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Relationships Among Reading Motivation, Reading Strategy Use, and Proficiency in EFL Readers' Learning

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The study aims at finding out whether there are relationships among reading motivation, reading strategy use, and reading proficiency of university students enrolled in EFL reading classes. 168 Students completed two instruments such as modified Mori's inventory and the SORS along with their background information and the scores of TOEIC reading comprehension. A series of *t*-tests, Pearson's product moment correlation, and ordinary least squares regressions were conducted. The results showed that readers' reading motivation and strategy use were of moderate level for overall. There was also a moderate correlation between overall reading motivation and reading strategy use; revealing, the higher reading motivation, the higher the tendency to use high level reading strategy. Moreover, overall reading motivation was moderately and positively associated with students' reading proficiency. More specifically, Intrinsic Value of Reading (IVR) was most significantly associated with reading proficiency. On the other hand, overall and all subcategories of reading strategy use were not significantly related to their reading proficiency. Among all reading motivation categories and all reading strategy categories, IVR and Reading Efficacy (RE) were found to be predictors of reading proficiency. Grounded in this understanding, implications of these findings for promoting effective reading instruction are discussed.

**[reading motivation/reading strategy use/reading comprehension/
읽기동기/읽기전략사용/독해]**

I. INTRODUCTION

Reading is generally recognized as one of the complicated interactive skills for learners in the academic context, including not only the ability to decode text accurately but also the ability to activate schema or background, reading strategy, cognition, and monitoring comprehension. Over the last few decades, reading studies in L1, L2, FL settings have recognized the significance of reading comprehension for language learning. Moreover, it has been commonly accepted that numerous variables for language acquisition have an influence on readers' successful language performance. To enhance learners' reading proficiency on a target language, many researchers have continued to pay attention to the internal factors that affect the development of reading. As internal factors, learners' reading motivation and reading strategy use have been identified as being important determining variables to L2/FL reading and ultimate success in language acquisition (Deci & Ryan, 1985; Guthrie et al., 2007; S. H. Jung, 2009; Logan, Medford, & Hughes, 2011; Mills, Pajares, & Herron, 2007; Morgan & Fuchs, 2007; E. Nam, 2012; Schunk, 1991; Taboada, Tonks, Wigfield, & Guthrie, 2007; Takase, 2007; Wang & Guthrie, 2004).

Within the psychology of language education, motivation, one of affective factors, has been studied as influencing the drive to learners' academic achievement. Along with the learning motivation, it has been suggested that motivational aspects of reading, the motivational drive to read, can have an important impact on academic engagement, which has led to eventually academic performance (Bandura, 1997; Guthrie et al., 2007; Morgan & Fuchs, 2007; Taboada et al., 2007; Takase, 2007). They posited that motivated readers are more likely to read frequently, spend more time reading, and make vital efforts to read than less motivated readers, which in turn positively affects their reading comprehension performance. Consequently, students with higher motivation and interest improved their reading comprehension rather than other students with lower motivation.

Among variables of reading that contribute to successful comprehension, numerous studies have focused on reading strategies utilized by readers. The reading strategy list involved essential items like bottom-up strategies, top-down strategies, making inferences to the recently conceptualized ones, such as: activating schemata, monitoring comprehension, planning, and assessment strategies that comprise metacognitive skills (Cohen, 1998; Mokhtari & Sheorey, 2002). Inspired by the significance of reading strategy for efficient reading comprehension, many researchers started to discover that readers' reading proficiency interacted in their strategy use for meaning-construction. A majority of studies on students' reading strategy use have found that students' reading strategy use was generally correlated with their reading comprehension performance, demonstrating that proficient readers showed a higher degree of strategy frequency than their less proficient peers (Alhaqbani & Riazi, 2012; Block, 1986; Carrell, 1989; Carrell, 1998; K. Hong-Nam

& Page, 2014; Jafari & Shokrpour, 2012; Madhumathi & Ghosh, 2012; Malcolm, 2009; Mokhtari & Sheorey, 2002; Zhang, 2001; Zhang & Wu, 2009). These results offered pedagogical implications determining what strategies to utilize, when to implement these strategies, and how to instruct these strategies to help students for reading comprehension success.

As discussed above, the majority of studies tackled the relationship between learners' reading motivation and their reading proficiency or between learners' reading strategy use and their reading proficiency. In addition to the research, the present study investigated the relationship between students' reading motivation and their reading strategy use, and the factor which was significantly associated with their reading proficiency. To examine the relationships, the researcher conducted self-report questionnaires which were recently accepted to be adequate to EFL students in the academic context. Contrasted with an abundance of literature on reading motivation and proficiency or reading strategy use and proficiency in a L2/FL, little research has systemically addressed relationships among three variables, reading motivation, reading strategy use and proficiency for college students in English reading class. Consequently, this study was designed to address the following research questions:

1) What is the overall pattern of reading motivation and reading strategy use reported by EFL learners in an academic context?
2) What is the relationship between EFL learners' reading motivation and their reading strategy use?
3) What is the relationship between EFL learners' reading motivation, reading strategy use, and their reading proficiency?
4) Which variable is more predictive of EFL proficiency in reading?

II. LITERATURE REVIEW

1. Reading Motivation and Reading Proficiency

With regards to motivation to read, Wigfield and Guthrie (1995) proposed the theory of L1 reading motivation, based on the assumption that learners' reading motivation may be domain-specific, arguing that some learners may be motivated to listen or speak but not to read. Relaying on the hypothesis, they developed the Motivation for Reading Questionnaire (MRQ) in order to create the construct of reading. In assessing their MRQ, they were influenced by a model of general motivation in psychology known as expectancy-value theory (Wigfield, 1994) and other theories such as self-efficacy theory

(Schunk, 1991) and intrinsic motivation theory (Deci & Ryan, 1985). By utilizing this theoretical aspect with three components and 11 sub-components, they have shown that children's reading motivation was multidimensional inventory, and to some degree, different of general motivation constructs.

