beyond the scope of the study) that is contributing towards their poor performance.

The study also reminds us that EFL learning contexts may not be favorable towards providing opportunities for L2 reading. However, if learners' awareness can be raised for pleasure reading (by allowing learners to choose books of their own choice to read at wanted times) and extensive reading (Day and Bamford 1998), this may become an inspirational springboard for them to become hooked onto L2 reading. This may also help them start forming positive mental representations towards texts in English, and increase reading efficacy.

The study is not without its limitations. To more accurately explain learners' L2 reading motivational and strategic profiles in future studies, there is need to include qualitative data (e.g., interviews, think-alouds) as a means of cross-validating the questionnaire results. In proposing future directions for research, a more reliable model of RM and RS of L2 university learners will need to consider a number of additional factors, such as, type of instruction received, reading curriculum, cultural differences, and socio-educational variables (e.g., abroad experience, study styles).

## References

- Alderson, Charles. 2000. *Assessing Reading*. Cambridge: Cambridge University Press.
- Barnett, Marva A. 1988. "Teaching Reading Strategies: How Methodology Affects Language Course Articulation." *Foreign Language Annals* 21.2:109-19.
- Block, Ellen. 1986. "The Comprehension Strategies of Second Language Readers." *TESOL Quarterly* 20.3:463-94.
- Carrell, Patricia L., Joanne Devine, and David E. Eskey. 1988. *Interactive Approaches to Second Language Reading*. Cambridge: Cambridge University Press.

- Corpus, Jennifer Henderlong, and Stephanie V. Wormington. 2014. "Profiles of Intrinsic and Extrinsic Motivations in Elementary School: A Longitudinal Analysis." *The Journal of Experimental Education* 82.4:480-501.
- Csizér, Kata, and Zoltán Dörnyei. 2005. "Language Learners' Motivational Profiles and their Motivated Learning Behavior." *Language Learning* 55:613-59.
- Day, Richard R., and Julian Bamford. 1998. *Extensive Reading in the Second Language Classroom*. Cambridge: Cambridge University Press.
- Deci, Edward L., and Richard M. Ryan. 1985. "The General Causality Orientations Scale: Self-determination in Personality." *Journal of Research in Personality* 19:109-34.
- Deci, Edward L., and Richard M. Ryan. 1995. "Human Autonomy." In *Efficacy, Agency, and Self-esteem*, edited by Michael H. Kernis, 31-49. New York: Springer.
- Devine, Joanne. 1984. "ESL Readers' Internalized Models of the Reading Process." In *On TESOL 83. The Question of Control. Selected Papers from the Annual Convention of Teachers of English to Speakers of Other Languages*, edited by Jean Handscombe, Richard A. Orem, and Barry P. Taylor, 95-108. Toronto: Teachers of English to Speakers of Other Languages.
- Gardner, Robert C. 1985. *Social Psychology and Second Language Learning: The Role of Attitudes and Motivation*. London: Arnold.
- Gardner, Robert C. 1988. "The Socio Educational Model of Second Language Learning: Assumptions, Findings, and Issues." *Language Learning* 38:101-26.
- Gardner, Robert C., and Peter D. MacIntyre. 1991. "An Instrumental Motivation in Language Study." *Studies in Second Language Acquisition* 13:57-72.
- Grabe, William. 2009. *Reading in a Second Language: Moving from Theory to Practice*. Cambridge: Cambridge University Press.
- Hosenfeld, Carol. 1977. "A Preliminary Investigation of the Reading Strategies of Successful and Nonsuccessful Second Language Learners." *System* 5.2:110-23.
- Hudson, Thom. 2007. *Teaching Second Language Reading*. Oxford: Oxford University Press.
- Jung, Sei-Hwa. 2009. "Foreign Language Reading Motivation and Achievement." *English Language Teaching* 21:209-29.
- Kim, Kyung Ja. 2011. "Reading Motivation in Two Languages: An Examination of EFL College Students in Korea." *Reading and Writing* 24:861-81.

- Fathman, Ann, Stephanie L. Knight, Yolanda N. Padron, and Hersholt C. Waxman. 1985. "The Cognitive Reading Strategies of ESL Students." *TESOL Quarterly* 19.4:789-792.
- Field, Andy. 2009. *Discovering Statistics Using SPSS*. London: Sage.
- Mokhtari, Kouider, and Carla A. Reichard. 2002. "Assessing Students' Metacognitive Awareness of Reading Strategies." *Journal of Educational Psychology* 94.2:249-59.
- Mori, Setsuko. 2002. "Redefining Motivation to Read in a Foreign Language." *Reading in a Foreign Language* 14:91-110.
- Nam, Eun-hee. 2014. "University Freshmen's Changes in English Reading Motivation and Reading Strategies." *Modern English Education* 15.1:97-123.
- Preacher, Kristopher J., and Robert C. MacCallum. 2003. "Repairing Tom Swift's Electric Factor Analysis Machine." *Understanding Statistics: Statistical Issues in Psychology, Education, and the Social Sciences* 2:13-43.
- Sarig, Gissi. 1987. "High-level Reading in the First and in the Foreign Language: Some Comparative Process Data." In *Research in Reading in English as a Second Language*, edited by Joanne Devine, Patricia L. Carrell, and David. E. Eskey, 105-20. Washington, D. C.: Teachers of English to Speakers of Other Languages.
- Sheorey, Ravi, and Kouider Mokhtari. 2001. "Differences in the Metacognitive Awareness of Reading Strategies among Native and Non-native Readers." *System* 29.4:431-49.
- Watkins, Marley W., and Debra Young Coffey. 2004. "Reading Motivation: Multidimensional and Indeterminate." *Journal of Educational Psychology* 96.1: 110-18.
- Wigfield, Allan, and John T. Guthrie. 1995. "Dimensions of Children's Motivations for Reading: An Initial Study." *Reading Research Report* 34:9-33.
- Wigfield, Allan, and John T. Guthrie. 1997. "Relations of Children's Motivation for Reading to the Amount and Breadth of their Reading." *Journal of Educational Psychology* 89:420-32.
- Urquhart, Alexander H., and Cyril J. Weir. 2014. *Reading in a Second Language: Process, Product and Practice*. New York: Routledge.
- Yang, Eun-Mi. 2009. "Korean EFL Learners' Reading Motivation and their L2

Reading Behavior.” *English Language and Literature Teaching* 15.4:217-35.

Yuah V. Chon  
Department of English Education  
Hanyang University  
222 Wangshimli-ro, Seongdong-gu, Seoul  
Republic of Korea, 04763  
vylee52@hanyang.ac.kr

Received	Nov. 12, 2017
Reviewed	Dec. 1, 2017
Accepted	Dec. 24, 2017