In the area of L2 acquisition, Day and Bamford (1998) attempted to generate a theoretical model of motivation to read. To reflect the multifaceted aspect of L2 reading motivation they invented constructs including materials, reading ability, attitudes, and sociocultural environment. Even though their model was conceived to implement to L2 settings, it was not supported by empirical evidence. In a study conducted in an EFL environment, Mori (2002) developed a reading motivation questionnaire, relaying on Wigfield and Guthrie's (1995, 1997) L1 reading motivation of a theory generated from empirical study but removed some components because they were not appropriate to university students. In addition, Mori's instrument touched upon items from Gardner's (1985) Integrative Orientation in his socio-educational model of motivation and added seven items to her questionnaire.

Regarding reading motivation as multifaceted construct with multiple constituents (Baker & Wigfield, 1999; Mori, 2002; Takase, 2007), Guthrie et al. (2007) expanded on previous research by including internal motivation constructs (interest, perceived control, collaboration, and efficacy), text genres, specific versus general contexts about motivation. By focusing on two indicators of reading motivation (competency beliefs and goal orientation), Morgan and Fuchs (2007) explored 15 published studies on the relationship between English L1 children's reading motivation and reading skills. The results showed that children's reading skills were correlated with their reading motivation. Highly motivated children read more than less motivated readers, spending more time and investing more effort into comprehending difficult text.

Similarly, Logan et al. (2011) found that while verbal abilities (understanding what readers have read) demonstrated most variance in the successful readers' reading skill, intrinsic reading motivation explained significantly more variance in the low ability readers' reading comprehension assessment as shown in some research results (Lau & Chan, 2003; Taboada et al., 2007; Takase, 2007). Numerous empirical studies have indicated that there is a positive relationship between self-efficacy beliefs and academic achievement (Bandura, 1997; Mills et al., 2007). For example, Mills et al. (2007) reported that students with highly academic self-efficacy willingly tackle challenging tasks, put forth greater effort, and try to accomplish their criteria outcome tasks. Consequently, they discovered self-efficacy for self-regulation was the most significant predictor of intermediate French language performance than the role of motivational constructs such as self-concept, anxiety, and perceived value.

In the same vein, S. H. Jung (2009) examined the relationship between motivation of

EFL Korean university students and their achievement in English reading. Her research presented that the reading motivation of students was significantly correlated with reading achievement, in particular, self-confident engagement among 5 dimensions, which was an important subfactor for predicting reading achievement.

Thus, a great deal of studies on both L1and L2/FL reading motivation have suggested that there is an association between reading motivation and reading comprehension achievement/proficiency (Baker & Wigfield, 1999; S. H. Jung, 2009; Logan et al., 2011; Morgan & Fuchs, 2007; Taboada et al., 2007; Wang & Guthrie, 2004), while some reports contradicted previous findings of most studies (Meniado, 2016; J. Park, 2015). Learners with stronger reading motivation can be expected to read more in a wider range, leading to successful academic reading performance. Most studies on reading motivation show that instructors should be inspired to consider reading motivation in their regular language classes so that their students are motivated in reading comprehension contexts.

2. Reading Strategy and Reading Proficiency

Over the last three decades, most research on L1 and L2 or FL reading has explored the strategies that readers employ in processing written text. Reading strategies can be defined as "those mental processes that readers consciously choose to use in accomplishing reading tasks" (Cohen, 1990, p. 83) and "deliberate, goal-directed attempts to control and modify the reader's efforts to decode text, understand word, and construct meanings out of text" (Afferbach, Perarson, & Paris, 2008, p. 15). Accordingly, the implementation of such strategies contributes to the interactive engagement between text and reader, which helps the reader efficiently understand the text, while sustaining the time of reading.

In L2 reading strategies, the early research investigated the relationship between some cognitive strategies and both good readers and poor readers. The results of some studies displayed that skilled readers are more aware of the strategies and use strategies more flexibly than less skilled readers (Block, 1986; Hosenfeld, 1977). The other studies asserted that higher level strategies developed in L1 can be transferred to L2 and are able to operate alongside lower processing strategies (Cummins, 1980; Hudson, 1982). Moreover, they believed that as language proficiency develops, linguistic cues can be used more efficiently and cognitive strategies are applied through the process.

Recently, recognizing the significant role of metacognition in reading, a vast amount of studies investigated ESL/FL university students' awareness of their reading strategy use through the questionnaire the Survey of Reading Strategies (SORS) by Mokhtari and Sheorey (Alhaqbani & Riazi, 2012; K. Hong-Nam & Page, 2014; Jafari & Shokrpour, 2012; Madhumathi & Ghosh, 2012; Malcolm, 2009; Meniado, 2016; Mokhtari & Sheorey, 2002; Pei, 2014; Yüksel & Yüksel, 2012; Zhang, 2001). Yüksel and Yüksel's (2012) study,

for instance, was designed to determine the Turkish university EFL students' metacognitive awareness of academic reading strategies. In their study, students mostly used problem solving strategies, but the supporting strategies was leastly favored in academic reading, consistent with the results of K. Hong-Nam and Page's (2014) study on Korean EFL students. Being slightly different, Madhumathi and Ghosh (2012) revealed that the Indian students employed the problem solving strategy the most, and they leastly preferred to use global strategies.

A number of studies on learners' metacognitive awareness of reading strategy use have shown that more proficient readers generally use more strategies as a result of their higher degree of metacognitive awareness than their less proficient peers (Alhaqbani & Riazi, 2012; K. Hong-Nam & Page, 2014; Hudson, 2007; Jafari & Shokrpour, 2012; Madhumathi & Ghosh, 2012; Malcolm, 2009; Mokhtari & Sheorey, 2002; Sheorey & Mokhtari, 2001; M. J. Song, 1999; Y. M. Suh, 2013; Zhang, 2001; Zhang, 2008; Zhang & Wu, 2009). In Korean EFL university students' study, M. J. Song (1999) revealed that reading strategies were strongly associated with EFL reading ability when the variable is considered with other predictive variables of EFL reading ability such as grammar, vocabulary, etc. Furthermore, several researches have been conducted to investigate the effects of reading-strategy instruction on reading improvement (Carrell, 1998; H. I. Kim & K. A. Cha, 2014; Pei, 2014; Takallou, 2011; Zhang, 2008). They maintained that explicit strategy instruction raises learners' consciousness both of their own strategy use and of the existence of other strategies. More specifically, Takallou (2011) reported the effect of metacognitive strategies instruction on learners' reading comprehension performance regarding authentic and inauthentic texts in EFL context, using the strategies consisted of planning and self-monitoring. The results showed that subjects under the instruction performed much better in the authentic reading comprehension test.

By contrast, there is a noteworthy experimental report of reading comprehension among Chinese EFL students at a college level (Pei, 2014). The researcher randomly assigned two intact classes as the experimental group (EG) and the other as the control group (CG) and the EG received 15 minutes of explicit reading strategy instruction from the second day of the course for 8 weeks. Results found that EG and CG did not display any significant differences in reading comprehension test and their reported metacognitive reading strategies use and metacognitive awareness via the SORS. This study is consistent in Zoghi, Mustapha, & Maasum's (2010) results that strategy-based instruction using Modified Collaborative Strategic Reading (MCSR) does not improve students' reading comprehension performances.

3. Reading Motivation, Reading Strategy Use, and Reading Proficiency

Despite the proliferation of studies on relations between reading motivation and reading comprehension or between reading strategy use and reading proficiency, there are relatively few studies on the potential relationship among reading motivation, reading strategy use, and proficiency. The following studies investigated the relation among reading motivation, reading strategy use, specifically metacognitive strategy use, and reading comprehension (Y. Kim, 2008; Lau & Chan, 2003; Meniado, 2016; J. Park, 2015). In the study of Chinese L1 reading, Lau and Chan (2003) found that students' reading motivation had significant relations with their ability in using reading strategy and reading comprehension. In the study of Korean EFL students, J. Park (2015) reported that no significant correlation was found between reading motivation and reading strategy use or between reading motivation and reading comprehension achievement, while students' reading comprehension was moderately correlated to their reported reading strategy use. In consistent with J. Park's result, Meniado (2016) provided that there was a positive relation between reading strategy use and reading motivation, not a correlation between metacognitve reading strategy use and reading comprehension, nor a relation between reading motivation and reading comprehension.

Y. Kim (2008) looked into the effect of motivation and reading strategies on EFL Korean university students' English performance. His motivation instrument consisted of four subcategories of motivation (integrative motivation, instrumental motivation, the strength of motivation, and English requirement) suggested by Ely (1986), which is not reading motivation. The results showed that the strength of motivation had the most powerful impact on reading achievement and global strategy turned out to be the prime determining factor in reading performance.

Under the assumption that learning to be a strategic reader can enhance reading motivation and ultimately better reading performance, Ismail, Ahmadi, and Gilakjani (2012) suggested that instructors should teach students using reciprocal teaching strategy, or basic reading, consisting of predicting, questioning, clarifying and summarizing. The strategy is "a method of reading comprehension as an interactive one, in which readers interact with the text as their prior experience is activated and improves their motivation and interest" (p. 11873). They also demonstrated that explicit reading strategy instruction provides an efficient model for instructors to motivate students' participation in their learning and shows students how to use it effectively. Their findings are likely to have pedagogical implications for the reciprocal teaching, as the results indicated a significant effect on the students' reading motivation.

III. METHOD

1. Participants

Participants were 168 students in five elective English reading classes at a university. Ninety-one (54%) participants were females and 77 (46%) were males, between the ages of 19-27 (M = 21.9, SD = 2.05) at the time of data collection. Seventy-two (43%) students were freshmen; 38 (23%) were sophomores; 32 (19%) were juniors; 26 (15%) were seniors. Thirty-seven were humanities majors; 22 were math/science majors; 5 were education majors; 2 were fine arts majors; and 13 were "other."

Most of students took Test of English for International Communication (TOEIC) after they entered university because their mandatory English course, in the first semester of freshman, required students to submit their TOEIC scores for grading. If students have taken a TOEIC test more than once, they were required to fill in the latest TOEIC score. The TOEIC Listening & Reading Test consisted of two equally graded tests of comprehension assessment activities totaling a possible 990 score. In the current research, reading comprehension of TOEIC, which is on a scale from 5 to 495 points, was used to measure English reading proficiency for students. The mean score of students' overall TOEIC was 525 (SD = 177.2), showing the listening score mean = 271.5 (SD = 98.8) and the reading score mean = 254.6 (SD = 89.3) respectively. Based on reading score, participants were categorized into two groups, high (scored equal to or greater than the median value, 250) and low (scored lower than the median value).

2. Instruments

The questionnaires consisted of two parts along with items requesting students' background information and TOEIC scores they have obtained.

First, in order to measure students' reading motivation, the researcher conducted a self-report questionnaire which was based mainly on a questionnaire developed by Mori (2002). At the beginning of the semester, Mori administered a 30-item seven-point Likert scale questionnaire to 447 university students in Japan and extracted four sub-components of EFL reading motivation after varimax rotation: Intrinsic Value of Reading, Extrinsic Utility Value of Reading, Importance of Reading (learning to read in English is important), Reading Efficacy (the ability on reading comprehension). This instrument is adequate to EFL university students but eliminated some items which were not appropriate to the students that participated in the study. For instance, the items "required course" and "to get good grades" were not relevant to participants because the reading class was an elective course and it was not easy to get good grades compared with a mandatory course. The

modified version of the questionnaire (see Appendix 1) consisted of 27 items presented on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) .

Second, reading strategies were collected using the Survey of Reading Strategies (SORS) developed by Mokhtari and Sheorey (2002), which was inspired by Metcognitive Awareness of Reading Strategies Inventory (MARSI) (Mokhtari & Reichard, 2002). The SORS (see Appendix 2) measures three categories of reading strategies, namely, global reading strategies, problem solving strategies, and support strategies. The questionnaire was found to be suitable for the FL or L2 students in academic settings because it is specifically designed to assess L2 learners' metacognitive awareness of reading strategies while reading academic materials. Its format consists of 30 items, each of which used a 5-point Likert scale ranging from 1 ("I never or almost never do this") to 5 ("I always or almost always do this"). The SORS was used in this study because it is the most widely used instrument for measuring EFL students' reading strategy use.

3. Procedures

Data was collected at the beginning of the fall semester, 2015. The set of questionnaires translated in Korean were administered to 179 students during English regular reading class. Students were informed of the purposes and requirements of the survey and asked to provide sincere responses. The questionnaires administration took approximately 20 minutes. All the completed questionnaires were examined; and after discarding 11 incomplete ones, only 168 valid questionnaires were used for statistical analysis.

4. Data Analysis

For analysis, reading motivations were divided into four categories: Intrinsic Value of Reading (IVR), Extrinsic Utility Value of Reading (EUVR), Importance of Reading (IR), and Reading Efficacy (RE): IVR (items 1, 2, 8, 11, 13, 14, 19, 20, 25, 26, and 27), EUVR (items 4, 5, 6, 9, 12, and 17), IR (items 3, 16, 21, 23, and 24), RE (items 10, 15, and 18). The Cronbach alpha for the all items was found to be .89. The internal consistency reliability coefficient for its four subscales was as follows: IVR = .83, EUVR = .79, IR = .75, RE = .60. They indicated a reasonable degree of consistency in measuring their perceived reading motivations among non-native students of English.

The SORS items were also categorized into three subscales: Global Reading (items 1, 3, 4, 6, 8, 12, 15, 17, 24, 20, 21, 23, and 27), Problem Solving (items 7, 9, 11, 14, 16, 19, 25, and 28), and Support Strategies (items 2, 5, 10, 13, 18, 22, 26, 29, and 30). The SORS has been reported as reliable with Cranach's alpha coefficients: overall = 0.88, GLOB = 0.77, PROB = 0.74, SUP = 0.63.

In order to discuss the research questions, first, descriptive analyses for key variables (reading motivation, reading strategy, and reading proficiency) of the total sample were performed to produce the mean and standard deviation values. Second, a series of two-group mean-comparison tests (*t*-tests) were conducted to examine whether there is a difference in the key independent variables (motivation and strategy) based on reading proficiency level (high and low). Third, Pearson's product-moment correlation was estimated to investigate the relationships among the three variables, reading motivation, reading strategy use, and reading proficiency. Fourth, ordinary least squares (OLS) regressions were conducted for reading motivation and reading strategy use to examine the association between these two independent variables and reading proficiency (a dependent variable in this study). All analyses were performed using the Statistical Package for the Social Sciences (SPSS) 19.0.

IV. RESULTS AND DISCUSSION

1. The Relationship Between Reading Motivation and Reading Strategy

1) Descriptive Statistics of Reading Motivation

Table 1 shows the mean and standard deviation values for overall reading motivation score and each subcategory of that. The mean of overall reading motivation score was 3.47 (SD = 0.51), which is of moderate level, while reading academic materials. The mean score interpretation followed Oxford and Burry-Stock (1995), suggesting mean score 3.4 or higher as high, between 2.5 and 3.4 as a moderate, 2.4 or lower as low. The mean of IR score was the highest (M = 3.86, SD = 0.68), followed by that of EUVR (M = 3.70, SD = 0.70), IVR (M = 3.29, SD = 0.59), and RE (M = 3.02, SD = 0.77). As mentioned before, some studies discussed that subscales of reading motivation, intrinsic motivation and self-efficacy belief played a significant role in learners' reading comprehension performance more than other subscales of reading motivation, particularly to less proficient students (Bandura, 1997; Lau & Chan, 2003; Logan et al., 2011; Mills et al., 2007; Taboada et al., 2007; Takase, 2007). However, in this study these variables (IVR and RE) showed relatively low mean scores, which might lead to a decrease in reading interest. To enhance their intrinsic motivation and self-efficacy, instructors should introduce a wide range of reading materials and books which inspire them to choose and to read, giving positive feedback. This could stimulate the students' interest to read more about the subject, becoming active readers. When they are more engrossed and engaged in their reading, they are more intrinsically motivated with self-efficacy.

A series of *t*-tests showed that students who had a high reading proficiency reported higher reading motivation scores (including overall and all four subscales) compared to those who had a low reading proficiency, and these group differences were statistically significant.

TABLE 1

Mean Scores of Reading Motivation

	Total (n = 168)		High group (n = 85)		Low group (n = 83)		t-value
	M	*SD*	*M*	*SD*	*M*	*SD*	
IVR	3.29	0.59	3.51	0.56	3.08	0.54	5.10***
EUVR	3.70	0.70	3.87	0.67	3.53	0.69	3.28**
IR	3.86	0.68	4.05	0.63	3.67	0.67	3.83***
RE	3.02	0.77	3.19	0.78	2.84	0.71	2.99**
Overall	3.47	0.51	3.67	0.46	3.27	0.48	5.37***

**p < .01, ***p < .001

Note. IVR = Intrinsic Value of Reading, EUVR = Extrinsic Utility Value of Reading, IR = Importance of Reading, RE = Reading Efficacy

2) Descriptive Statistics of Reading Strategy Use

Table 2 indicates the mean and standard deviation values for the overall reading strategy use score and each subcategory of that. The mean of the overall reading strategy score was 3.27 (*SD* = 0.45), indicating that students moderately used academic reading strategies in all categories. The mean of the PROB score was the highest (*M* = 3.30, *SD* = 0.56), followed by that of SUP (*M* = 3.23, *SD* = 0.51), and GLOB (*M* = 3.16, *SD* = 0.49), supporting Madhumathi's (2012) study that the Indian students employed problem solving strategy the most and they preferred to use global strategies the least. The predominant use of problem-solving strategies in the present study is compatible with previous studies that discussed the perceptions of reading strategies via SORS (Alhaqbani & Riazi, 2012; Mokhtari & Reichard, 2002; Yüksel & Yüksel, 2012; Zhang & Wu, 2009).

Mokhtari and Reichard (2004) and Sheorey and Mokhtari (2001) posited that problem-solving strategies are mostly used by non-native readers since these strategies were critical for reading comprehension. Moreover, Berkowitz and Cicchelli (2004) reported that the problem solving strategies might be preferred to overcome the comprehension problems and to concentrate on reading effectively. When learners encounter comprehension problems due to an unknown word, they are trained to apply the strategy of "guessing unknown words from context" in courses. Results from a series of *t*-tests showed that students with a high reading proficiency reported higher reading strategy use scores (including overall and all three subscales) compared to those who had a low reading proficiency, however, these group differences were not statistically significant.

TABLE 2

Mean Scores of Reading Strategy Use

	Total (n = 168)		High group (n = 85)		Low group (n = 83)		t-value
	M	*SD*	*M*	*SD*	*M*	*SD*	
GLOB	3.16	0.49	3.23	0.55	3.10	0.39	1.77
PROB	3.50	0.56	3.57	0.60	3.43	0.50	1.58
SUP	3.23	0.51	3.25	0.52	3.20	0.50	0.72
Overall	3.27	0.45	3.33	0.50	3.22	0.40	1.58

Note. No significant difference between high and low groups was found.
GLOB = Global Reading, PROB = Problem Solving, SUP = Support Strategy

3) The Relationship Between Reading Motivation and Reading Strategy Use

Table 3 reflects Pearson's correlation coefficients between reading motivation and reading strategy use. A moderate, positive correlation between overall reading motivation score and overall reading strategy score was observed (r = .48, p < .001). This result supports the finding that reading strategies are positively associated with reading motivation (Meniado, 2016; Sani, Chik, Nik, & Raslee, 2011).

One of subcategories of reading motivation, IVR was positively related to overall reading strategy score (r = .31, p < .001), as well as three reading strategy subcategories (GLOB: r = .27, p < .001; PROB: r = .31, p < .001; SUP: r = .24, p < .01). However, relatively weak correlations were found. Next, a moderate but positive correlation between EUVR and overall reading strategy score (r = .47, p < .001) was found. EUVR was also positively correlated with all three subcategories of reading strategy (GLOB: r = .42, p < .001; PROB: r = .47, p < .001; SUP: r = .35, p < .001).

IR was positively related to the overall reading strategy use score (r = .54, p < .001) and all three subcategories of reading strategy (GLOB: r = .48, p < .001; PROB: r = .54, p < .001; SUP: r = .40, p < .001). It is likely that relatively the students with higher IR frequently use reading strategy. Last, RE showed a weak but positive correlation with overall reading strategy and all three subcategories. However, the relationship between RE and GLOB was the only relationship that was significant (r = .18, p < .05), while those with PROB and SUP were not.

Although not all the motivational factors showed strong relation with strategy use, most of the motivation variables had a positive relation with reading strategy use. The higher the students' reading motivation was, the more reading strategies they utilize, in the line with positive correlation between reading strategies and reading motivation explored by a study of Saudi Arabian college readers of English (Meniado, 2016) and Sani et al. (2011). Among all the motivation variables, IR consistently showed a strong relation with reading strategy use.

TABLE 3

Correlations Between Reading Motivation and Reading Strategy Use (n = 168)

	IVR	EUVR	IR	RE	Overall
GLOB	.27***	.42***	.48***	.18*	.44***
PROB	.31***	.47***	.54***	.08	.47***
SUP	.24**	.35***	.40***	.11	.36***
Overall	.31***	.47***	.54***	.15	.48***

*p < .05, **p < .01, ***p < .001

2. The Relationship Between Reading Motivation, Reading Strategy Use, and Reading Proficiency

Table 4 presents Pearson's correlation coefficients between reading motivation and strategy use and reading proficiency that was measured with participants' TOEIC reading score. Overall reading motivation score was moderately and positively related to reading proficiency (r = .49, p < .001). That is, increases in reading proficiency (TOEIC reading score) were correlated with increases in overall reading motivation score. All four subcategories of reading motivation scores were also positively correlated with reading proficiency. Consistent with the findings discussed in 2.2, the present findings show that students' reading motivation moderately has relations with reading proficiency (S. H. Jung, 2009; Logan et al., 2011; Mills et al., 2007; Morgan & Fuchs, 2007; Taboada et al., 2007; Wang & Guthrie, 2004).

Among four variables in this study, IVR was found to be the most critical factor in their reading comprehension proficiency as several studies demonstrated that the most influential factor is students' intrinsic motivation for L1 reading and L2 reading (Lau & Chan, 2003; Logan et al., 2011; Taboada, et al., 2007; Takase, 2007). In order to promote students' intrinsic motivation, one of the best ways might be to provide them with interesting materials or provide them opportunities to choose their reading materials (Day & Bamford, 1998; Takase, 2007). If they enjoy reading and immerse themselves in interesting text, their comprehension will become better, which in turn could contribute positively to their intrinsic motivation**.**

With respect to the correlation between reading strategy use and reading proficiency, overall reading strategy use score was positively related to reading proficiency (r = .11, p = .14). However, the correlation was not significant. All three subcategories of reading strategy use scores also showed a weak positive correlation with reading proficiency, but the result was not significant. Unlike the established research findings that the use of strategies revealed the strong relation with reading comprehension, in this study, students' strategies use was not significantly related to their proficiency as presented in Meniado's (2016) research. Nevertheless, this does not imply that it is not necessary to incorporate explicit strategy training into the reading instruction procedures since reading strategy use

has been recognized as an important indicator of successful reading in academic settings (H. I. Kim & K. A. Cha, 2014). As Sani et al. (2011) pointed out, it is critical for learners to acquire the different types of reading strategy in order for them to improve their reading motivation, which is a vital element for reading comprehension. Moreover, several studies showed that students' awareness to metacognitive strategies and reading strategy use significantly increased after strategy-based instruction, contributing the enhancement of their reading performance (Carrell, 1998; Pei, 2014; Takallou, 2011; Zhang, 2008).

TABLE 4

Correlations Between Reading Motivation and Strategy Use and Reading Proficiency (n = 168)

	Reading motivation					Reading strategy			
	IVR	EUVR	IR	RE	Overall	GLOB	PROB	SUP	Overall
Reading proficiency	.47***	.31***	.31***	.36***	.49***	.14	.12	.03	.11

***p < .001

3. The Predictor of Reading Proficiency

Table 5 presents results of three OLS regression models. Model 1 only included four subcategories of reading motivation. Twenty-six percent of the variance in reading proficiency was explained by these four reading motivation variables. The results showed that, for every unit increase in IVR score, a 43.64 unit increase in reading proficiency score is predicted, holding the other three subcategories of reading motivation constant (p < .01). In addition, for every unit increase in RE score, a 22.33 unit increase in reading proficiency score is predicted, holding the other three subcategories constant (p < .05). That is, among four reading motivations, two subcategories, IVR and RE are significantly associated with students' reading proficiency.

Model 2 included three subcategories of reading strategy use which explained three percent of the variance in reading proficiency. The results indicated that no subcategory of reading strategy use was significantly associated with the reading proficiency score. Model 3 included both reading motivation and reading strategy use and showed that subcategories of reading motivation and reading strategy explained twenty-eight percent of the variance in reading proficiency. With respect to each subcategory, the results remained the same: IVR and RE were significantly associated with a greater score in reading proficiency (IVR: β = 45.47, p < .01; RE: β = 22.09, p < .05) whereas no strategy subcategories were. Thus, students who scored high in IVR and RE showed greater reading performance, when there were no such significant associations between reading proficiency and two other reading motivation variables (EUVR and IR) and all three reading strategy variables (GLOB, PROB, SUP). The findings of the study are in accord with earlier research findings that

reading motivation is strongly related to successful L2/FL reading.

TABLE 5

Results from Regression of Reading Proficiency on Reading Motivation and Strategy Use (n = 168)

	Model 1			Model 2		Model 3		
	β	*SE*	*Sig.*	β	*SE*	β	*SE*	*Sig.*
Reading motivation								
IVR	43.64	14.03	**			45.47	14.04	**
EUVR	5.39	13.11				7.52	13.14	
IR	18.13	12.90				24.67	13.66	
RE	22.33	9.42	*			22.09	9.52	*
Reading strategy								
GLOB				33.70	21.62	10.21	19.43	
PROB				14.69	17.60	-8.70	16.31	
SUP				-26.97	19.76	-28.07	17.24	
R^2	.26			.03		.28		

*p < .05, ** p < .01; β = unstandardized coefficient, *SE* = standard error

V. CONCLUSION

The study provided another explanation about students' reading motivation, the strategies used when reading, and their reading proficiency. Teachers' explicit awareness on readers' reading motivation and strategy use could contribute to facilitating students' improvement in these variables, which ultimately lead to successful reading comprehension performance. The results of research revealed that the students' reading motivation was of moderate level for overall. Among subcomponents, IR and EUVR showed higher scores respectively, while IVR and RE were of a moderate level. Several studies suggested that intrinsic motivation (IVR) and reading efficacy (RE) for reading play a crucial role in learners' successful reading comprehension, in particular, to less skilled students. Instructors should motivate students to become efficient readers by improving these two subcomponents which are closely related to reading comprehension performance.

With respect to students' reading strategy use, students moderately used reading strategies in all categories. They employed problem solving strategies most frequently and they preferred to use global strategies the least when reading academic materials. Compatible with several previous studies, the students in this study also favored problem solving strategies, which is significant for reading comprehension.

There was a moderate correlation between the overall reading motivation score and the overall reading strategy use score. Two reading motivation subcategories, EUVR and IR, were moderately correlated with overall reading strategy use and all three subcategories of

reading strategy. On the other hand, IVR and IR were positively associated with overall reading strategy use, as well as three reading strategy subcategories, showing relatively weak correlations. Even though all the motivational factors were not found to be a strong relation with strategy use, the motivational variables generally had a positive relation with reading strategy. The higher the students' reading motivation the more reading strategies they use, is consistent with some studies reported on the correlation between reading strategy use and reading motivation.

Overall reading motivation score was moderately and positively related to reading proficiency. Increases in reading proficiency were correlated with increases in overall reading motivation score. All four subcategories of reading motivation scores were also positively correlated with students' reading proficiency. Among four motivational variables, IVR was more significantly associated with reading proficiency as demonstrated in a majority of studies that their intrinsic motivation turned out to be positively related to their language reading. To enhance their IVR, it is necessary that instructors provide a variety of reading materials to inspire students' interest and to get them engaged with reading. In trying to improve students' reading motivation, educators should know what stimulates students' motivation to read. Thus, the findings of reading motivation are in accord with earlier research results that motivation is strongly related to successful L2 reading

Overall reading strategy scores and all three subcategories of reading strategy scores found to be a weak and positive correlation with reading proficiency. Contradictory to much of research findings that metacognition and the use of strategies were strongly related with reading comprehension, the students' reading strategies use in this study was not significantly related to their reading comprehension proficiency. Nevertheless, it does not mean that reading strategies need not to be implemented in reading class. As much research pointed out, strategy instruction is effective in promoting learner autonomy or helping learners take control of their own learning. Accordingly, strategy-based instruction should be explicit, integrated in a regular classroom over a longer period of time. As predictors of EFL reading proficiency, the results of three OLS regression models showed that motivational factors turned out to be the most related to reading comprehension and strongly predicted reading proficiency. Among all the variables in this study, IVR and RE were found to be indicative, which in turn predicted greater reading performance.

Although limited, the results of research presented some empirical evidence that explored the link among reading motivation, reading strategy use, and English proficiency. Although there are some studies on the relationship among reading motivation, reading strategy, and proficiency in Korean contexts, the questionnaires utilized in this study are distinguished from those of Korean EFL learners' previous research. The awareness of reading strategy and motivation factors of reading problems is expected to provide some direction for instructors to plan effective reading instruction for students, in particular, less

proficient students.

REFERENCES

Afflerbach, P., Pearson, P. D., & Paris, S. (2008). Skills and strategies: Their differences, their relationships, and why it matters. In K. Mokhtari & R. Sheorey (Eds.), *Reading strategies of first- and second-language learners: See how they read* (pp. 11-24). Norwood, MA: Christopher-Gordon Publisher, Inc.

Alhaqbani, A., & Riazi, M. (2012). Metacognitive awareness of reading strategy use in Arabic as a second language. *Reading in a Foreign Language*, *24*(2), 231-255.

Baker, L., & Wigfield, A. (1999). Dimensions of children's motivation for reading and their relations to reading activity and reading achievement. *Reading Research Quarterly*, *34*(4), 452-477.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.

Berkowitz, E., & Cicchelli, T. (2004). Metacognitive strategy use in reading of gifted high achieving and gifted underachieving middle school. *Education and Urban Society*, *37*(1), 37-57.

Block, E. (1986). The comprehension strategies of second language readers. *TESOL Quarterly*, *20*(3), 463-494.

Carrell, P. L. (1989). Metacognitive awareness and second language reading. *The Modern Language Journal*, *73*(2), 121-134.

Carrell, P. L. (1998). Can reading strategies be successfully taught? *Australian Review of Applied Linguistics*, *21*(1), 1-20.

Cohen, A. D. (1990). *Language learning: Insights for learners, teachers, and researchers.* New York: Newbury House.

Cohen, A. D. (1998). *Strategies in learning and using a second language*. Longman: London.

Cummins, J. (1980). The cross-lingual dimensions of language proficiency: Implications for bilingual education and the optimal age issue. *TESOL Quarterly*, *14*(2), 175-187.

Day, R., & Bamford, J. (1998). *Extensive reading in the second language classroom*. Cambridge: Cambridge University Press.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.

Ely, C. M. (1986). Language learning motivation: A descriptive and causal analysis. *The Modern Language Journal*, *70*(1), 28-35.

Gardner, R. C. (1985). *Social psychology and second language learning*. London: Edward

Arnold.

Guthrie, J. T., Hoa, A. L., Wigfield, A., Tonks, S. M., Humenick, N. M., & Littles, E. (2007). Reading motivation and reading comprehension growth in the later elementary years. *Contemporary Educational Psychology*, *32*(3), 282-313.

Hong-Nam, Kay, & Page, L. (2014). ELL high school students' metacognitive awareness of reading strategy use and reading proficiency. *TESL-EJ*, *18*(1), 1-16.

Hosenfeld, C. (1977). A preliminary investigation of the reading strategies of successful and nonsuccessful second language learners. *System*, *5*(2), 110-123.

Hudson, T. (1982). The effects of induced schemata on the "short-circuit" in L2 reading: Non-decoding factors in L2 reading performance. *Language Learning*, *32*(1), 1-33.

Hudson, T. (2007). *Teaching second language reading*. Oxford: Oxford University Press.

Ismail, H. N., Ahmadi, M. R., & Gilakjani, A. P. (2012). The role of reciprocal teaching strategy as an important factor of improving reading motivation. *Educational Technology*, *53*, 11836-11841.

Jafari, S. M., & Shokrpour, N. (2012). The reading strategies used by Iranian ESP students to comprehend authentic expository texts in English. *International Journal of Applied Linguistics & English Literature*, *1*(4), 102-113.

Jung, Sei-Hwa. (2009). Foreign language reading motivation and achievement. *English Language Teaching*, *21*(1), 209-229.

Kim, Hyang-Il, & Cha, Kyung-Ae. (2014). A study of Korean university students' metacognitive knowledge through reading strategy instruction. *Modern English Education*, *15*(1), 71-95.

Kim, Youngsang. (2008). The impact of Korean university EFL learners' reading strategies and motivations on performance. *The Journal of English Education*, *20*(4), 105-129.

Lau, K. L., & Chan, D. W. (2003). Reading strategy use and motivation among Chinese good and poor readers in Hong Kong. *Journal of Research in Reading*, *26*(2), 177-190.

Logan, S., Medford, E., & Hughes, N. (2011). The importance of intrinsic motivation for high and low ability readers' reading comprehension performance. *Learning and Individual Differences*, *21*(1), 124-128.

Madhumathi, P., & Ghosh, A. (2012). Awareness of reading strategy use of Indian ESL students and the relationship with reading comprehension achievement. *English Language Teaching*, *5*(12), 131-140.

Malcolm, D. (2009). Reading strategy awareness of Arabic-speaking medical students studying in English. *System*, *37*(4), 640-651.

Meniado, J. C. (2016). Metacognitive reading strategies, motivation, and reading comprehension performance of Saudi EFL students. *English Language Teaching*, *9*(3*),* 117-129.

Mills, N. A., Pajares, F., & Herron, C. (2007). Self-efficacy of college intermediate French students: Relation to achievement and motivation. *Language Learning*, *57*(3), 417-442.

Mokhtari, K., & Reichard, C. A. (2002). Assessing students' metacognitive awareness of reading strategies. *Journal of Educational Psychology*, *94*(2), 249-259.

Mokhtari, K., & Reichard, C. A. (2004). Investigating the strategic reading process of first and second language readers in two different cultural contexts. *System*, *32*(3), 379-394.

Mokhtari, K., & Sheorey, R. (2002). Measuring ESL students' awareness of reading strategies. *Journal of Developmental Education*, *25*(3), 1-10.

Morgan, P. L., & Fuchs, D. (2007). Is there a bidirectional relationship between children's reading skills and reading motivation? *Exceptional Children*, *72*(2), 165-183.

Mori, S. (2002). Redefining motivation to read in a foreign language. *Reading in a Foreign Language*, *14*(2), 91-110.

Nam, Eun-hee. (2012). A study of an effective English reading class at university through analysis of students' reading motivation and perceptions in reading activities. *Modern English Education*, *13*(1), 281-301.

Oxford, R. L., & Burry-Stock, J. A. (1995). Assessing the use of language learning strategies worldwide with the ESL/EFL version of the Strategy Inventory for Language Learning (SILL). *System*, *23*(1), 1-23.

Park, Jeongyeon. (2015). Insights into Korean EFL students' reading motivation, proficiency, and strategy use. *English Teaching*, *70*(1), 57-74.

Pei, L. (2014). Does metacognitive strategy instruction indeed improve Chinese EFL learners' reading comprehension performance and metacognitive awareness? *Journal of Language Teaching and Research*, *5*(5), 1147-1152.

Sani, B., Chik, M., Nik, Y., & Raslee, N. (2011). The reading motivation and reading strategies used by undergraduates in university technology MARA Dungun, Terengganu. *Journal of Language Teaching and Research*, *2*(1), 32-39.

Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist*, *26*(3-4), 207-231.

Sheorey, R., & Mokhtari, K. (2001). Differences in the metacognitive awareness or reading strategies among native and nonnative readers. *System*, *29*(4), 431-449.

Song, Mi-Jeong. (1999). Reading strategies and second language reading ability: The magnitude of the relationship. *English Teaching*, *54*(3), 73-90.

Suh, Young-Mee. (2013). A focus group study on Korean college students' awareness and applications of reading strategies. *Modern English Education*, *14*(2), 145-163.

Taboada, A., Tonks, S. M., Wigfield, A., & Guthrie, J. (2007). Effects of motivational and cognitive variables on reading comprehension. *Reading and Writing*, *22*(1), 54-67.

Takallou, F. (2011). The effect of metacognitive strategy instruction on EFL learners' reading comprehension performance and metacognitive awareness. *Asian EFL Journal*, *13*(1), 272-300.

Takase, A. (2007). Japanese high school students' motivation for extensive L2 reading. *Reading in a Foreign Language*, *19*(1), 1-18.

Wang, J. H. Y., & Guthrie, J. T. (2004). Modeling the effects of intrinsic motivation, extrinsic motivation, amount of reading, and past reading achievement on text comprehension between U.S. and Chinese students. *Reading Research Quarterly*, *39*(2), 162-186.

Wigfield, A. (1994). Expectancy-value theory of achievement motivation: A developmental perspective. *Educational Psychology Review*, *6*(1), 49-78.

Wigfield, A., & Guthrie, J. T. (1995). *Dimensions of children's motivations for reading: An initial study.* Athens, GA: National Reading Research Center.

Wigfield, A., & Guthrie, J. T. (1997). Relations of children's motivation for reading to the amount and breadth of their reading. *Journal of Educational Psychology*, *89*(3), 420-432.

Yüksel, İ., & Yüksel, İ. (2012). Metacognitive awareness of academic reading strategies. *Procedia - Social and Behavioral Sciences*, *31*, 894-898.

Zhang, L. J. (2001). Awareness in reading: EFL students' metacognitive knowledge of reading strategies in an acquisition-poor environment. *Language Awareness*, *10*(4), 268-288.

Zhang, L. J. (2008). Constructivist pedagogy in strategic reading instruction: Exploring pathways to learner development in the English as a second language (ESL) classrooms. *Instructional Science: An International Journal of the Learning Sciences*, *36*(2), 89-116.

Zhang, L. J., & Wu, A. (2009). Chinese senior high school EFL students' metacognitive awareness and reading-strategy use. *Reading in a Foreign Language*, *21*(1), 37-59.

Zoghi, M., Mustapha, R., & Maasum, T. N. R. B. T. M. (2010). Collaborative strategic reading with university EFL learners. *Journal of College Reading and Learning*, *41*(1), 67-94.

APPENDIX 1

Motivational Questionnaire

1. By learning to read in English, I hope I will be able to read English novels.
2. I get immersed in interesting stories even if they are written in English.
3. Learning to read in English is important in that we need to cope with internationalization.

4. I am learning to read in English because I might study abroad in the future.
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).
6. Even if reading were not a required subject, I would take a reading class anyway.
*7. I am learning to read in English merely because I would like to get good grades.
8. I tend to avoid long and difficult English passages.
9. I would like to get a job that uses what I studied in English reading class.
10. I am good at reading in English.
11. I like reading English novels.
12. By learning to read in English, I hope to be able to read English newspapers and/or magazines.
13. It is fun to read in English.
14. I like reading English newspapers and/or magazines.
15. English reading is my weak subject.
16. Learning to reading in English is important because it will be conducive to my general education.
17. By learning to read in English, I hope to learn about various opinions in the world.
18. My grades for English reading classes at junior and senior high schools were not very good.
19. I enjoy the challenge of difficult English passages.
20. I do not have any desire to read in English even if the content is interesting.
21. Learning to reading in English is important because it will broaden my view.
*22. By learning to read in English, I hope to search information on the Internet.
23. Reading in English is important because it will make me a more knowledgeable person.
24. It is a waste of time to learn to read in English.
25. I would not voluntarily read in English unless it is required as homework or assignment.
26. I tend to get deeply engaged when I read in English.
27. It is a pain to read in English.

Note, Items with * are eliminated items.
Items 8, 15, 20, 24, 25, and 27 were reversed-coded

APPENDIX 2

Reading Strategy Questionnaire

1. I have a purpose in mind when I read.
2. I take notes while reading to help me understand what I read.
3. I think about what I know to help me understand what I read.
4. I take an overall view of the text to see what it is about before reading it.
5. When text becomes difficult, I read aloud to help me understand what I read.
6. I think about whether the content of the text fits my reading purpose.

7. I read slowly and carefully to make sure I understand what I am reading.
8. I review the text first by noting its characteristics like length and organization.
9. I try to get back on track when I lose concentration.
10. I underline or circle information in the text to help me remember it.
11. I adjust my reading speed according to what I am reading.
12. When reading, I decide what to read closely and what to ignore.
13. I use reference materials (e.g., a dictionary) to help me understand what I read.
14. When text becomes difficult, I pay closer attention to what I am reading.
15. I use tables, figures, and pictures in text to increase my understanding.
16. I stop from time to time and think about what I am reading.
17. I use context clues to help me better understand what I am reading.
18. I paraphrase (restate ideas in my own words) to better understand what I read.
19. I try to picture or visualize information to help remember what I read.
20. I use typographical features like bold face and italics to identify key information.
21. I critically analyze and evaluate the information presented in the text.
22. I go back and forth in the text to find relationships among ideas in it.
23. I check my understanding when I come across new information.
24. I try to guess what the content of the text is about when I read.
25. When text becomes difficult, I re-read it to increase my understanding.
26. I ask myself questions I like to have answered in the text.
27. I check to see if my guesses about the text are right or wrong.
28. When I read, I guess the meaning of unknown words or phrases.
29. When reading, I translate from English into my native language.
30. When reading, I think about information in both English and my mother tongue.

Examples in: English
Applicable Languages: English
Applicable Levels: Tertiary

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